

## Annual Report

July 1, 2004 - June 30, 2005

R.S. McLaughlin Professor and Chair

Dr. R. K. Reznick

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

Dr. R. Richards - Vice Chair, Clinical

Dr. B. Alman - Vice-Chair, Research

### Surgeons-in-Chief

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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 - James Wallace McCutcheon Professor and Chair - University Health Network

### University Division Chairs

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Dr. R. Weisel - Cardiac Surgery

Dr. Z. Cohen - General Surgery - Bernard and Ryan 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

### Co-ordinator and Editor

Pamela Roberts - Academic HR/Payroll Administrator

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



It will soon be three years that I have had the privilege of serving as Chair of this Department. It has been an eventful three years to say the least, but I truly feel more energized than ever before and have strong feeling of indebtedness for having been given the opportunity to serve this department. My preference for making the complex decisions that need to be made in the Department, is one of consensus building and I continue to benefit from the wise council of many in our department's leadership, especially our senior executive. I am particularly grateful to them for their advice and support.

Last year we unrolled our strategic plan. One of the fundamental pillars of that plan was a commitment to adapt to a changing surgical workplace. Consistent with that philosophy we have implemented two new programs to the Department and are progressing on plans for a third. The first is focused on the issue of our families. We hope to be more supportive of our departmental members who have young children. The

Department has contracted with Kids and Company, a multi-campus day care operation, to co-fund any member of our faculty who would like to use their day care facilities. The second and allied issue, is that through an arrangement we have signed with Sun Life, we will now be providing health care benefits to our new recruits who are not otherwise eligible for University or Hospital benefits. Third, we are working with the Vice President of Human Resources, at University of Toronto and the President of University of Toronto Asset Management Corporation, to start work on a pension plan arrangement for our incoming faculty.

This past year has also seen the introduction of a new clinical faculty policy. The need for this policy stems from fundamental differences between clinical faculty and other members of the university academic community. First, virtually every faculty member in our Department wears two hats, a hospital one and a university one. Second, we derive the lion's share of our income from employment as a self-professional. Third, our job descriptions vary greatly within and between groups, especially in regard to the time we have apportioned to academic activity.

Notwithstanding, these fundamental differences between clinical faculty and other members of the university, we have until now, been governed by the same policy and procedures as any university faculty, and more appropriately put, their has been a policy vacuum with respect to clinical faculty. The advent of this new policy has meant that we have had to work hard towards ensuring that all 31 of our divisions have a viable well-functioning practice plan; and that these plans are congruent with a set of principles put forth by both our Department's finance committee and the Dean's office. We have had three practice plan summits and innumerable meetings, which have resulted in three practice, plan templates having been put forward. I am encouraged by the response. Most of our thirty-one groups have affirmed a template and are making plans to operationalize one of the plans.

We have a faculty rich in talent and diversity. A testament to that is that in this last year, seven faculty were promoted to associate professor: including, Fred Brenneman, Peter Dirks, Paul Marks, Andy Smith, David Stephen, David Urbach and Herb von Schroeder. Five faculty; John Bohnen, Mark Cattral, Mike Cusimano, Karen Davis and Fred Gentilli were all promoted to Full Professor. The standards for promotions in our Department and at our university are as rigorous as any institution I know. All of our surgeons who were promoted last year should be justifiably proud.

Probably the most important thing we do in Academic Surgery is to fortify our ranks with talented new recruits. This past year we have appointed five outstanding women and seven men to our Department.

This past year, we lost three dear and respected colleagues. A mention of their passing in an annual report does not do justice to the magnitude of their contributions. Suffice it to say, we will all miss and remember with respect and fondness, and indeed always be in awe of the extraordinary accomplishments of Harold Hoffman, Bill Laugheed and Bill Bigelow. This Department has indeed truly lost three giants of Surgery in this past year.

In my opinion, the most important event of the last year, and the one that may have the most far-reaching consequences for our Department was a legal decision. While the 40-year-old debate about the strengths and weaknesses of our Canadian healthcare system rages on, the Supreme Court's decision of June 9, 2005 in the case of Chaoulli vs. Quebec (Attorney General) is a significant turning point that challenges the Canada Health Act and may well have implications for how we practice medicine in the future. Notwithstanding, that the Supreme Court has stayed this decision for a one-year period, it is the turbulence provoked by the June 9th decision that characterizes the current state of affairs. This was made crystal clear when on August 18<sup>th</sup>, nearly two thirds of Canadian Medical Association delegates voted in favor of an amendment that says that "...patients who can't get timely access to care should be allowed to rely on private health insurance and private-sector health services."

A series of commentaries in the August issue of the Canadian Medical Association Journal crystallizes the debate. For example, Albert Schumacher, the Past President of the Canadian medical Association, has said that universal access to quality medical care is empty if timely access is denied. The CMA believes that the Chaoulli decision delivered the same message: “it is a stinging indictment of governments’ failure to solve access problems.”



**Office of the Chair in the Historical Banting Institute**

The views of the CMA, and many of our colleagues throughout the country are in stark contrast to individuals like Stephen Lewis. Lewis claims, “...that the real action needed for our healthcare system includes primary health care reform, a more rational division of labor, quality improvement and a remedy for inequities in pay scales that overvalue day surgery assembly lines and undervalue geriatricians and rheumatologists.” He adds “... according to organized medicine, system failings are always someone else’s fault. Somehow Mr. Zeliotis’s hip surgery delay was caused by the nature and stinginess of the single-payer system. Nothing, apparently, is attributable to physicians retaining control over their individual weight lists and refusing to standardize criteria for assessing and prioritizing patients.”

This view is fortified by comments such as this one from Lawrie McFarlane, “Forty years of labour have been cast aside in a spasm of judicial intemperance, and a radical, if not catastrophic remedy has been imposed to solve a narrow and possibly transitory problem.”

We need to learn from other jurisdictions. Richard Smith, former editor of the BMJ claims that the private system in England has turned from “pariah to saviour”, that most private providers in the ramped up privatization environment in the UK is being provided by non-English companies and that hospitals that can attract patients and treat them for less, will flourish Britain’s NHS.

I am confident that if we polled our entire Department, we would not have consensus of view. Nor should we. This is a complex debate and we need to genuinely respect an individual practitioner’s right to their fundamental view. However, I am more confident than ever that what is absolutely needed in our Department is to be prepared. The winds of change are upon us, and unless we have a cogent and agreed-to plan at hand, we will be forced to react slowly and possibly worse, function in a damage control way.

Even a limited study of the events of the past decade in the United States informs us, that those departments of surgery that were quick to react to changes and understood the market forces in their jurisdiction, have flourished. Those that reacted slowly, or did not react at all have failed. Unquestionably our system is different. However, if these winds of change bring upon us any significant aliquot of privatized medicine, there is the potential for massive chaos in our academic healthcare community. We are currently not poised to cope or compete in a privatized system. Our university and hospital structures are complex, and they can in no way be defined as nimble. There is absolutely no question, that if in any way we start to suffer in terms of inadequate patient volumes, our academic missions of teaching and research will be hit hard. This has certainly been the case in a multitude of what were bastions of American academe, as they fought what was often a losing battle, against health maintenance organizations, preferred provider systems, big business, powerful insurance companies and large hospital system conglomerates.

I believe we need a plan. In the immediate future, I will be organizing for this Department, a series of debates and strategy sessions. My goals in the exercise are twofold. The first is to develop a consensus statement on the issue of privatization within our Department. The second and most important, is to develop strategies for response to a variety of scenarios. While each of us may be politically inclined to have a certain view on this issue, I am confident that it will be wise to prepare for many possible outcomes. It will do us no good to cling to old ways and maintain a moral high ground if privatized medicine crashes in upon us. Similarly, if our current health system is maintained, we will do best to be proactive in affecting meaningful change to improve efficiencies and capacity.

Our research mission continues to flourish. This year we saw unprecedented growth in our research funding. In 2004-2005 we captured \$47,386,000! This incredible amount typifies the continuing escalation in the number and magnitude of our major research accomplishments. Under Ben Alman's leadership, there has been a re-visioning exercise as we continue to make great gains in the quantity and quality of the enterprise. Ben and his research committee, plan to improve the depth of research by building new collaborations with fundamental researchers, by starting a program of seminars on research topics of interest to the Department of Surgery and by the development of Surgeon-Scientist University rounds.

Importantly, a decision has been made to adopt an expanded view of scholarship. The research committee plans to establish a Scholarship in Surgery program, that will run parallel to our Surgeon-Scientist program and focus on training in areas that are oriented to non-research intensive graduate degrees.

There continues to be many, many research successes. Since 2000, a total of eleven researchers have received PREA awards; we have three Canada Research Chairs, and we have seen million dollar grants jump from three in 2002, to eight in 2004.

Our Surgeon-Scientist Training Program continues to flourish. We currently have 32 residents in the program, consisting of 14 new entrants and 18 residents continuing their graduate studies. Astoundingly, 92% of our trainees have attracted external salary support.

We continue to work hard on our fund-raising efforts. Last year, thanks to the efforts led by Zane Cohen, we completed and instantiated the Langer Chair in General Surgery. This year, thanks to efforts by Sender Herschorn in Urology, the Barkin has reached its initial goal for the establishment of this Chair. Our current efforts now are focused on a new Chair in Plastic Surgery, the acquisition of a surgical robot, augmenting our currently high level of award capture and establishing a planned giving program.

Under John Bohnen's leadership, we have continued to flourish in the education arena. When we seriously reflect on all of our accomplishments, undoubtedly for many of us, the accomplishment of teaching tomorrow's surgeons, will stand out as the most meaningful. This has been an eventful year in education. David Backstein has launched a new curriculum for clerkship. Our medical school is on the verge of expanding with negotiations underway to have a new campus in Mississauga. Our decanal team is changing. David Naylor, our current Dean has been named President of the University and Catherine Whiteside is now Interim Dean. Jay Rosenfeld, a developmental paediatrician, is our new undergraduate Dean; Sarita Verma, a family doctor and lawyer from Queen's is our new postgraduate Dean, and Ivan Silver, a geriatric psychiatrist is our new Dean of Continuing Medical Education. This year, we created a new task force of Fellowship affairs. This is being led by David Latter, and will take a serious look at educational and financial issues for our more than 200 fellows in this Department.

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Last year I reported to you that we were seeking funding to support the expansion of our Surgical Skills Lab. We have now raised 2.4 million dollars and construction is underway. Our Skills Centre continues to be an international model, now serving as a benchmark standard for the accrediting process of skills labs by the American College. Under Helen MacRae's leadership we have exceeded expectations in our missions of resident education, skills related educational research and continuing education events for surgical practitioners.

In summary this has been an exciting year for our Department. It has been gratifying to see our strategic plan in action, as we attempt to break the boundaries. I am very grateful to our wonderful faculty. During my initial three years as chair I have received nothing but encouragement and nothing but support for new initiatives. I have certainly worked harder than ever before, but each moment has been filled with important challenges and most importantly, a deep respect I have learned for the caliber of individuals in this Department.

**David Backstein** - Director, Surgical Clerkship



During the 2004-2005 academic year, the Department of Surgery Undergraduate Education program continued to evolve and improve. Following the successful Faculty of Medicine accreditation process in May 2004, for which Surgery made a very positive contribution, we have worked to further enhance our undergraduate commitments.

The amount of Undergraduate teaching in the Surgical Skills Centre continued to increase this year. As of September 2005, the Phase I curriculum has been significantly modified further to include a full week of centralized, integrated seminar and surgical skills sessions. Included in this new course will be a half-day of Trauma teaching organized by Dr. Jameel Ali. This new format will provide a launching pad for students to develop surgical skills and knowledge while providing the Department with improved capacity to manage content and evaluation.

On March 10, 2005, the first "Introduction to Surgical Clerkship Night" was held with a very large contingent of second-year medical students in attendance. This night provided students with an advanced look at the surgical clerkship and we plan to continue holding this on a yearly basis. Another highly successful iteration of "Residents as Teacher Day" was led by Dr. John Murnaghan at Sunnybrook Estates on July 15, 2005.

A number of personnel changes occurred in 2004-2005. Dr. Stan Hamstra left the Department after eight years in the position of Director of Education Research and Evaluation. Ms. Pat Flaman retired after more than a decade of running the Surgical Education Office at the Wightman-Berris Academy. Dr. Robert Mustard has stepped down as Clerkship Coordinator at the Fitzgerald Academy. We thank all of these individuals for their years of hard work and devotion to undergraduate education.

Over the past academic year, several appointments within the realm of undergraduate education occurred. Dr. Ron Kodama took on the newly formed role of Pre-clerkship Co-ordinator and will oversee Surgery's involvement in all educational matters, in undergraduate years one and two. Dr. Robert Stewart replaced Dr. Mustard as Clinical Clerkship Co-ordinator for the Fitzgerald Academy and will assume a position on the Undergraduate Education Committee. Dr. Ted Gerstle was named Clerkship Co-ordinator for the Hospital for Sick Children. Dr. Robin Richards took on the role of Clerkship Co-ordinator for the Peters-Boyd Academy after Dr. Peter Chu stepped down. Dr. Fred Gentili was appointed Clerkship Co-ordinator for the Wightman-Berris Academy. Dr. Eric Massicotte took over as the Neurosurgery Co-ordinator of the Phase II Central Lectures from Dr. Michael Cusimano. We also welcomed Ms. Elizabeth Doherty to replace Pat Flaman at the Surgical Education Office of the Wightman-Berris Academy.

This year's W.T. Aikins Award in the category of Course/Program Development and Coordination was won by Dr. Jameel Ali (Division of General Surgery), and Dr. David Backstein (Division of Orthopaedic Surgery) was awarded the E. Bruce Tovee Award for undergraduate teaching. Dr. Peter Stotland, General Surgery resident, won the D.R. Wilson Award, for undergraduate teaching by residents.

As Director of the Surgical Clerkship I would like to recognize the outstanding contributions made by all faculty that teach Surgery to medical students, at the University of Toronto. Your continued efforts in the O.R., on the ward and in the Surgical Skills Centre, are greatly appreciated by the students and make a critical contribution to their development as future physicians.



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



The Department of Surgery residents, fellows and faculty members contributed to another year of accomplishments, challenges and milestones in 2004-2005.

Surgery entry level programs filled all of our first year positions in July 2004 through the Canadian resident match. In 2004-2005, 246 trainees participated in our 11 programs (Cardiac Surgery, General Surgery, Neurosurgery, Orthopedic 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, 170 clinical fellows and 19 elective residents came from many countries to seek further clinical training. Thirty-one residents received research training within the Surgeon Scientist Program, led by Dr. Ben Alman, our new Vice-Chair, Research.

Residents finishing Core Surgery (years one and two) and senior residents were highly successful in Royal College of Physicians and Surgeons (RCPSC) in-training and fellowship exams. Thirty-three of 35 residents passed their Royal College fellowship examinations.

Surgery residents participated in numerous educational events that complement their involvement in patient care. Besides the large number of specialty sessions provided by each division, the department sponsors educational series for Core Surgery residents. Dr. Bob Mustard continues to run the highly-rated Principles of Surgery (POS) Lecture series and provides a practice POS exam from questions he has created around the lectures and from the surgical literature. Twice yearly, Core Surgery residents participate in the Residents Forum, in which they give feedback about issues such as work conditions. In July, Core Surgery residents attended the annual half-day program "The Surgeon in Society." This year's theme was "change" and its relation to surgical practice. First year residents attended in July, an orientation day that provided them a chance to meet education providers in a relaxed setting with tasty food. Several resident volunteers, enticed by more food and a chance to promote their specialities, participated last fall in a career night for senior year medical students interested in Surgery. In the summer, residents in their third-year of clinical training attended a "residents as teachers" workshop led by Drs. John Murnaghan and Stan Hamstra; this highly rated event supports residents' triple mission, of providing patient care, achieving their own education and helping to train medical students and junior residents. Last but not least, Dr. Jameel Ali led the department's provision of Advanced Trauma Life Support training, for Core Surgery residents.

Dr. Helen MacRae continued to direct the Surgical Skills Centre (SSC) including training Core Surgery residents in basic operating room skills and theory, in a controlled setting, under the supervision of master teachers of surgical technique. Besides Core Surgery training, the SSC provides advanced skills training, for surgical divisions and the Departments of Otolaryngology and Obstetrics/Gynecology.

Each divisional Program Director and their trusty assistants have worked hard to foster residents' well-being, organize social events and prepare their trainees for exams and clinical practice. Thanks to: Gail Darling (Thoracic Surgery); Doug Hedden (Orthopaedic Surgery); Ron Kodama (Urology); Jack Langer (Paediatric General Surgery); David Latter (Cardiovascular Surgery); Ron Levine (Plastic Surgery); Tom Lindsay (Vascular Surgery); Lorne Rotstein (General Surgery); Carol Swallow (General Surgical Oncology); and Chris Wallace (Neurosurgery) and their able assistants: Liz Doherty, Karen Hodgson, Antonella Iannaccio, Eddy De Oliveira, Willa Hart, Gayle Burke, Leah Gabriel, Jan McEvoy, Jane Hanes and Sandi Amaral, respectively.

Each year, hospitals, surgical divisions and the Department of Surgery award faculty members and residents awards for excellence in postgraduate teaching. Among the key departmental awards, Dr. David Latter won the Tovee Postgraduate Award for sustained, outstanding contributions to postgraduate training and Dr. Peter Stotland won the D. R. Wilson Education Prize for outstanding teaching of medical students by a surgical resident. Dr. Michael Ko received first prize in the Gallie competition and Dr. Michael Lekas received second prize. Congratulations to all, for these significant accomplishments.

This year saw growth, changes, challenges and opportunities for our residency programs. The online evaluation system for residents, faculty and clinical rotations, "POWER" had its ups and downs, but by year's end was working much better than last year, with fewer glitches. We witnessed a gratifying increase in resident feedback on teachers and rotations through the web based system. On the negative side, our Director of Education Research and Evaluation, Dr. Stan Hamstra, has left for an exciting research opportunity in Ann Arbor, Michigan. We will miss Stan, and wish him good times and a great future in education research!

The clinical fellowship program in the department, has grown to almost equal numbers with the residency program, yet there are few guidelines, educational or otherwise, for surgeons at this advanced level of training. To address this need, a Clinical Fellow Task Force, chaired by Dr. David Latter, is working to recommend processes and infrastructure that will support our mission to train fellows superbly, without affecting adversely our residency programs. We expect that a formal clinical fellowship program will be set out in 2005-2006.

As we approach RCPSC accreditation in 2007, the coming academic year will be a time of internal reviews of each of our 11 accredited residency programs. We look forward to this exercise in self-evaluation, both to improve our educational offerings and to prepare us for external review.

Residents, fellows and faculty surgeons have received willing and warm-hearted help from the administrative support team of Tess Weber, Miriam Rotman, Jean DeFazio and Gem Ofreneo. We look forward to another great year in 2005-2006.

**Benjamin Alman** - Vice Chair, Research

This was a dynamic year for Research in the Department of Surgery. Dr. Ori Rotstein stepped down as Vice-Chair, Research following an exceptional term during which there was phenomenal growth in the department's research enterprise. I took over this position at the end of 2004, and am following in his footsteps to continue to build our research capacity. One of the unique strengths of the University of Toronto is the potential to generate high-quality, in-depth, fundamental research, and develop this knowledge into improved clinical care. In the upcoming years, the Department will be working to build the 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.

The Department had a fantastic year for research, with our total research funding exceeding \$40,000,000, as faculty and residents grant accrual continued to rise. Our faculty continues to be recognized for research not only locally and nationally but internationally as well. This was confirmed by our peer-reviewed publications, in which we published in the highest quality peer-reviewed journals including *Nature* and the *New England Journal of Medicine*.

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. Fourteen new residents entered the SSP, giving the Program 14 MScs, 3 MEds, 13 PhDs and one PDF resident involved in full-time research. The Johnson & Johnson Medical Products Surgeon-Scientist Fellowship Program's fifth year of commitment, allowed us to support four SSPs. These were Daniel Martin (supervisors: Drs. Michael Sefton & John Semple), Carol-Anne Moulton (supervisor: Dr. Richard Reznick), Cian O'Kelly (supervisor: Dr. Christopher Wallace) and Patrick Tawadros (supervisor: Dr. Ori D. Rotstein).

The 31<sup>st</sup> Gallie Day underwent a transformation by having the poster presentation session on the same day and place as the oral presentations. This combined session drew the largest attendance and resulted in a more diverse crowd, representing the various disciplines and training backgrounds that are represented by our departmental members. Nine of our Surgeon-Scientist Program residents presented their work in the oral portion of the program and over 50 research trainees from a variety of backgrounds and surgical divisions, working under the supervision of a member of the Department, presented a scientific poster. Dr. David N. Herndon, the Jesse H. Jones Distinguished Chair in Burn Surgery, University of Texas, Galveston, was the Gordon Murray lecturer and Gallie Day judge.

Dr. Michael A. Ko (General Surgery resident supervised by Dr. Carol Swallow), received the first prize in the Gallie Competition for his work entitled "Sak/Plk4 is Haploinsufficient for Hepatocellular Carcinogenesis and Regulates p53". Dr. Michael C. Lekas (Cardiac Surgery resident supervised by Dr. Duncan Stewart) received second place for his work "The Critical Role of the Angiopoietins in Neovascularization of the Ischemia Hindlimb: Therapeutic Angiopoietin-2 Gene Transfer Enhances Revascularization". Michael C. Lekas also received first place in the McMurrich Award, for the best poster presentation in a fundamental biology area for his poster entitled "Therapeutic revascularization induced by angiopoietin-2 gene transfer is synergistically enhanced by combination with VEGF gene in the rat hindlimb ischemia model".

The two second place recipients of the McMurrich award were Ananta Gurung, for his poster entitled "Elevated beta-catenin and Tcf-dependent transcription and the formation of hyperplastic cutaneous wounds in mice administered lithium chloride," and Sean Tjandra for his poster entitled "Type 1 interferon signaling promotes tumor formation in aggressive fibromatosis." Both second place winners were supervised by Dr. Ben Alman. There was also a tie for third place, with Poney Chiang receiving third prize for his poster entitled "Mutational analysis of AAA+ motifs in *Pseudomonas aeruginosa* Type IV pilus motor proteins" supervised by Drs. Lori Burrows and Christopher Kim, receiving third prize for his poster "Maximizing ventricular function with multimodal cell-based gene therapy" supervised by Dr. Terrence Yau. The Wyeth Award for best poster presenting an educational or clinical epidemiology project went to Jason Park for his poster "Skill transfer from colonoscopy simulator to real patients: Results of a randomized controlled study" supervised by Drs. Stanley Hamstra, Helen MacRae, and Richard Reznick.

Again this year, faculty accomplishments were astonishing. Too many awards and honors were received 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: The Armstrong-Peters Prize for young investigators was awarded to Dr. Peter Dirks, for his work in tumour stem cells. Dr. Stephen Fremes was honoured with the Lister Prize for a senior investigator, for his outstanding work on clinical trials in cardiovascular surgery. This year's Bernard Langer Surgeon Scientist Award recipient, given to the most outstanding

graduate of the Surgeon-Scientist Program, was Dr. Ian McGilvray. Dr. Steven Gallinger was recognized for his contributions to the Department by being awarded the Charles H. Tator Surgeon-Scientist Mentoring Award. This award recognizes Steve's excellence in research and commitment to the SSP mentoring and dedication to the promotion of Surgeon-Scientists.

Dr. Lori Burrows received the 2004 Elsie Winifred Crann Memorial Trust Award in Medical Research. Dr. Geoff Fernie received over 7.5 million dollars from The Canada Foundation for Innovation for his research into the prevention of falls and fractures. Over 12 new grants were awarded by the Canadian Institutes of Health Research. The Premier's Research Excellence Award (PREA), was awarded to Dr. Cindi Morshead. Our new faculty members were recognized through their receipt of local competitive University grants including the Connaught New Staff Matching Award (Dr. Robert Gryfe) and the 2004 Dean's Fund Competition for New Staff Drs. (Anne Agur, Adam Dubrowski, Alexandra Easson, Mojgan Hodaie, Michael Taylor and Alexander Veloumian). Dr. Peter Kim received over \$1,800,000 from the Ministry of Health and Long-term Care for his project on community-based materno-fetal health care network.

The Departmental Research Committee welcomed new members this year. We focused on expanding the breadth of research activities in the Department, establishing links to emerging research areas (such as nano-technology, which will be the focus of next year's Gallie Day); 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 coordination of all aspects of the Departmental research activities. She accomplished this during the move of the Research Office from the Toronto General Hospital to the Hospital for Sick Children, and now preparing for her move, once again, to what will hopefully be a permanent location on the thirteenth floor of the Toronto Medical Discovery Tower in MaRS in August of 2005.

In summary, there have been many changes in the Research Office over the past year, but we made fantastic research accomplishments as a department. In the upcoming years, we plan to open new avenues of investigation and improve our research infrastructure to increase the breadth and depth of our work, ultimately improving the outcome for our patients.

**Richard Weisel** - Chair



The Division of Cardiac Surgery achieved recognition for academic achievement as well as outstanding cardiac surgical results, at the annual meeting of the American Association for Thoracic Surgery this year. Dr. Tirone David delivered the Presidential Address entitled “For Everything There is a Season.” Dr. Richard Weisel delivered the Honoured Speakers Address entitled “Cardiac Regeneration.” Dr. William Williams received the Mentorship Award and Dr. Paul Fedak received the C. Walton Lillehei Resident Award.

## **Clinical**

The waiting list continues to decrease and the risk profile of patients referred for Cardiac Surgery continues to increase. Despite this trend, the adult and pediatric units continue to provide outstanding results with morbidity and mortality statistics which are lower than any other University Affiliated Institution in North America.

These excellent clinical results have received acclaim from the Government of Ontario and our peers in the United States.

## **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.

Dr. Subodh Verma received the Young Investigator Award from the American College of Cardiology and the Melvin Marcus Young Investigator Award from the American Heart Association. Drs. Shafie Fazel and Nimesh Desai were finalists for the Lillehei Resident Prize won by Dr. Paul Fedak.

The residents participated in the four Coach House Seminars and the visits of two Professors, Dr. A. Marc Gillinov of the Cleveland Clinic and Professor Philippe Menasche from Paris.

## **Academic Achievements**

Each of the institutions has 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.

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

The Cardiovascular Surgical Division focused on clinical trials. Drs. Stephen Fremes and George Christakis received particular prominence because of their accomplishments in this area. The radial artery trial received funding to continue follow-up of patients operated on, at centres across the country. Dr. Nimesh Desai completed his PhD investigating new technologies for cardiac surgery. Dr. Gideon Cohen, working with Dr. George Christakis, received funding from the Heart and Stroke Foundation to assess the late outcomes of patients randomized to receive a stented or unstented aortic prosthesis. Dr. Bernard Goldman continues as the Editor of the Journal of Cardiac Surgery and published a comprehensive history of cardiac surgery in Canada.

## **St. Michael’s Hospital**

Dr. Lee Errett and his colleagues provided outstanding clinical outcomes in complex cardiac surgical procedures. The group continued recruiting patients for their randomized trial of off pump compared to on pump coronary bypass surgery. Under the leadership of Dr. Yves LeClerc, St. Michael’s Hospital has been the leading centre for off pump surgery in Canada. 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.

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### **Toronto General Hospital**

Dr. Tirone David continued his innovations in valvular heart surgery. Dr. Michael Borger continued his evaluation of a new surgical technique for ischemic mitral regurgitation. He received funding to continue his clinical investigations into techniques to prevent brain injury during cardiac surgery. Dr. Viv Rao continued as the principle investigator of the NIH-funded STICH trial evaluating ventricular remodeling surgery. Drs. Rao and Heather Ross continued to provide a unique service to the community with the left ventricular assist program. Dr. Rao also received funding for laboratory and clinical investigations into 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 received numerous awards as a pioneer in the new field of cell transplantation.

### **Hospital for Sick Children**

Dr. Glen Van Arsdell and his colleagues continue to be world leaders in the surgery for congenital heart disease in neonates. Their outcomes reflect the dedication of the surgeons to the care of these critically ill newborn babies. Drs. John Coles and Chris Caldarone have established laboratory and clinically relevant investigations. Dr. William Williams continues to direct 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

As mentioned in my report last year, the main issue that occupied our attention during this year was the external review of our residency program by Dr. Stephen Evans. Many changes were made in our residency program with input from our Interhospital

Co-Ordinating Committee in General Surgery, our Postgraduate Committee on Surgical Education as well as recommendations that came out of a series of weekly meetings with our residents. The issues that were foremost in our minds related to resident service versus education ratios, on-call responsibilities by senior residents, calls from the wards to our junior residents and from our Emergency Departments, particularly to our junior residents, and the social interchange between our residents and our staff members, as well as the methods of evaluation of our resident population. I am pleased to say that I believe that our efforts have begun to show results in that the resident population is much more stable. I say this despite the fact that resident attrition continued during the 2004-2005 year, when three of our PGY-1 residents left the program. In total, from July 2001 to June 2005, a total of 15 residents left our program. On the upside is the fact that 7 residents transferred into our program. I am also pleased to say that 13 new PGY-1 residents will enter our program beginning July 1, 2005. Included in this total are 2 IMG residents. In addition, we have taken an additional APIMG resident into our second year. This resident is from Azerbaijan and a second resident into our second PGY-2 year as a transfer from the Neurosurgery Program.

The following General Surgical residents were successful in completing the General Surgery Training Program for 2004-2005. They are: Mary-Anne Aarts, Marco Bertucci,

Sean Cleary, Jamie Cyriac, Andrew Dueck, Rebecca Gladdy, Lawrence Green, Neelesh Jain, Peter Mikhail, Guiseppi Papia, Jason Pennington, Mo Quadri, David Weizman, Dennis Wigle.

This represents a 100% success rate for the Royal College of Surgeons of Canada examinations in General Surgery, for our General Surgical Program.

## Promotions and New Faculty

During this academic year the following were promoted:

To Associate Professor - Drs. Fred Brennehan, Andy Smith, David Urbach

To Full Professor - Drs. John Bohnen and Mark Catral

We congratulate those who were promoted for their superior efforts that have now been recognized in this very concrete way.

Our new faculty included Dr. Claude Burul at the Toronto Western Hospital, Dr. May Lynn Quan at Sunnybrook and Women's College Health Science Centre, Dr. Carmine Simone at Toronto East General Hospital and Dr. Alice Wei at Toronto General Hospital.

## Research Funding

Our research funding has continued to increase year after year. In the academic year of 1999-2000 our research funding was close to 4 million dollars. In the 2003-2004 academic year the research funding totaled close to 6 million dollars and in this particular academic year our research funding totaled 8.35 million dollars. This latter figure was approximately 25% of the total research funding secured by the Department of Surgery at the University of Toronto.

## Faculty and Residents Grants

The following individuals received peer-reviewed grants during this academic year. They are Drs. John Bohnen, Mark Catral, Alexandra Easson, Annie Fecteau, Steve Gallinger, David Grant, Robert Gryfe, Peter Kim, Jarley Koo, Calvin Law, John Marshall, Andrea McCart, Helen MacRae, Ian McGilvray, Robin McLeod, Michael Reedjik, Richard Reznick, Ori Rotstein, Carol Swallow, David Urbach, Paul Wales and Frances Wright.

These individuals represent 50% of our general surgical faculty at our fully affiliated teaching hospitals. It is outstanding and impressive that this percentage of individuals in any one general surgical division, are holding peer-reviewed grants. In addition to this, the following residents in our surgical scientist program received peer-reviewed grants. These included, George Zogopoulos and Lynn Mikula supervised by Dr. Steve Gallinger, Anand Ghanekar supervised by Dr. David Grant and Rachel Khadaroo and Patrick Tawadros supervised by Dr. Ori Rotstein.

The above faculty and residents received peer-reviewed grants from the following institutions: OMHLTC, CIHR, PSI, OCRN, McLaughlin Centre for Molecular Medicine, NCI.NIH, RCPSC, CSCI, PAIRO, Connaught Fund, March of Dimes Birth Defect Foundation, NSABP.NCI, NCIC, Cancer Care Society, James Ewing Foundation, National Colorectal Campaign, Ontario Innovation Trust, Canada Foundation for Innovation, NCIC, CCS, SAGES, CIHI, CCO, CAGS, C.D.N. Breast Cancer Foundation, Deans Excellence Fund, SIS, Genome Canada.

## **Events**

The Faculty of Medicine Educational Achievement Event which was held in May of 2005 saw awards given to Dr. Jameel Ali to the following individuals. Dr. Ali was awarded the W.T. Aitkens Faculty Teaching Award for Course Development and Co-Ordination, Dr. Helen MacRae was awarded the Postgraduate Medical Education Award for Postgraduate Excellence and Development and Innovation and Dr. Richard Reznick the Daniel C. Tosteson Award for Leadership in Medical Education (from Harvard University)

The Gallie-Bateman Awards in May 2005 saw our General Surgical Faculty and Residents do well. Dr. Ian McGilvray was awarded the Bernard Langer Surgeon-Scientist Award, Dr. Steven Gallinger the Charles Tator Award, Dr. Peter Stotland the D.R. Wilson Award for Excellence in Resident Education and Dr. Michael Ko was awarded the First Prize in the Gallie Bateman Competition. Michael was supervised by Dr. Carol Swallow.

Our 45<sup>th</sup> Annual Update Course for General Surgeons and Residents was held on April 19-21<sup>st</sup>, 2005. Again, there was a record turnout of over 450 registrants. The guest lecturer was Dr. Mehran Anvari from McMaster University and once again, over 85% of our general surgical faculty presented at that major CME event. Our general surgical staff were extremely highly evaluated during the entire meeting. This past academic year, our update course was simulcast to the Tec de Monterrey in Monterrey, Mexico via an internet platform. Another 100 registrants were exposed to our Update Course and this again was highly evaluated. The Update in General Surgical Oncology was held in the Fall of 2004 over 100 registrants attended this meeting which again was highly evaluated.

The major academic event of the year for the general surgeons is our Annual Assembly of General Surgeons and Residents. This took place early in June of 2005. The E. Bruce Tovee Lecturer on that day was Dr. Barbara Bass from the University of Maryland. Awards for Best Papers and Posters were distributed to Drs. Michael Ko, Marianna Kapala and Lynn Mikula.

The General Surgical Division at the University of Toronto is outstanding in breadth and depth. We will continue to work in a collaborative way, striving for academic excellence in research and teaching and continuing to improve our residency training program.

**James T. Rutka** - Dan Family Chair



## Resident Achievements

### Royal College Examinations:

Fellows of the Royal College of Physicians and Surgeons of Canada (FRCSC): Drs. Eve Tsai, Andrew Nataraj, Babak Jahromi, Eddie Meirelles, Jay Riva-Cambrin, and Mohammed Bin-Mahfoodh.

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

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

**Eve Tsai:** won the Synthes Award, from the American Association of Neurological Surgeons (AANS);

**Cian O'Kelly:** received a 3-year Research Fellowship Award from the Heart and Stroke Foundation of Canada; and a Johnson and Johnson Medical Products-Surgeon-Scientist Fellowship 2004-2005

**Jay Riva-Cambrin:** received the AANS Pediatric Section Hydrocephalus Association Award

**Sarah Woodrow:** received the Cone Pevehouse Award from the AANS; and two grants for Medical Education Research from the Royal College of Physicians and Surgeons of Canada (2004-2005)

**Sheila Singh:** received this year's Royal College of Physicians and Surgeons of Canada Resident Research Award

**Todd Mainprize:** is supported by a fellowship from the Neurosurgery Research and Education Foundation of the AANS

**Karim Mukhida:** received the Margot Anderson Award, the Congress of Neurological Surgeons

**Charles Matouk:** was awarded a CIHR Postdoctoral Fellowship (5 years); and received a Heart and Stroke Foundation of Canada Fellowship (3 years)

### Resident Research Awards (University of Toronto):

**Gelareh Zadeh:** 2005 Alan Hudson Resident Teaching Award; William J. Horsey 2<sup>nd</sup> Prize Recipient

**Sheila Singh:** 2005 Warren Ho Humanitarian Scholarship Award; Morley Prize, 1<sup>st</sup> place award; successfully defended her PhD under mentorship of Dr. Peter Dirks; Stuart Alan Hoffman Prize, LMP; 17<sup>th</sup> Annual Andrew Sass-Kortsak Award, The Hospital for Sick Children

**Eve Tsai:** Dr. Leo Mahoney Resident Teaching Award, Department of Surgery, University of Toronto

**Jay Riva-Cambrin:** William J. Horsey 1<sup>st</sup> Prize Recipient

**Bradley Jacobs:** Morley prize, 2<sup>nd</sup> place award

**Ann Parr:** Successfully passed her transfer exam from Masters to PhD

## Faculty Achievements

### Awards

**Dr. Fred Gentili:** was appointed to the Editorial Board of the journal - Skull Base: An Interdisciplinary Approach; appointed to the Evaluating Committee of the Royal College of Physicians and Surgeons of Canada

**Dr. Michael Fehlings:** Received an Award of Merit in Clinical Research from the Heart and Stroke Foundation of Ontario; was appointed to the Board of Director of ONE Spine; was appointed to the Scientific Advisory Board, International Collaboration on Repair Discoveries (ICORD) for the Genomic Analysis of Injury and Neuroprotection (GAIN) project 2005-2009; was appointed to the Research Project Management Committee, North American Spine Society 2005; was appointed to the Medal Award in Surgery Subcommittee, Royal College of Physicians and Surgeons of Canada, 2005-2007; Chaired the first DePuy Spine Neurosurgery Residents Spine Education Summit; received a 5-year CIHR New Emerging Team Grant; received a 3-year AO Spine Center of Excellence Award from the AO International Foundation (with Eric Massicotte); was inducted into the American Academy of Neurological Surgery; received a grant from the McLaughlin Centre for Molecular Medicine; and was awarded a grant from the Christopher Reeve Paralysis Foundation (with Charles Tator)

**Dr. Moji Hodaie:** Won a Faculty Research Grant in the category of Dean's Fund competition for new staff

**Dr. Howard Ginsberg:** Appointed as Assistant Professor of Engineering in the Institute of Biomaterials and Biomedical Engineering, University of Toronto.

**Dr. Ab Guha:** Member of the CIHR Grant Review Panel; Appointed to the Scientific Advisory Board: Sontag Foundation, USA; Scientific Program Committee Member, Society of Neuro-oncology

**Dr. Jim Rutka:** received a 3-year NCIC grant (with Dr. Michael Taylor); received another 3-year NCIC grant; was appointed Annual Meeting Chairman, AANS for April 2006; received a 1 year grant from Brainchild; received a 5-year grant from the CIHR; was appointed Treasurer of the Academy of Neurological Surgery; won the Farber Award from the Tumor Section of the AANS/CNS.



**Dr. Charles Tator:** was introduced in the Legislative Assembly of Ontario to show his support of Bill 129 which would require all Ontario cyclists to wear helmets on public roads; awarded a grant from the Christopher Reeve Paralysis Foundation (with Dr. Michael Fehlings)

**Dr. Eric Massicotte:** Received a 3-year AO Spine Center of Excellence Award from the AO International Foundation (with Michael Fehlings)

**Dr. Michael Cusimano:** received a Grant from the Ontario Neurotrauma Foundation, 2005-2007

**Dr. Alexander Veloumian:** awarded the Dean's New Fund Staff Grant

**Dr. Peter Dirks:** won the George Armstrong-Peters Award in the Department of Surgery; received the 2005 Royal College Medal Award in Surgery; was invited to join the CIHR Centers of Excellence group on stem cells

**Dr. Andres Lozano:** Named Chair, Stereotactic & Functional Neurosurgery Committee, WFNS, 2005-2009; awarded a Canada Research Chair in Neurosciences (Tier1), University of Toronto, 2005; elected President of the World Society for Stereotactic and Functional Neurosurgery, 2005-2009; appointed to the Editorial Board of Neuromodulation, 2005; appointed as Ex-officio Board Liaison to Joint Section on Stereotactic and Functional Surgery, AANS, 2005-2007; appointed to the Scientific Issues Committee, Movement Disorder Society, 2005-2007; appointed to the International Executive Scientific Advisory Board, Michael J. Fox Foundation for Parkinson's Research, 2005-2006; appointed as Chair, Archives Committee, Movement Disorder Society 2005-2007; appointed as Chair, Congress Scientific Program Committee, Movement Disorder Society 2005-2006; inducted into the American Academy of Neurological Surgery; elected President of the American Society for Stereotactic and Functional Neurosurgery, 2004; appointed as Chairman of the Joint Section on Stereotactic and Functional Neurosurgery, CNS/AANS

**Dr. Michael Taylor:** received a Connaught New Staff Matching Grant; awarded the 2005 Schweizguth prize by the International Society for Pediatric Oncology; received a 3-year NCIC grant (with Dr. Jim Rutka); received a 2-year fellowship from the American Brain Tumor Association; received a Dean's Fund New Staff Grant; received the best individual investigator award for his presentation at the Tumor Satellite Symposium of the AANS/CNS; received best pediatric paper award at the Society for Neuro-oncology meeting; appointed to the Editorial Board of the Journal of Neuro-oncology

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

**Botterell** - Dr. Albert Rhoton, University of Florida College of Medicine

**Keith** - Dr. Richard Fessler, University of Chicago

**Hendrick** - Dr. Alain Pierre-Kahn, Hopital des Enfants Malades, Paris, France

**Lougheed** - Dr. John Girvin, King Faisal Specialist Hospital and Research Center, Jeddah, Saudi Arabia; and Dr. Frederick Boop, St. Jude's, The University of Tennessee, Memphis, Tennessee

**Marshall** - Dr. Robert Dempsey, University of Wisconsin in Madison

#### **City-Wide Rounds:**

Sunnybrook and Women's College Health Sciences Centre, Dr. Loch Macdonald, University of Chicago  
St. Michael's Hospital, Dr. Hunt Batjer, Northwestern University Medical School

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

Hands-on Course in Epilepsy Surgery, February 12<sup>th</sup>, 2005. Course instructors were Drs. Taufik Valiante and Jim Rutka

#### **Promotions**

Full Professor - Drs. Michael Cusimano, Karen Davis and Fred Gentili

Associate Professor - Dr. Peter Dirks

#### **Departures**

**Dr. Raj Midha:** Chairman of the Division of Neurosurgery at the University of Calgary

**Dr. Rick Moulton:** Chairman of the Division of Neurosurgery at the University of Ottawa and the Ottawa Civic Hospital

#### **In Memoriam**

Drs. William Lougheed and Harold Hoffman

Publications by neurosurgery faculty and residents: 149

Visiting Professorships by University of Toronto: 80

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



The Division of Orthopaedic Surgery, University of Toronto has had a year of continued growth. Substantial changes have occurred in a number of areas particularly relating to resident training and research activity.

Our division participated fully in the Ontario International Medical Graduate Program this past year and in addition participated in the Ministry of Health and Long Term Care (MOHLTC) Program for physician re-entry into specialty training. In addition we have also taken on the responsibility of the Practice Ready Program for orthopaedic surgery. All of this has been accomplished through the hard work of Douglas Hedden our Program Director who has greatly expanded the horizon for orthopaedic training at this University.

Research activities continue at all fully affiliated hospitals. With the compulsory research year having been reinstated two years prior the first group of residents to do the additional year of research will be going into the lab next year. An ample number of positions are available for these trainees and arrangements for institutional support for research as well as salary support for the trainees has been completed. We are anticipating that the increased research productivity that will come from this initiative will enhance the attractiveness of our program for future resident applicants.

Individual faculty efforts have resulted in increased peer reviewed publications compared to the previous year; our peer reviewed grant capture also improved compared to the previous year.

There were a number of visitors to the Division this year. The highlight was the 2004 Kennedy Visiting Professor, Dr. Bruce Sangeozan, Professor of Orthopaedic Surgery, University of Washington, Seattle, Washington. Dr. Sangeozan's clinical interest is in traumatology and foot and ankle surgery and he provided excellent teaching for the residents and the faculty over the three days of the Kennedy Visiting Professorship. The Basic Science Visiting Professor was Dr. Chris Evans from Harvard University. His primary interest is in gene therapy and he and the other faculty speakers provided a fascinating review of the current role of gene therapy in orthopaedic surgery and its possible future applications.

Dr. Guo-Jaw Wang, President, Kaohsiung Medical University in Taiwan visited the Division of Orthopaedic Surgery and presented his work on prevention and treatment of steroid induced osteonecrosis. Dr. Chad Price was the Salter Visiting Professor in October of 2004 and Dr. Kaye Wilkins was the Inaugural Rang Lecturer in June of 2005. This lectureship has been established through the Hospital for Sick Children in memory of our colleague Dr. Mercer Rang.

The Anica Bitenc Traveling Fellows visiting immediately after the Canadian Orthopaedic Association meeting and spent a week at the various affiliated hospitals.

The Canadian Orthopaedic Resident's Association meeting was held in Toronto November 5-6, 2004. This gave residents from across Canada an opportunity to interact with residents from the Toronto Program and as well allowed residents from other programs to interact with faculty members from this University. The faculty and residents at the University of Toronto would like to thank Markku Nousiainen and Christian Veillette for all their work in organizing this meeting.

Individual members of the faculty singled out for excellence by their peers included Jim Wright appointed Surgeon-in-Chief at the Hospital for Sick Children and awarded a Quality of Life Research Award by the Canadian Institutes of Health Research. Ben Alman was renewed as the Canadian Research Chair in Musculoskeletal Research; he was appointed Head of the Division of Orthopaedic Surgery at the Hospital for Sick Children and Vice-Chair of Research for the Department of Surgery. Doug Hedden was appointed the Head of the Specialty Committee for Orthopaedic Surgery for the Royal College of Physicians and Surgeons of Canada. Unni Narayanan was awarded the Marc Asher Award from POSNA (Paediatric Orthopaedic Society of North America) for the best scientific poster at their annual meeting.

Rod Davey was appointed Associate Director for Surgical Services, University Health Network and Medical Director of the Operating Rooms at the Toronto Western Hospital. Dr. Nizar Mahomed was given the Wightman-Berris Academy Teaching Award for 2005.

Dr. Stephen Lewis was chosen by the residents as the outstanding resident teacher for 2004-2005, receiving the Robert B. Salter Award for this accomplishment. Stephen was also recognized for his contribution to surgical skills by being designated for the University of Toronto Surgical Skills Distinguished Education Award for 2004-2005.

David Backstein won the Bruce Tovee Award for undergraduate education for 2004-2005.

Dr. Johnny Lau has been named a North American Traveling Fellow from the Canadian Orthopaedic Association for the year 2005.

The R.I. Harris Postgraduate Award was presented to Dr. Markku Nousiainen for the best graduating resident as voted by the faculty. Markku was also awarded the Sopman Humanitarian Award from the University Health Network in June 2005.

The two best resident presentations at Kennedy Day as judged by our Visiting Professor were given by Dr. Kurt Droll and Dr. Christian Veillette. Each received the Organon Sanofi-Synthelabo Research Award. The best presentation at the Basic Science Research Day was given by Dr. Daniel Yoo - he received the T.R. Sullivan Award for excellence in basic science research.

Four members of our faculty were promoted as of July 1, 2004: Dr. Ben Alman from the Hospital for Sick Children was promoted to full Professor; Dr. Tim Daniels from St. Michael's, Dr. Joel Finkelstein from Sunnybrook and Dr. Andrew Howard from the Hospital for Sick Children were all promoted to the Associate Professor level.

Bob Bell has been appointed the CEO of the University Health Network. This will obviously severely limit Bob's continued involvement with the Division of Orthopaedic Surgery and his research in orthopaedic oncology, but also recognizes his tremendous leadership skills. I am sure all of us in the Division are pleased for Bob and anticipate that he will have great success in his new position.

The Second Year Medical Student Initiative was held again this year. Once again it was over-subscribed and all students have expressed enthusiasm for the opportunity to learn more about orthopaedic surgery and more about this University.

We had one new faculty appointment, Dr. Sevan Hopyan, has taken up a staff position at the Hospital for Sick Children with a cross-appointment at the Mount Sinai Hospital. Sevan's primary interest is in orthopaedic oncology and orthopaedic oncology research. As you know Sevan is a graduate of our program having completed the Surgical-Scientist Program with a PhD and has done a clinical fellowship in paediatric oncology in Australia. Welcome back, Sevan.

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



This year we were pleased to appoint Dr. Melinda Musgrave to the Division of Plastic Surgery at St. Michael's Hospital. Dr. Musgrave is a graduate of our program and completed a clinical fellowship in Oxford, England before returning to St. Michael's. Dr. Musgrave's clinical interests are in the area of Post-mastectomy Breast Reconstruction and wound healing and her research interest is in the area of clinical outcomes.

This year's Hoyle Campell Visiting Professor was Dr. Steven Morris from Dalhousie University. We were pleased to accept the invitation of the Division of Anatomy to have Dr. Morris deliver the Harland Smith Lecture during his visit.

Recipients of divisional awards included Dr. Thomas Bell, who was awarded the Arnis Freiberg Teaching Award and Dr. Joel Fish who was awarded the WK.Lindsay Research Supervisor Award.

The resident research presentations are the highlight of the visiting professor's visit. Dr. Brent Howley was awarded the Mentor Prize for the best clinical paper. Dr. Kyle Wanzel was awarded the John Edward deToro Scholarship for the best research paper.

The Mentor Systems Graduate Scholarship in Plastic Surgery was awarded to Dr. Daniel Martin.

Other awards won during the year included the Harrison Award for the best resident teacher at Sunnybrook and Women's College to Dr. Allen Eckhouse. Dr. Karen Cross won the Young Investigator Award for her podium presentation at the American Wound Healing Society. Her talk was entitled "Determination of Burn Depth using Near Infrared Spectroscopy." Dr. Cross is completing her PhD in the Surgeon-Scientist Program.

Dr. Christopher Forrest served as Chairman of the Plastic Surgery Research Council this year and hosted the annual meeting of the Council in Toronto in May. The Research Council is regarded as the most prestigious of the academic plastic surgery societies. It was a particular honor for our Division to host this as it was the 50<sup>th</sup> Anniversary Meeting of the Plastic Surgery Research Council.

Dr. Peter Neligan served as Scientific Program Chair for the North American Skull Base Society annual meeting which was also held in Toronto in April.

The 31<sup>st</sup> Annual Aesthetic Surgery Symposium was held at the Convention Center on April 15<sup>th</sup> and 16<sup>th</sup>. This was preceded by the 4<sup>th</sup> Annual Breast Surgery Symposium on April 14<sup>th</sup>. Both meetings were well attended.

We had 3 residents taking the Royal College examinations this year. All three, Drs. Kyle Wanzel, Will Andrade and Stephane Braun, were successful.

Fundraising continues to be a priority and in September 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. In the coming year a campaign will be 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 Respirology 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. Our group is heavily involved in clinical trials in lung cancer, esophageal cancer and lung transplantation; with our division members being principle or co-principal investigators on a number of national and international multicentre trials.

## **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. Darling, Program Director. The F.G. Pearson Award for Best Resident/Fellow Teacher was awarded to Dr Karl Uy. The R.J. Ginsberg Award for Best Postgraduate Teacher was awarded to Dr. Michael Johnston. The inaugural G.E. Darling Award for Excellence in Undergraduate Teaching was awarded to none other than, Dr Gail Darling.

The Thoracic Surgical Research Laboratories continue to be very successful with grant capture and publications. 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 added significant strength and breadth by joining 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.

## **Recruitment, Promotion and Honours**

We have continued to build the Division with strong recruits and increasing cross division academic and service initiatives, between the three University hospital divisions, namely: Toronto General, St. Joseph's and Toronto East General Hospitals.

Dr. Marc de Perrot was appointed as Assistant Professor and attending Thoracic Surgeon at Toronto General Hospital, University Health Network. Dr. de Perrot trained in Thoracic Surgery and lung transplantation at University of Toronto, in addition to completing his MSc degree in the Thoracic Surgery laboratory. His academic area of interest is in T cell biology related to immune surveillance in cancer and in pulmonary hypertension.

Dr. Carmine Simone trained in General Surgery, Thoracic Surgery and Critical Care at the University of Toronto. He has been appointed as an attending Thoracic Surgeon and Co-Director of the Intensive Care Unit at Toronto East General Hospital. His academic interest is in surgical education and critical care.

Dr. Mingyao Liu has been appointed as Associate Dean, Division IV, School of Graduate Studies at the University of Toronto. This tremendous honour is well deserved based on Mingyao's significant and tireless contributions to graduate student education, in his previous position as Graduate Coordinator, at the Institute of Medical Sciences. It also provides a novel opportunity to enhance the relationships and interactions between hospital-based research institutes and the University.

Dr. Tom Waddell has been appointed as the R. Fraser Elliott Chair in Transplantation Research at University Health Network. This well deserved honour recognizes Tom's significant contributions and achievements in transplantation and regenerative medicine research. This is particularly noteworthy, being the first endowed chair to be held by a Thoracic surgeon, at the University of Toronto.

**Sender Herschorn** - Chair



## Highlights

**Dr. Tony Finelli** joined the staff at Princess Margaret Hospital as Assistant Professor in January. He completed a Minimally Invasive Surgery Fellowship at the Cleveland Clinic. He brings a great advance in laparoscopic surgery, especially in radical prostatectomy, to the division. Tony will also continue his academic career in the Masters of Clinical Epidemiology course at the University.

Tony received a Canadian Urological Association Scholarship award to support his clinical research startup endeavours in June.

**Dr. Kirk Lo** was appointed to the staff of Mount Sinai Hospital as Lecturer. He completed a fellowship in Male Infertility Research in Houston and was awarded a Canadian Urological Association Scholarship in June 2004 to support his project in stem cell research. He was awarded a CUA scholarship in June 2004 to start his research and this June was awarded another scholarship to continue his work.

**Dr. Sharon Sharir** joined the staff at Sunnybrook and Women's as Assistant Professor in July. Sharon completed a fellowship in Uro-Oncology and her main focus will be research in sex differences in pelvic cancer surgery.

**Drs. Walid Farhat** at the Hospital for Sick Children, **Robert Nam** at Sunnybrook and Women's, and **Kenneth Pace** at St. Michael's Hospital successfully passed their 3-year reviews.

**Dr. Tony Khoury** was reappointed site chief at SickKids for another 5-year term. His leadership for the past 10 years was successfully reviewed by Dr. John Brock of Vanderbilt University.

## Hospital for Sick Children

**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. This two-year award is part of a five-year NIH O'Brien Centre Grant in Urologic Research and was awarded to Children's Hospital in Boston. Dr. Bagli's was the only project on this O'Brien Centre Grant outside the Boston Children's Hospital.

**Dr. Walid Farhat** continued his work in tissue engineering and repopulation of acellular matrices for bladder reconstruction. Dr. Farhat was a guest speaker at the Lebanese Urology Congress, Beirut, Lebanon, in September where he spoke about Laparoscopy in Pediatric Urology and Lower Urinary tract Reconstruction in Preparation for Renal Transplantation. He was invited to Wayne State University, Detroit, Michigan, in January 2005 and spoke about Why Tissue Engineered Bladders are not yet Available for Clinical Use. Along with Lisa Cartwright (Urology Fellow), he won the 1<sup>st</sup> place poster prize at the Society for Government Urologists Kimbrough Seminar 2005 for research entitled: "Tissue engineered bladder neovascularization is enhanced with VEGF and quantifiable with dynamic contrast-enhanced MRI, in January.

Dr. Farhat continued his work on tissue regeneration and helped found the Regenerative Medicine Group at Sick Kids and hosted their first conference in May.

Dr. Farhat is the recipient of an award from the The Canadian Association of General Surgeons for the project entitled: Small Bowel Acellular Matrix as a Small Intestinal Substitute in a Porcine Model, along with P. Wales (PI) and J. Kim. He is the PI on a project funded by the Cleveland Clinic Foundation (Biomedical Research and Technology Transfer Program-part of Ohio's Third Frontier Initiative), entitled: Biologically Enhanced Fascia Lata Graft for Soft Tissue Repair, with K. Derwin as investigator.

Dr. Farhat successfully passed his 3-year review.

**Dr. Tony Khoury**, site chief at HSC, was reappointed for a 3<sup>rd</sup> 5-year term. He underwent a successful external review by Dr. John Brock, Chief of Pediatric Urology at Vanderbilt University in Nashville.

Dr. Khoury was an invited speaker to the Quebec Urological Association, Montreal, QC, in November where he spoke about Current Challenges and Advances in Achieving a Tissue Engineered Bladder and was a panelist in the session: Update on the Current Problems in Pediatric Urology. He was guest faculty at the Sao Paulo State Urological Society, Sao Paulo, Brazil, in May and gave talks on Impact of Prenatal Diagnostic Pediatric Urology, How to Avoid and Treat Complications in Hypospadias, In Utero Surgery, Re-do Pyeloplasty: Technical Pointers, Surgical Treatment for Neurogenic Bladder Dysfunction, and VUR: is endoscopic treatment suitable for all patients. He also continued his research in infection.

Dr. Khoury was asked to be a moderator at this year's annual Society for Pediatric Urology annual meeting in May, Session title "Urodynamics with infants with MMC: what should be the academic Standard? At the AUA Meeting in San Antonio he was invited to participate as a Point-Counterpoint Moderator at the Plenary Program for the session entitled "Sibling Screening for Vesicoureteral Reflux" on May 22, 2005.

Dr. Khoury was invited to speak at this year's annual Genitourinary Reconstructive Surgeons (GURS) meeting session on: Urethra from Top to Bottom and From Young to Old" Dr. Khoury's Topic "Proximal Hypospadias", held in conjunction with the AUA.

**Dr. Lori Burrows** continued as Director of the Centre for Infection and Biomaterials Research. She directs the centre that has masters, PhD candidates and postdoctoral fellows. Dr. Burrows continued her extensive and well-funded work in bacteria and biomaterials. She was invited to be a member of the Grants Review panels of Canadian Institutes of Health Research (Microbiology and Infectious Disease) and the National Institutes of Health (Infectious Disease and Microbiology-A Special Emphasis Panel).

Dr. Burrows addressed the Department of Microbiology, Molecular Biology and Biochemistry, University of Idaho, Moscow, Idaho and spoke about "*Pseudomonas* goes fishing: studies of type IV pili" in December. She also spoke at the Canadian Bacterial Diseases Network meeting in Banff in February. Dr. Burrows received a Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant Application for her project entitled: Pleotropic effects due to loss of single peptidoglycan remodelling enzymes. This is a 5-year project. She also received a CIHR Institute of Infection and Immunity Pilot Project Grants for New Investigators for her project entitled: Peptidoglycan synthesis and bacterial biofilm formation.

Dr. Burrows, along with Dr. Christine Bear as PI, received grants from the Canadian Cystic Fibrosis Foundation for the project entitled: Targeted small molecular therapeutics for cystic fibrosis, and for the project entitled: Targeted small molecules therapies for CF.

Dr. Burrows was awarded the Elsie Winifred Crann Memorial Trust Award for Medical Research in Cancer, Pulmonary, Kidney and Urinary Diseases, University of Toronto, in November. The award helps fund her research.

**Dr. Joao Pippi-Salle** started an educational project to produce an Interactive Multimedia CD-ROM for teaching operative pediatric urology. He has received funding from the Instructional Technology Courseware Development Fund from the University.

Dr. Pippi-Salle held a Workshop at the International Continence Society Meeting in Paris on Urological Management of Myelomeningocele from Birth to Adulthood in August. He spoke about Urological management of the newborn and the first years of life, Surgical management of the outlet, Role of Vesicostomy in the Management of Child Neurogenic Bladder, and The Pippi Salle Procedure. At the American Academy of Pediatrics, San Francisco, California, October, he was Moderator for Session entitled "Reconstruction". He also participated as faculty in the course at the American Urological Association (AUA) entitled: "Urological and Fecal Management of Myelomeningocele" held in San Antonio on May 24<sup>th</sup>, 2005. Dr. Pippi-Salle was Visiting Professor to the Department of Urology/ University of Laval, Quebec City, Quebec, in September. He gave presentations on Alternatives for Bladder Augmentation, Intersex, and Management of Antenatal Hydronephrosis. He also performed demonstrative surgery on 2 Hypospadias Patients. He was also Visiting Professor at C.H. Ibn. Rochd. Hopital d'Enfants, Casablanca, Morocco May 7 to 14<sup>th</sup>, 2005. He gave lectures entitled: 1. Management of Antenatal Hydronephrosis 2. Urethral duplication: how to manage? 3. What new in pediatric urology? Live Surgery: 1. Construction of continent diversion (Penn Pouch), 2. Re-do epispadias and bladder neck reconstruction 3- Omphaloplasty: a novel technique to construct a umbilicus 4. Construction of uretero-colonic pouch (Mansoura Pouch) and 5. Severe perineal hypospadias. Dr. Pippi-Salle participated in the 8<sup>th</sup> Annual Course on Management of Hypospadias, Istanbul, Turkey, Nov 25, 2004 - Dec 5, 2004. He presented Pre-op Evaluation of patients with Hypospadias: Relevant Points, Technical Details to Achieve Optimal Result in Hypospadias Repair, The Pippi Salle Procedure to Correct Urinary Incontinence; When and How to Perform it, and Video Course on Hypospadias Surgery which involved presenting 5 surgical cases. Dr. Pippi-Salle directed the very successful First Annual Symposium of Management of Vesicoureteral Reflux in October.

### **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 directed a Men's Health Update for Family Physicians at the Vaughan Estate in October.

Dr. Jarvi again organized the Annual Robson Research Day Resident and Fellow scientific presentation contest.

Dr. Jarvi delivered the Healthy Living Lecture, Toronto, Ontario, in May 3, on Andropause: "The Male Menopause". He also spoke to the Astra Fertility Group, Mississauga, Ontario, in May, about Update on Male Infertility, Evaluation and Treatment.

**Dr. Kirk Lo** began his practice focused on Male Infertility and basic infertility research in July. His project is to stem cells. He participated as faculty in a Stem Cell Workshop at the American Society of Reproductive Medicine in Philadelphia in October speaking about: Stem cell technology for male infertility research. Dr. Lo also received a scholarship (2004-2005) from the Canadian Urological Association Scholarship Fund (CUASF) for his research in "A novel model for the xenotransplantation of fresh and cryopreserved testicular tissues using immunodeficient NOD/SCID mice".

#### **Sunnybrook & Women's College Hsc**

**Dr. Lesley Carr** continued her work in Female Urology. She was an investigator in grant entitled: A randomized multicentre clinical trial to evaluate the efficacy of amitriptyline for the treatment of painful bladder syndrome (PBS) in newly diagnosed patients, with Dr. JC Nickel as PI. The grant is funded by the NIH. Dr. Carr also directed the weekly Urology School for the residents until January and continues to arrange the journal club sessions. Dr. Carr moderated Incontinence Podium Sessions at the AUA meeting in San Antonio in May and at the CUA meeting in Ottawa in June. She gave Gynecology Grand Rounds at St. Joseph's Hospital in Toronto on Diagnosis and Management of Interstitial Cystitis.

**Dr. Sender Herschorn** continued as University Division Chair and the Department Continuing Education Director.

Dr. Herschorn was Visiting Professor to the Division of Urology University of British Columbia, Vancouver, BC, in March. He was also guest speaker at the UBC Bladder Care Centre Symposium and opening and spoke about surgical treatment of stress urinary incontinence. He was also Visiting Professor to the Department of Urology, Queen's University and Kingston General Hospital. He lectured about female stress incontinence and demonstrated the trans-obturator approach for SUI. He was Chairman of the Section on Surgery for Male Urinary Incontinence and delivered the major address on the subject at the 3<sup>rd</sup> International Consultation on Urinary Incontinence in Monaco in July. Dr. Herschorn gave talks in Kelowna, BC, in September on overactive bladder and management of urinary incontinence. He demonstrated the obturator sling for female stress incontinence and perineal sling for male stress incontinence at North Bay General Hospital, North Bay, ON, in July. He also demonstrated the obturator procedure at Surrey Memorial Hospital, Surrey, BC, in December, and at Thunder Bay Regional Health Sciences Centre, Thunder Bay, ON, in November.

Dr. Herschorn lectured on: Evolution of the transobturator procedure in women at a Satellite symposium at the International Society of Urology Meeting, Honolulu, Hawaii, in October.

He participated in a workshop at The International Continence Society Meeting, Paris, France, August, Workshop on spinal cord injury neurogenic bladder 1. From the first day to the end of spinal shock. 2. Autonomic dysreflexia. He was also invited to speak at Current Problems in Urology in collaboration with University of Montreal, Mont Tremblant, QC, January, Workshop on Urinary Incontinence. He was invited lecturer to QUEST 2005 - Queen's University Annual Senior Urology Residents Review Course, Kingston, ON, February. Urodynamics. Dr. Herschorn was a moderator at the Canadian Urological Association Annual Meeting, Ottawa, ON, June, session on endourology/incontinence, at the International Society of Urology Meeting, Honolulu, Hawaii, October, session on superficial bladder cancer, and at the American Urological Association Annual Meeting, San Antonio, TX, in May, session on urodynamic testing. Dr. Herschorn was Director of the 12<sup>th</sup> Annual Division of Urology course Urology Update.

Dr. Laurence Klotz, site chief at S&W, continued his research in Uro-oncology and his many leadership appointments including Editor-in-chief of the Canadian Journal of Urology. Dr. Klotz was invited to address the European Association of Urology Annual Meeting Istanbul Turkey on the Role of frozen section in urologic oncology, in March. As Chair of the Canadian Urology Research Consortium he directed a Consortium Retreat, in February, in Collingwood, Ontario. Dr. Klotz initiated the World Uro Oncology Federation, (WUOF), an organization of 12 national and regional Uro Oncology Societies around the world. He was elected chairman of this organization at the founding meeting.

In Translational research, he has initiated several correlative science studies based on the PR-7 trial: a) an NCIC funded translational research study examining novel biomarkers as predictors for androgen independent progression in this well defined cohort, and b) an Ontario Cancer Research Network study comparing bone mineral density in the intermittent and continuous patient cohorts. In 2005, he was the clinical leader on a successful application to the Ontario Cancer Research Network for a \$5,000,000 grant to establish an Ontario Cancer Biomarker Network.

**Dr. Ron Kodama** continued as Program Director. Dr. Kodama also organized the second Annual Resident Basic Science Course, Delta Chelsea Hotel, Toronto, in February. He again organized the Surgical Skills Lab session on TURP and TURBT. He directed the annual Urology Fair 2005. He won the Division of Urology Postgraduate Education Award, for outstanding clinical teaching to residents. Dr. Kodama also won the Peters-Boyd Academy award for PBL Teaching. Dr. Kodama was elected to the Board of the GU Reconstructive Surgery Society.

Dr. Robert Nam continued his work in uro-oncology with research in the genetics of prostate cancer.



Dr. Nam was a guest speaker at the Mexican Urology Association Meeting in April 2005 and spoke about Hormonal Therapies for Prostate Cancer and Radical Prostatectomy. Dr. Nam also won the A.W. Bruce Undergraduate Teaching Award for excellence in undergraduate teaching.

Dr. Sharon Sharir joined the staff at Sunnbrook and Women's in July after completing a fellowship in Uro-oncology, including training in Minimally Invasive Surgery. Her area of research gender differences in major pelvic cancer surgery. Dr. Sharir received a grant entitled: A qualitative exploration of women's and men's experiences when undergoing radical cystectomy for bladder cancer. Her coinvestigators are Debbie Miller and Margaret I. Fitch. It is PBR Award from Sunnybrook and Women's.

**Dr. Vasundara Venkateswaran** continued her basic research in prostate cancer. This June she was awarded the Canadian Prostate Cancer Research Initiative - New Ideas grant as Principal investigator (Drs. Klotz, Fleshner and Sugar are Co-investigators)

The title of the grant is "Biomarker discovery in a transgenic mouse prostate cancer prevention model."

## **University Health Network**

### **Toronto General & Princess Margaret Hospitals**

**Dr. Neil Fleshner**, site chief at the UHN, continued his clinical and basic research in prostate cancer with major peer-reviewed grants.

Dr. Fleshner addressed the Canadian Prostate Cancer Network, Calgary, Alberta, in August, on Role of diet in prostate cancer prevention. He spoke at the Global Uro-oncology Forum, Wakiki, Hawaii, in September, on High risk prostate cancer. He also was invited to speak at the GlaxcoSmithKline Global Uro-oncology Think Tank, Barcelona, Spain, in November, on New methods for prostate cancer detection.

Dr. Fleshner's grants include 1. Dietary heterocyclic amines, polymorphisms in metabolism genes and risk of prostate cancer. Birkett, N., Fleshner N, Malone S, Morash C: DOD (CDMRP), 2. 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, 3. 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, and 4. A transgenic model of antioxidant prostate cancer prevention. Klotz, L, Fleshner N, Rao V, Sugar L, Venkateswaran V: National Cancer Institute of Canada. Dr. Fleshner co-chaired the Current Problems in Urology course in Mont Tremblant, QC in January. He also co-chaired the CPC-BIONET annual meeting in Vancouver in May. He was Visiting professor in Halifax in June and spoke about the "Role of diet in prostate cancer".

**Dr. Michael Jewett** continued his clinical and research work in Uro-Oncology. Dr. Jewett was elected President of the Canadian Urologic Association for a 1-year term. Dr. Jewett won the Division of Urology Postgraduate Teaching Award for outstanding surgical teaching to residents, June.

**Dr. Michael Robinette** continued as the major individual contributing to the Multi-organ transplant program.

**Dr. John Trachtenberg** continued his active research into novel therapies for prostate cancer. He was Visiting Professor in the Division of Urology at the University of Washington, Seattle, Washington, in March and spoke about Current treatments for advanced prostate cancer. Dr. Trachtenberg addressed Negma Lerads, in New York, New York, in May and spoke about Clinical results of a Phase I/II study on the efficacy of photodynamic therapy in the treatment of recurrent prostate cancer following radiation therapy. He presented at Challenging Cases in Prostate Cancer Meeting, Las Vegas, Nevada, in June on New Treatments for Prostate Cancer. He also gave a talk at the Princess Margaret Hospital Foundation, Toronto, Ontario, in June and the topic was: An Ounce of Prevention is Worth a Pound of Cure: The Role of Prevention and Screening in the Fight Against Cancer. Dr. Trachtenberg was the CUA Scholarship Foundation guest speaker at the Canadian Urological Association, Ottawa, Ontario, in June and spoke about "Prostate Cancer, Where Are We Headed?" Dr. Trachtenberg's new research grants include Photodynamic Therapy - Basic Science Studies, with Zheng H, Hetzel FW, Chen Q, Trachtenberg J, Wilson BC, from the National Institutes of Health. He also has grant from the Prostate Cancer Research Foundation of Canada entitled: The Role of Androgen Ablation in the conditioning of Prostate Cancer to Photodynamic and Other Oxidative Stress-based Therapies, with Wilson BC, Pinthus J, Trachtenberg J. He is working on Effects of photodynamic therapy on urinary symptoms due to benign prostatic hyperplasia, as the PI and is funded by QLT Inc. Dr. Trachtenberg co-chaired the 13<sup>th</sup> Annual Issues and Controversies in Prostate Cancer with Drs. Larry Goldenberg, UBC, and Ian Thompson, University of Texas at San Antonio in Jamaica in March.

**Dr. Tony Finelli** joined the staff at PMH/UHN after completing a fellowship in Minimally Invasive Surgery at the Cleveland Clinic Foundation in Cleveland, OH. He received a Canadian Urological Association Scholarship award to support his clinical research startup endeavours in June. Dr. Finelli addressed the Sociedad Colombiana de Urologia, Cartagena, Colombia, Aug 2004, on Laparoscopic radical prostatectomy. He also performed live laparoscopic radical prostatectomy. He was invited to the Instituto Medico La Floresta, Caracas, Venezuela, in November and spoke about Laparoscopic partial nephrectomy: Technical nuances. He also performed a live laparoscopic partial nephrectomy. Dr. Finelli was invited to the 1<sup>st</sup> Ege University Laparoscopic Urology Course, Izmir, Turkey, in April. He spoke about Laparoscopic radical prostatectomy and as Visiting Professor performed live laparoscopic radical prostatectomy. He

also addressed the Society of Urologic Surgeons of Ontario, in Toronto in May, on Laparoscopic radical prostatectomy. Dr. Finelli was Moderator for a podium session on Laparoscopy at the Canadian Urological Association Meeting in Ottawa in June.

### **University Health Network**

#### **Toronto Western Hospital**

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

Dr. Hassouna moderated a session on Neuromodulation at the combined Society for Urodynamics and Female Urology/International Society for Pelvic Neuromodulation (SUFU/ISPiN) in Orlando in February.

**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 spoke about BPH at the Men's Health Update for Family Physicians- Murray Koffler Urologic Wellness Centre, in October at the Vaughan Estate. Dr. Radomski also spoke at Primary Care Today- University of Toronto Conference, Toronto, in May, on BPH: An update in treatment and PSA screening. Dr. Radomski is an investigator in the following peer-reviewed grants: The role of self-care in risk factor management among incontinent older woman: Development of an evidence based self-care risk factor modification tool for urinary incontinence with Holroyd-Leduc JM, Straus S, Radomski SB, Davis D, Lingard L: Dean's Fund University of Toronto; and Sexual Dysfunction and Adaptation in Couples Affected by prostate Cancer Surgery: Steps Towards a Biopsychosocial Model of Treatment, with Mathew, Andrew, Ritvo P, Irvine J, Trachtenberg J, Jewett M, Fleshner N, Radomski S, Tsihlias J, Shaw B, Katz J, Weitzman E: Canadian Institutes of Health Research (CIHR).

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

**Dr. John Honey**, site chief at St. Michael's, continued his work as Director of Endourology. Dr. Honey was Invited Faculty at the 22nd World Congress on Endourology and SWL, 20th Basic Research Symposium, Mumbai, India, Nov 2004. His Podium Presentation was titled "The effect of shock rate on the success of shock wave lithotripsy" and at the same congress he was moderator of the Video Session "Percutaneous Nephrolithotripsy". Dr. Honey was also Invited Faculty, Workshop on Ureteroscopy and Holmium Laser Lithotripsy at Current Problems in Urology, Mt. Tremblant, Quebec, in February.

**Dr. Kenneth Pace** continued his work in clinical epidemiology and Stone disease and Minimally Invasive Surgery. Dr. Pace addressed the Annual meeting of the Urologic Society for Transplantation and Vascular Surgery, San Antonio, Texas, in May. His talk was entitled: Prospective comparison of health-related quality of life following laparoscopic and open donor nephrectomy. He also spoke at the Annual meeting of the Acoustical Society of America, Vancouver, in May. His title was: Shock wave lithotripsy at 60 or 120 shocks per minute: a randomized, double-blinded trial. The University of Toronto Dean's Fund New Faculty Award was given to Dr. Pace as PI. The project is entitled: The Impact of pneumoperitoneum on renal physiology: a rat model. His co-investigators are Stewart RJ, Honey RJD, Hare G, and Blew B. Dr. Pace also received a grant from Physician Services Incorporated entitled: The impact of laparoscopic surgery on renal physiology. His co-investigators are Stewart RJ, Honey RJD, Hare G, and Blew B. Dr. Pace was elected Chair of the IT committee for the Canadian Urological Association at the Annual Meeting in June.

**Dr. Robert Stewart** continued as the principal urologist in the kidney transplantation program. He also continued his basic research into angiogenesis in prostate cancer. Dr. Stewart took on the role of being in charge of the Urology Residents weekly seminar in January. He also became director of undergraduate surgery education at SMH. He enrolled in the Master of Education Program at OISE/UT.

### **Academic Events & Divisional Awards**

The **Annual Charles J. Robson Research Day** was held on April 1. The Visiting Professor was Dr. Michael Marberger, Chairman of the Division of Urology, University of Vienna, in Vienna Austria. There were 25 research presentations from the division and the winners in the various categories were as follows:

Resident basic science 1<sup>st</sup> prize: **Ethan Grober**

Resident clinical 1<sup>st</sup> prize: **Michael Kogon**

Resident basic science 2<sup>nd</sup> prize: **Girish Kulkarni**

Resident clinical 2<sup>nd</sup> prize: **Timothy Davies**

Fellow basic science 1<sup>st</sup> prize: **Ahmed Haddad**

Fellow basic science 2<sup>nd</sup> prize: **Jehonatan Pinthus**

Fellow clinical 1<sup>st</sup> prize: **Alessandro Volpe**

Fellow clinical 2<sup>nd</sup> prize: **Luke Fazio**

## **Highlights Undergraduate and Postgraduate Education**

Dr. Kodama again organized the Annual Basic Science Course for Urology Residents. All Canadian PGY1-3 Urology residents attended the event, Feb 27-29.

The annual MCCQE evening review lecture series in Urology was held in March and co-coordinated by Sender Herschorn with participation by Drs. John Honey, Michael Jewett, Sid Radomski, John Trachtenberg, Keith Jarvi, and Walid Farhat. The lectures and notes are updated yearly.

## **Visiting Professors**

There were a total of 12 visiting speakers and professors in the division in 2004-05.

Dr. Michael Marberger from the University of Vienna was the Robson Day Visiting Professor. Other speakers at the Update were Dr. Gerald Chodak from the University of Chicago, Dr. Steven Docimo, Director of Pediatric Urology, University of Pittsburgh, Dr. Roger Dmochowski from Vanderbilt University, Dr. Philip Hanno, from the University of Pennsylvania, Mr. Freddie Hamdy, Professor and Chair of Urology, University of Sheffield, UK, Dr. Peter Carrol, University of California San Francisco, Dr. Jack McAninch, - Vincent Colapinto Memorial Lecturer, from the University of California San Francisco, Dr. James. Lingeman, MD, Indiana University School of Medicine, and Dr. Joel Teichman, University of British Columbia. Dr. Gerald Andriole from Washington University in St. Louis was a Visiting Professor. Dr. Jack Elder from Case Western Reserve addressed the VUR symposium in October.

## **Continuing Professional Development**

The 12<sup>th</sup> **Annual Division of Urology** course Urology Update was held at the Westin Harbour Castle. Course director was Sender Herschorn with Laurence Klotz co-director. The planning committee included John Honey, Sid Radomski, John Honey, Tony Khoury, Lesley Carr, Kenneth Pace, and Ron Kodama.

Other participants were Darius Bagli, Walid Farhat, Neil E. Fleshner, Magdy Hassouna, Michael Jewett, Robert Nam, Kenneth Pace, Joao Pippi-Salle, Sharon Sharir, and John Trachtenberg.

Dr. John Trachtenberg co-chaired the 13<sup>th</sup> Annual Issues and Controversies in Prostate Cancer in Jamaica, WI. It was again highly successful.

Dr. Keith Jarvi convened a program for Family Physicians on Men Health, in conjunction with the Murray Koffler Men's Health Centre, in October.

**Thomas Lindsay** – Chair



## **Introduction**

This past year has been one of continued uncertainty with respect to the reorganization of Vascular Surgery services in the University of Toronto teaching hospitals. During the year, tremendous efforts have been made to achieve new hospital funding for two centers of excellence, to provide vascular surgical care at St. Michael's and University Health Network. The framework for an alternate funding agreement has been developed. At present, offers are being finalized and if accepted, the division will be regionalized. This will involve the transfer of Vascular Surgery from the Toronto East General Hospital and St Joseph's Health Center to St Michael's and Toronto General Hospitals respectively. This process initiated by the Division in conjunction with the Ministry of Health, will consolidate vascular surgery and create a critical mass of surgeons to deliver patient care, education and research. Access to minimally invasive catheter and stent-based technology will be integral parts of these new centers. Dr. Szalay left St Joseph's Health Center for Hamilton and Dr. George Oreopoulos has been appointed to that position.

## **Administration**

Drs. Thomas Lindsay and Wayne Tanner were appointed to the Vascular Services GTA Review Steering Committee headed by Mr. Jeff Lozon. Following approval of a reorganization plan an implementation committee headed by Dr. Robert Howard of St. Michael's was struck with Drs. Tanner and Lindsay designated as surgeons representatives. In addition both are involved in negotiating an AFP for the University of Toronto Division Vascular Surgery. These committees were charged with redesigning and coordinating Vascular Surgery Care in the GTA. Dr. Lindsay was appointed as the Deputy Chair of the Vascular Surgery Examination Board at the Royal College of Physicians and Surgeons starting September 2004. Dr. Lindsay was appointed as the President Elect of the Canadian Society for Vascular Surgery at the October 2004 meeting.

Dr. K.W. Johnston continues as R. Fraser Elliott Chair in Vascular Surgery and Editor-in-Chief of VascularWeb, a consortium of eleven the North American Vascular Societies and editor of a new vascular newspaper called the Vascular Specialist. Dr. Johnston was appointed Vice-President of the Society for Vascular Surgery at the June 2005 meeting, a position that will lead to the Presidency of that organization in June 2007. He will continue as the vice-chair of the Distinguished Fellows Council of the Society for Vascular Surgery and a member of the Board.

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 elected to be the Provincial Representative for the Academic Health Science Center Alternative Funding Plan Governance Organizations in Ontario, and will be a representative on the AHSC AFP Task Force. Dr. Tanner continues as the Head of the Section of Vascular Surgery at the Ontario Medical Association. He was reappointed to the Physician Services Committee, which is the interface between the OMA and the MOHLTC for ongoing contractual issues. This follows upon the extensive work he has done for the profession at the OMA in negotiating a new collective agreement for the physicians of Ontario.

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. He also served as President of the Medical Staff Association of St. Joseph's Health Centre.

## **Graduates**

Drs. George Oreopoulos and Ali Jawas successfully completed fellowship certification by the Royal College of Physicians and Surgeons in September 2004. Dr Oreopoulos was appointed to the surgical staff at St. Joseph's Health Center.

## **Research**

Dr. Wayne Johnston continues with his 4-year CIHR grant to support his basic research programs with Professors Richard Cobbold and Matadial Ojha (Biomedical Engineering) in Doppler ultrasound; hemodynamics studies continues as his major research endeavor.

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.

Dr. Lindsay has established a risk factor assessment and intervention program with a database (SAVR, Systematic Assessment of Vascular Risk) for patients with atherosclerosis. It aims to document the current state of risk reduction therapy and develop strategies to improve the care of patients with vascular disease. Dr. Lindsay continues to be funded by Physicians Services Incorporated, for his research into mechanisms of organ injury following ruptured abdominal aortic aneurysms.

Dr. Alan Lossing and David Courtman received \$65,000 from Heart and Stroke for AAA research examining the AAA matrix and its function.

## **Clinical Programs**

Dr. Oreopoulos has developed a comprehensive vascular access program for assessment and triage of dialysis patients requiring surgical creation of dialysis access. This has resulted in very high levels of fistula creation and usage at St. Joseph's Health Center.

## Awards

Dr. Rubin was named a Distinguished Fellow of the Society for Vascular Surgery at the June 2005 meeting.

## External Visits and Visitors

External visits by members of the Department included Dr. Rubin who was a Visiting Professor at the Karolinska Institutet in Sweden. Drs. Johnston, Kucey and Lindsay, presented at the Winnipeg Vascular Surgery course in April 2005. Drs. Johnston, Lindsay, Oreopoulos and Wooster presented on the applications of Duplex ultrasound at the VITO meeting in Toronto in May 2005. Dr. Johnston was invited to give the Luc Deschenes Lectureship at Laval University and was also invited to McGill University, the South Florida Society for Vascular Surgery and the Atlantic Vascular Society. Dr. Lindsay was an invited speaker at the Pacific Northwest Vascular Society and the Gulf Coast Vascular Society.

# DIVISION OF ANATOMY

**Michael J. Wiley** - Chair



This past year, members of the Division provided one or more courses in Anatomy to over 1600 students, from 11 programs across six Faculties of the University. We were successful in obtaining new funding to help in developing the laboratory components in several of these courses. Awards obtained from the Academic Incentives Fund in collaboration with the Faculties of Dentistry and Physical and Health Education, will allow the Division to enrich the gross anatomy laboratories offered to students in these programs and to create more opportunities for graduate students to gain teaching experience. An award from the Provost's Information Technology Development Fund with matching funds from the Faculty of Medicine, will underwrite the development of a 'virtual microscope' to be used in teaching Histology to the medical class. Utilizing compression and streaming software, high resolution annotated scans of microscope sections, can be delivered over the internet, allowing a student's computer to emulate a microscope. This approach will eliminate the classic histology 'microscope lab' from the medical timetable and will provide for a more student-centred approach to learning Histology. Using the highest quality images, the 'virtual microscope' lab units will offer students the flexibility to schedule their own time for laboratory study, together with self- assessment tests and unlimited opportunity for review.

## Honours and Awards

Dr. Ian Taylor received the E. Mary Hollington Award for teaching with distinction in the undergraduate preclinical curriculum and Anne Agur received her second the W.T. Aikens Faculty Teaching Award for individual teaching performance. The Division received a special presentation from the Sunnybrook-Osler Centre for Prehospital care for its outstanding contribution and commitment to paramedic education. Dr. Cindi Morshead has been appointed to the Editorial Board of Current Stem Research and Therapy and Anne Agur has been appointed an Associate Editor of Clinical Anatomy. The interactive website developed by Dr. Pat Stewart entitled *Functional Neuroanatomy*, was accepted "with distinction" by the Health Education Assets Library (HEAL). HEAL is a repository of peer reviewed digital educational media in medical science and is a part of the USA National Digital Science Library.

## Personnel

Dr. Mina Kim successfully defended her Master's thesis under the supervision of Dr. Cindi Morshead and two new postdoctoral fellows, Drs. Anna Erlandson and Tasneem Zahir have recently joined Cindi's lab.

Professor Mike Wiley has been re-appointed for a second term as Division Chair.

Dr. Bernie Liebgott has officially retired from the University as of July 1, 2005 after 40 years as a Professor of Anatomy. He has graciously agreed to return post-retirement to help with our undergraduate teaching. There is a search currently underway for a new recruit to fill the tenure stream position opened by Bernie's retirement.

**Charles H. Tator** - President & Chairman



The Surgical Alumni Association creates programs and opportunities to reach its mandate, leading by example to encourage the participation of surgical alumni, faculty and friends. The mission statement of the Surgical Alumni Association is 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.”

Looking back at 2004-2005, the programs we have put in place over the years have led to some significant milestones. First, due to the overwhelming generosity and acceptance of the concept of annual giving by alumni and current faculty (and bolstered by various government and university matching programs over the years) this year the Surgical Alumni Fund endowment has been built up to over \$1 million! While this is clearly a time to pause and celebrate a source of funds which will support our surgeon scientist trainees in perpetuity, it is good to remember that this endowment will conservatively yield about \$45,000 annually, approximately equivalent to the salary of only one of our twenty-odd trainees each year. And so we continue to encourage every former resident, fellow and faculty member to support the Surgical Alumni Fund with a gift of \$1,000 each year, or any amount you are comfortable with. Again, it is the Association’s mandate to build this fund to be able to expand the unique and imperative Surgeon Scientist Program.

In 2004-2005, our alumni were also key to the success of another large-scale project. Led by Dr. Sender Herschorn, Chair, Division of Urology, the division’s \$2 million fundraising campaign milestone for the Martin Barkin Chair in Urological Research was reached. This campaign was particularly poignant as the honoree, Dr. Martin Barkin, is an alumnus of the Faculty of Medicine and the Gallie course in our department. The incumbent and first Barkin Chair holder, Dr. Sender Herschorn, is also another alumnus of our Department of Surgery, completing his residency here thirty years ago as well as a postgraduate fellowship. Dr. Herschorn describes Dr. Barkin as “a role model of a brilliant academic clinician and surgeon, who treated residents as junior colleagues rather than employees, an exception to the norm back then.”

We also need to thank and commend the chairman of our department, Dr. Richard Reznick, and Dr. Martin McKneally (editor) and their staff for designing and producing the high-quality and relevant newsletter, The Surgical Spotlight, which goes out four times a year to more than 2300 of our alumni and keeping them ‘in the fold’. The more we communicate with alumni, the more they will continue to feel engaged with the department and support our activities.

Lastly, our enduring gratitude goes out to all faculty members and alumni who support the activities of the Surgical Alumni Association.

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



Surgical Oncology is expanding and maturing across the University of Toronto. Activity is intensifying at Sunnybrook and Women’s College Health Science Centre, the University Avenue hospitals and St. Michael’s Hospital. This evolution at the University is occurring at a time when the focus on co-ordinated, multidisciplinary cancer management in Ontario, is increasing. New cancer centres, such as the ones recently announced at Southlake Regional Health Centre and St. Catherines, are emblematic of this progress.

## **Clinical & Administrative Impact**

University of Toronto programs in urologic, head & neck, thoracic, musculoskeletal, gynecologic and general surgical oncology, play increasingly important roles in managing high intensity, complex cancer cases from across Ontario. For example, the Musculoskeletal Oncology program has formally expanded its catchment to the entire country. Dr. Jay Wunder has taken over the leadership of this program as founder Dr. Bob Bell, has assumed the leadership of the University Health Network.

Surgical Oncology continues to attract significant focus at the Ministry of Health, Cancer Care Ontario and hospital level. Dr. Jonathan Irish has led initiatives focusing on surgical wait times and volume-complexity funding, which promise to increasingly stabilize resources for cancer surgery in Toronto and across Ontario. David Urbach has been appointed Research Director for Cancer Care Ontario’s Surgical Oncology program. This important role will help to evaluate the impact of various efforts, to standardize and improve the quality of cancer care throughout the province. University of Toronto’s surgical oncology faculty lead many of these initiatives.

## **Teaching & Research Achievements**

Robust fellowship programs continue to produce new graduates in Surgical Oncology. The General Surgical Oncology Fellowship under the stewardship of Dr. Carol Swallow, has become the third largest such program in North America, second only to the Memorial Sloan-Kettering Cancer Centre and MD Anderson Cancer Centre. Eighty percent of the graduates from this program have gone on to populate the new cancer centres in Ontario. Similarly, at the University, all surgical oncology divisions continue to recruit and expand. For example, Drs. Sharon Sharir and Tony Finelli have joined the ranks of Uro-oncologists at U of T.

University of Toronto Faculty are involved in a broad range of research ranging from basic science to clinical epidemiology and knowledge transfer. Dr. Sherif Hanna has spearheaded the development of a Chair in Surgical Oncology Knowledge Translation, at Sunnybrook & Women’s College Health Sciences Centre.

**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.

Five 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 have 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. Details of the program can be obtained from the following website: [www.mainport.org/default.asp#](http://www.mainport.org/default.asp#). Each year a random sample of 3% of fellows will be required to validate their self-reports of participation in educational activities.

The Documentation required for the different types of CPD activities are in the following table.

Type of activity	Documentation required
<b>Section 1:</b> Accredited group learning activities Grand rounds, journal clubs, etc.	Planning committee responsible will provide upon request written confirmation of attendance
Meetings, conferences, workshops, etc. (inside or outside of Canada)	Registration receipt or program schedule (dates and hours required)
Small group learning sessions	Designated responsible fellow to provide written confirmation, upon request, of attendance
<b>Section 2:</b> Group learning and self-directed CPD	No documentation required
<b>Section 3:</b> Accredited self-assessment programs	Written confirmation of completion by sponsor
<b>Section 4:</b> Structured person learning projects Traineeships	Physician must document the item, the stimulus, references, outcome of learning (WebDiary fulfills requirements)
Preceptored courses, fellowships, Masters or PhD programs	Documentation showing evidence of course completion by sponsoring university or college
<b>Section 5:</b> Practice review and appraisal	Audit proposal forms; date of completion; outcomes for practice; description of participation of physician in developing the audit; summary of findings
<b>Section 6:</b> Educational development, teaching, and research	List of relevant activities

The RCPSC website home page contains a link to “Maintenance of Certification” page that contains a link to Guidelines for CPD Providers. This contains information on accrediting programs, application forms, and contact information for accredited providers.



The next cycle will begin in 2006 until 2010. It is evident that changes should be considered to the framework of educational (CPD) options. Academic physicians spend countless hours on publications, preparing presentations or teaching sessions, developing examination questions, research, and setting standards for the profession such as clinical practice guideline development. Yet all of this activity, despite the total number of hours, counts for a maximum of 20 credits (hours) per year and 100 credits over 5 years. Since this activity is educational no limit should apply.

Most divisions held courses this year and there were 17 that were run by the University Continuing Education Department, a decrease of 2 from last year. The list of the courses is in the following Table. Of note is General Surgery that held its 44<sup>th</sup> annual update. The Aesthetic Plastic Surgery Course has been given for 35 years. The Thoracic Surgery course was given for the 31<sup>st</sup> year. The Vascular course has been given for 23 years and the Upper Extremity course for 20 years. The Urology Update was 12 years old and continued to be one of the largest urology CE event in Canada. Last 103 Spanish urologists attended the course

**Table: CE events**

<b>Course Title</b>	<b>Enrollment</b>	<b>Hours</b>
Surgical Oncology	121	6
Inherited Colorectal Cancer	107	13.5
Surgical Spine Techniques	n/a	8.5
Intraoperative Monitoring in Neurosurgery		37
Kennedy Visiting Professor	26	10.5
Urology Update 2004	346	14.5
Breast Surgery Symposium	117	7
Upper Extremity Update	182	6.5
Update in General Surgery 2005	433	17.5
Update in General Surgery (Mexico Site)	60	14
Thoracic Surgery 2005	94	14.5
Vascular Imagin Toronto 2005	52	7.5
Vascular Self-Evaluation Program	n/a	20
Vascular Self-Evaluation Program	n/a	60
Aesthetic Plastic Surgery	158	12.5
International Surgery	n/a	10.5
<b>Total</b>	1468	240.5

There were more than 1450 participants, a decrease of 350 from last year. There was a total of 240 hours of courses given, an increase of 5 hours over last year.

The department continues to be a large provider of CPD courses due to the skill and motivation of its members. This should increase as CPD assumes greater importance in society. Furthermore, excellence in CE has a positive impact on an individual's annual performance review and in academic promotion.

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



## ***Heads of Divisions***

**Dr. G. Van Arsdell - Cardiac Surgery**

**Dr. J. Langer - General Surgery**

**Dr. J. Drake - Neurosurgery**

**Dr. B. Alman - Orthopaedic Surgery**

**Dr. C. Forrest - Plastic Surgery**

**Dr. A. Khoury - Urology**

This is my first report as Surgeon-In-Chief, having begun my term on January 1, 2005. I would like to thank the surgeons, other chiefs and the administration at Hospital for Sick Children for assisting my transition.

Several important events are ongoing at the Hospital. The Hospital is consulting internally and externally to develop strategic direction for the next 2 to 5 years. The Ontario Child Health Network and Sick Kids are leading a province-wide initiative, to address surgical waiting times for children. Finally, the Hospital is preparing for renegotiation of the AFP, which for the Department of Surgery, is entering its 12<sup>th</sup> year. Other events include a team lead by Dr. Jack Langer, separating conjoined twins. Dr. Paul Wales has developed a multidisciplinary Gastrointestinal Failure Team (GIFT). Dr. Peter Kim developed a Maternal Fetal Health Care Network for the province of Ontario.

## **New Staff**

Dr. Sevan Hopyan joined the Division of Orthopaedics in January 2005. Sevan returns from a fellowship at the Royal Children's Hospital Melbourne, Australia with a clinical interest in surgical oncology and an appointment in Developmental Biology, in the Research Institute.

Dr. Michael Taylor joined the Division of Neurosurgery in July 2004. Michael returns from a fellowship at St. Jude's Research Hospital in Tennessee, with a clinical interest in brain tumors and an appointment in Developmental Biology in the Research Institute.



## **Appointments & Promotions**

Dr. William Cole stepped down as Division Head of Orthopaedics after 12 years of building a world-class division of research and clinical excellence.

In addition to his appointment as the new Head of the Division of Orthopaedics, Dr. Benjamin Alman was re-appointed as a Canadian Research Chair, and also appointed as Vice Chair for Research, Department of Surgery, University of Toronto.

Dr. Douglas Hedden, in addition to his role as Program Director, Orthopaedic Surgery, University of Toronto, was appointed Chair of the Specialty Committee for Orthopaedics for the Royal College of Physicians and Surgeons of Canada.

Dr. Peter Dirks was promoted to Associate Professor, received the George Armstrong Peters Award from the University of Toronto and was awarded the Royal College Medal of Surgery.

After an exemplary review by Dr. John Brock, Surgeon-in-Chief, Vanderbilt Children's Hospital, Dr. Antoine Khoury was re-appointed to a third 5-year term as Head of the Division of Urology.

## **Education**

The Hospital continues an active educational program training 88 fellows and 140 residents, originating from 27 countries world-wide.

## **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**

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**Caldarone C:** Conventional and sutureless techniques for management of the pulmonary veins: Evolution of indications from post-repair pulmonary vein stenosis to primary pulmonary vein anomalies. *Journal of Thoracic and Cardiovascular Surgery*: September 2004:

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

**Caldarone C:** Congenital Heart Surgeon's Society and the European Congenital Heart Surgeons Association, Montreal, Quebec, October 2004. Aortic valve repair with cusp augmentation.

**Caldarone C:** Contemporary Questions in Congenital Heart Disease, Toronto, Ontario, May 2005. Hybrid procedures: should we be building combined OR/catheter laboratories?

**Van Arsdell GS:** ACC International Symposium on CHD in the Adult, Toronto, May 2005. Chaired Session: Novel perspective in Congenital Heart Disease.

**Van Arsdell GS:** Contemporary Questions in Congenital Heart Disease, Toronto, Ontario, May 2005. 1) Hypoplastic left heart syndrome: how can we further improve outcomes? 2) Open Forum: You ask the questions; challenge the panel with interesting cases.

**Williams WG:** Contemporary Questions in Congenital Heart Disease, Toronto, Ontario, May 2005. 1) "Who is the best surgeon for my child, doctor?" Should individual surgeon's results be available to parents? 2) When should we perform a myectomy in children with HOCM?

**Williams WG:** ACC International Symposium on Congenital Heart Disease in the Adult, Toronto, Ontario, May 2005. Determinants of quality in congenital heart surgery.

**Williams WG:** Canadian Cardiovascular Society, Calgary, Alberta, October 2004. John Keith Lecture: Improving the care of Canadian adults with congenital heart disease.

**Williams WG:** American Heart Association, New Orleans, Louisiana, November 2004. Long-term surgical outcomes: who is cured? Who needs reoperation? Who needs transplant?

**Wittnich C:** Heart & Stroke Foundation of Ontario, Richmond Hill, Ontario, March 2005. 1) Does sex really matter in affairs of the heart? 2) The role of gender in the heart's responses to stress.

**Wittnich C:** American Association of Wildlife Veterinarians/ Wildlife Disease Association, San Diego, California, August 2004. Mercury continues to be a threat to the conservation of marine mammals.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A training program in cardiovascular research: molecules to humans, heart failure to prevention (TACTICS). *r Liu P, Wittnich C, et al: CIHR (\$855,000 2002 - 2007).*

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).*

Integrin-linked kinase (ILK) improves cardiomyocyte survival. *Coles JG, Hannigan G: Canadian Institute of Health Research (CIHR) (\$93,065 2002 - 2005).*

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. *McCordle BW, Caldarone CA: National Institute of Health (\$10,000 2004 - 2005).*

## Honours Received

**Williams WG:** TSRA-AATS Dwight McGoon Surgeon-Mentor Award 2005, May 2005.

**Wittnich C:** Distinguished Alumni Award, Ontario Veterinary College, University of Guelph, June 2005.

**Wittnich C:** Sustained Contribution to Excellence in Graduate Teaching; Graduate & Inter-Faculty Affairs Awards; Faculty of Medicine, May 2005.

## **DIVISION OF GENERAL SURGERY**

**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**

**Avitzur Y, De Luca E, Cantos M, Jimenez-Rivera C, Jones N, Fecteau A, Grant D, Ng VL:** Health status ten years after pediatric liver transplantation--looking beyond the graft. *Transplantation*: August 2004; 27: pp 566-73.

**Aziz D, Chait P, Kreichman F, Langer JC:** Image-guided percutaneous gastrostomy in neonates with esophageal atresia. *Journal of Pediatric Surgery*: November 2004; 39: pp 1648-50.

**Barnes C, Gerstle JT, Freedman MH, Carcao MD:** Clostridium septicum myonecrosis in congenital neutropenia. *Pediatrics*: December 2004; 114: pp 757-760.

**Borenstein Sh, Choi M, Gerstle JT, Langer JC:** Errors and Adverse Outcomes on a Surgical Service: What is the role of residents? *Journal of Surgical Research*: December 2004; 123: pp 162-166.

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**Fecteau A:** Ethical issues in pediatric minimal access surgery. *Pediatric Minimal Access Surgery* (Langer J, Craig T, eds, eds). Marcel Dekker, Inc., 2005:

**Gesundheit B, Smith CR, Gerstle JT, Daneman A, Weitzman S, Chan HSH:** Ataxia and secretory diarrhea: two unusual paraneoplastic syndromes occurring concurrently in the same patient with ganglioneuroblastoma. *Journal of Pediatric Hematology and Oncology*: September 2004; 26: pp 549-552.

**Hill Da, Swanson PE, Anderson K, Covinsky MH, Finn LS, Ruchelli ED, Nascimento AG, Langer JC, Minkes RK, McAlister W, Dehner LP:** Desmoplastic nested spindle cell tumor of liver: report of four cases of proposed new entity. *American Journal of Surgical Pathology*: January 2005; 29: pp 1-9.

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**Langer JC:** Hirschsprung's disease. In: *Surgery of Infants and Children*, 2nd edition (Oldham et al, ed). Lippincott Williams and Wilkins, Philadelphia: 2005: pp 1347-64.

**Langer JC, Albanese CT:** Introduction: an evidence based approach to pediatric minimal access surgery. In: *Pediatric Minimal Access Surgery* (Langer JC, Albanese CT, eds). Taylor and Francis, Boca Raton: 2005: pp 1-6.

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- Tran L, Hebert D, Dipchand A, Fecteau A, Richardson S, Upton A:** Invasive pneumococcal disease in pediatric organ transplant recipients: A high-risk population. Transplantation: April 2005: 9: pp 183-186.
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- Wales PW:** Surgical Therapy for Short Bowel Syndrome. Pediatric Surgery International: September 2004: 20(9): pp 647-657.
- Wales PW, deSilva N, Kim JH, Lecce L, Sandhu A, Moore AM:** Neonatal Short Bowel Syndrome (SBS): A Cohort Study. Journal of Pediatric Surgery: May 2005: 40(5): pp 755-762.
- Wales PW, Dutta S:** Serial Transverse Enteroplasty As Primary Therapy for Neonates with Proximal Jejunal Atresia. Journal of Pediatric Surgery: March 2005: 40(3): pp E31-E34.



## Invited Visits to Other Hospitals/Universities

**Gerstle JT:** The Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, October 2004. A systematic approach to a novel integrated care program.

**Gerstle JT:** Canadian Association of Paediatric Surgeons, Winnipeg, Manitoba, October 2004. HSC No Boundaries: Mission to Nepal.

**Langer JC:** Asian Association of Paediatric Surgeons, Hong Kong, China, November 2004. 1) Primary vs staged pull-through for the treatment of Hirschsprung's disease. 2) Management of the fetus with a congenital anomaly. 3) Controversies in the management of abdominal wall defects. 4) Minimal access surgery in children: evidence-based practice.

**Langer JC:** Franklin J. Harberg Memorial Lectureship, Texas Children's Hospital and Baylor College of Medicine, Houston, Texas, March 2005. Advances in the management of Hirschsprung's disease.

**Langer JC** Dutch Society of Obstetrics and Gynecology, Arnhem, The Netherlands, November 2004. Controversies and new concepts in the management of the neonate with an abdominal wall defect.

**Langer JC:** Centro de Estudios Medicos e Investigaciones Clinicas, Buenos Aires, Argentina, April 2005. Controversies in the management of abdominal wall defects.

**Langer JC:** 27th Congress of the Ricardo Gutierrez Children's Hospital, Buenos Aires, Argentina, April 2005. 1) Hirschsprung's disease: an update in diagnostic and therapeutic approaches. 2) Minimal access surgery in children.

**Langer JC:** Second World Congress of Pediatric Gastroenterology, Hepatology & Nutrition, Paris, France, July 2004. Report of the working group on pediatric surgery of the digestive tract.

**Langer JC:** Texas Children's Hospital and Baylor College of Medicine, Houston, Texas, March 2005. The role of the surgeon in the management of inflammatory bowel disease.

**Langer JC:** Simpson Smith Symposium on Paediatric Surgery, Institute of Child Health, London, UK, June 2005. Transanal pullthrough for Hirschsprung's disease.

**Langer JC:** Great Ormand Street Hospital for Children, London, UK, June 2005. Transanal Soave pullthrough for Hirschsprung's disease.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A multicenter study of the clinical outcomes of the Nuss and Ravitch procedures for the repair of pediatric pectus excavatum. (A per/patient-based study). *Fecteau AH, Langer J: Children's Hospital of the King's Daughters (CHKD) (\$22,050 2003 - 2005).*

A pilot study for the development and validation of a health-related quality of life index for pediatric liver transplantation recipients: initial item generation phase. *Ng ., Thompson J, Nicholas D, Fecteau A: Pediatric Consultants (\$5,225 2004 - 2005).*

A pilot study for the development of a health-related quality of life index for paediatric liver transplant recipients: Initial item generation phase. *Ng VL, Nicholas D, Thompson J, Fecteau A: Hospital for Sick Children (\$5,221 2003 - 2005).*

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. *Skarsgard E, Bouchard S, Kim P, Laberge J-M, McMillan DD, Yanchar NL, Lee SK, Von Dadelsen P: Canadian Institutes of Health Research (\$214,080 2004 - 2008).*

Development and validation of a disease specific health-related quality of life questionnaire for children after liver transplantation. *Ng, V, Oatley A, Thompson J, Nicholas D, Gilmour J, Watters C, Fecteau, A: Canadian Institute of Health Research 2005 Competition (\$204,415 2005 - 2008).*

Developmental Pathways in Hindgut Embryogenesis. *Kim PCW: Canadian Institute of Health Research* (\$340,000 2002 - 2005).

Equipment Award: The Josie Walther Memorial Fund. *Kim PCW: (\$47,000 2004 - 2005).*

Molecular and Cellular Mechanisms of Gut Development. *Kim PCW: March of Dimes Birth Defects Foundation, USA* (\$330,000 2002 - 2005).

Optimizing cyclosporine exposure in paediatric liver transplant patients by the use of C2 monitoring. *Ng V, Fecteau A, Mouat S, Deluca E, Bossert A: Novartis Pharmaceuticals Canada Inc* (\$12,650 2003 - 2005).

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).

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

Surgery for perforated necrotizing enterocolitis in human infants: a randomized trial. *Langer JC, Moore A: National Institutes of Health, R01 HD 38462 (Multicenter Trial)* (\$750 2001 - 2004).

The Community-Based Materno-Fetal Health Network. *Kim PCW, Wales PW: 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).

The Group for The Improvement of Intestinal Function and Treatment: Development of Electronic Database. *Wales PW: The Hospital for Sick Children, Josie Walther Fund* (\$15,000 2004 - 2005).

## **Honours Received**

**Langer JC:** Franklin J. Harberg Memorial Lectureship, Baylor University, February 2005.

**Langer JC:** Pediatric Surgery Resident Teaching Award, June 2005.

**Langer JC:** Simpson Smith Visiting Professorship, Great Ormond Street Hospital for Children, London, UK, June 2005.

**Wales P:** Robert Salter Humanitarian Award Nominee, The Hospital for Sick Children, April 2005.

## **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**

**Al-Shafai N, Yahya R, Rutka JT:** Choroid Plexus Tumors. In: Textbook of Neuro-Oncology (Mitchel S. Berger, Michael D. Prados, eds). Elsevier Saunders, San Francisco, California: 2004: pp 729-734.

**Bhardwaj RD, Rutka JT:** Pituitary Tumors in Children. In: Textbook of Neuro-Oncology (Mitchel S. Berger, Michael D. Prados, eds). Elsevier Saunders, San Francisco, California: 2004: pp 701-709.

**Capra M, Wherrett D, Weitzman S, Dirks P, Hawkins C, Bouffet E:** Pituitary stalk thickening and primary central nervous system lymphoma. *Journal of Neuro-Oncology* 2004; 67: pp 227-231.

**Casha S, Drake JM, Rutka JT:** Pediatric Meningiomas. In: Textbook of Neuro-Oncology (Mitchel S. Berger, Michael D. Prados, eds). Elsevier Saunders, San Francisco, California: 2004: pp 687-691.

**Dennis M, Edelstein K, Copeland K, Frederick J, Francis D, Hetherington R, Blaser S, Kramer L, Drake J, Brandt M, Fletcher J:** Covert orienting to exogenous and endogenous cues in children with spina bifida. *Neuropsychologia*: January 2005: 43: pp 976-987.

**Dirks PB:** Brain Tumor Stem Cells. *Biol Bone Marrow Transpl* 2005: 101: pp12-13.

**Dirks PB:** Genetics of Hydrocephalus. In: *Pediatric Hydrocephalus* (Ste Rose C, Cinalli G, Maixner W, eds). Mac Keith Press Publications, London 2004: pp 1-17.

**Drake JM:** Neurofiberscopic management of slit-ventricle syndrome. *Journal of Neurosurgery (Pediatrics 3)*: February 2005: 102: pp 257-259.

**Follet KA, Boortz-Marx RL, Drake JM, Du Pen S, Schneider SJ, Turner MS, Coffey RJ:** Prevention and management of intrathecal drug delivery and spinal cord stimulation system infections. *Anesthesiology*: December 2004: 100(6): pp 1582-1594.

**Gnanaraj L, Gilliland MGF, Yahya R, Rutka JT, Drake J, Dirks P, Levin AV:** Ocular Manifestations of Crush Head Injury in Children. *Eye*: May 2005:

**Ho W, Drake J:** Minimally Invasive Pediatric Neurosurgery. In: *Pediatric Minimal Access Surgery*. (Langer J, Albanese C, eds). Techset Composition Limited, Salisbury, UK: 2004: pp 367-389.

**Holowka SA, Otsubo H, Iida K, Pang E, Sharma R, Hunjan A, Xiang J, Snead OC, Chuang NA, Chuang SH, Rutka JT:** Three-dimensionally reconstructed magnetic source imaging and neuronavigation in pediatric epilepsy: technical note. *Neurosurgery*: November 2004: 55 (5): pp E1244-1248.

**Iida Koji, Otsubo H, Matsumoto Y, Ochiai, Oishi M, Holowka S, Pang E, Elliott I, Weiss S, Chuang SH, Snead OC, Rutka JT:** Characterizing magnetic spike sources by using magnetoencephalography-guided neuronavigation in epilepsy surgery in pediatric patients. *Journal of Neurosurgery*: January 2005: (2) 102: pp 187-196.

**Ivanchuk SM, Rutka JT:** The cell cycle: accelerators, brakes, and checkpoints. *Neurosurgery*: March 2005: 54(3): pp 692-699.

**Kilimo P Jr., Thompson CJ, Drake JM, Kestle RW:** Assessing the validity of the endoscopic shunt insertion trial: Did surgical experience affect the results? *Journal of Neurosurgery: Pediatrics* 2: October 2004: 101: pp 130-133.

**Kongkham P, Rutka JT:** Neurocutaneous Syndromes. In: Textbook of Neuro-Oncology (Mitchel S. Berger, Michael D. Prados, eds). Elsevier Saunders, San Francisco, California: 2004: pp 818-831.

- Kulkarni AV, Drake JM, Rabin D, Dirks PB, Humphreys RP, Rutka JT:** Measuring the health status of children with hydrocephalus by using a new outcome measure. *Journal of Neurosurgery: Pediatrics*: November 2004: 101, 2: pp 141-146.
- Kulkarni AV, Hawkins C:** Chapter 100: Langerhans Cell Histiocytosis. In: *Textbook of Neuro-Oncology*. (Berger MS, Prados MD., eds). Elsevier Saunders,; 2004.
- Kulkarni AV, Pierre-Kahn A, Zerah M:** Spontaneous regression of spinal lipomas of the conus. *J Neurosurg Pediatr*: November 2004: 101: pp 226-227.
- Kulkarni AV, Rabin D, Drake JM:** An instrument to measure the health status of children with hydrocephalus: the Hydrocephalus Outcome Questionnaire. *J Neurosurg Pediatr*: November 2004: 101: pp 134-140.
- Mabbott DJ, Spiegler BJ, Greenberg ML, Rutka JT, Hyder DJ, Bouffet E,:** Serial Evaluation of Academic and Behavioral Outcome Following Treatment with Cranial Radiation in Childhood. *Journal of Clinical Oncology*: April 2005: 23-(10): pp 2256-2263.
- Midha R, Drake J:** Nerve transfers in severe obstetrical brachial plexus palsy. *Seminars in Plastic Surgery*: January 2005: 19: pp 78-85.
- Ng D, Stavrou T, Liu L, Taylor MD, Gold B, Dean M, Kelly MJ, Dubovsky EC, Vezina G, Nicholson HS, Vyrne J, Rutka JT, Hogg D, Reaman GH, Goldstein AM:** Retrospective family study of childhood medulloblastoma. *American Journal of Medicine Genetics*: March 2005: 134A(4): pp 399-403.
- O'Donnell S, Noseworthy M, Levine B, Brandt M, Dennis M:** Cortical thickness of the frontopolar area in typically developing children and adolescents. *Neuroimage*: January 2005: 24: pp 948-954.
- O'Kelly CJ, Rutka JT:** Optic Pathway Gliomas. In: *Textbook of Neuro-Oncology* (Al-Mefty O, Kele GE, Kliot M, Kwok K, McCormick P C, Parsa AT, Rutka JT, Sawaya R, eds). Elsevier Saunders, California: 2005: pp 579.
- Pietsch T, Taylor MD, Rutka JT:** Molecular pathogenesis of childhood brain tumors. *Journal of Neuro-Oncology*: August 2004: 00: pp 1-13.
- Punnett AS, McCarthy LJ, Dirks PB, Hawkins C, Bouffet E:** Patients with primary brain tumors as organ donors: case report and review of the literature. *Pediatric Blood Cancer* 2004: 43: pp 73-7.
- Ray A, Ho M, Ma J, Parkes RK, Mainprize TG, Ueda S, McLaughlin J, Bouffet E, Rutka JT, Hawkins CE:** Clinicobiological Model Predicting Survival in Medulloblastoma. *Clinical Cancer Research*: November 2004: 10: pp 7613-7620.
- Rutka JT, Jane JA:** Advances in the Surgical Management of Epilepsy. In: *Clinical Neurosurgery Volume 51 Proceedings of the Congress of Neurological Surgeons (The Congress of Neurological Surgeons, ed)*. Lippincott Williams & Wilkins, Denver, Colorado: 2004: pp 170-176.
- Rutka JT, Kuo JS:** Pediatric Surgical Neuro-oncology: Current best care practices and strategies. *Journal of Neuro-Oncology*: September 2004: 69: pp 139-150.
- Rutka JT, Kuo JS, Ray A, Ueda S, Mainprize T:** Advances in the treatment of pediatric brain tumors. *Future drugs*: July 2004: 4(5): pp 879-893.
- Rutka JT, O'Kelly CJ:** Optic Pathway Gliomas. In: *Textbook of Neuro-Oncology* (Mitchel S, Berger, Michael D. Prados, eds). Elsevier Saunders, San Francisco, California: 2004: pp 579-586.
- Rutka JT, Souweidane M, ter Brugge K, Armstrong D, Zuker R, Clarke H, Creighton R, McLeod E, Khoury A, Hoffman HJ:** Separation of Craniopagus twins in the era of modern neuroimaging, interventional neuroradiology, and frameless stereotaxy. *Child's Nervous System*: July 2004: 20 8-9: pp 587-592.
- Sakai K, Peraud A, Mainprize T, Nakayama J, Tsuga A, Hongo K, Kobayashi S, Rutka JT:** Inducible expression of p57KIP2 inhibits glioma cell motility and invasion. *Journal of Neuro-Oncology*: July 2004: 68(3): pp 217-223.
- Singh SK, Hawkins C, Clarke ID, Bayani J, Hide T, Cusimano M, Dirks PB:** Adult human glioma growth is exclusively maintained in vitro and in vivo by CD133+ cancer stem cells. *Society for Neuro-Oncology Ninth Annual Meeting, Toronto, Ontario, Nov 21, 2004*.
- Singh SK, Clarke ID, Hide T, Dirks PB:** Cancer Stem Cells in Nervous System Tumors. *Oncogene* 2004: 23: pp 7267-7273.
- Singh SK, Hawkins C, Clarke ID, Squire J, Bayani J, Henkleman RM, Cusimano M, Dirks PB:** Identification of human brain tumor initiating cells. *Nature* 2004: 432: pp 496-401.

**Singh S, Dirks P:** Supratentorial Low Grade Gliomas. In: Brain Tumors (Berger, M and Prados, M, eds). Elsevier Saunders, Philadelphia 2005: pp 572-578.

**Tamber M, Dirks P:** Supratentorial Primitive Neuroectodermal Tumors. In: Brain Tumors (Berger, M and Prados, M, eds). Elsevier Saunders, Philadelphia 2005: pp 675-681.

**Thippavong S, Kellenberger CJ, Rutka JT, Manson DE:** Hepatic and colonic perforation by an abandoned ventriculoperitoneal shunt. Pediatric Radiology: September 2004: 34(9): pp 750-752.

**Tsai EC, Rutka JT:** Cervicomedullary Gliomas. In: Textbook of Neuro-Oncology (Mitchel S. Berger, Michael D. Prados, eds). Elsevier Saunders, San Francisco, California: 2004: pp 638-645.

**Tuli S, Tuli J, Drake J, Spears J:** Predictors of death in paediatric patients requiring cerebrospinal fluid shunts. Journal of Neurosurgery Spine: November 2004: 100(5): pp 442-446.

**Yahya R, Mainprize T, Hawkins C, Bilbao JM, Rutka JT:** Lhermitte-Duclos Disease. In: Textbook of Neuro-Oncology (Mitchel S. Berger, Michael D. Prados, eds). Elsevier Saunders, San Francisco, California: 2004: pp 612-616.

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

**Dennis M:** American Psychological Association Annual Meeting, Honolulu, Hawaii, August 2004. Invited Lecturer: Gene, Brain, and Behaviour in Spina Bifida.

**Dirks PB:** Abbott Laboratories, Cancer Stem Cell Meeting, Chicago, Illinois, April 2005. Identification of human Brain Tumour Initiating Cells.

**Dirks PB:** Alberta Heritage Foundation for Medical Research Visiting Lecturer, University of Calgary, Calgary, Alberta, Jun 7, 2005. Identification of Human Brain Tumor Initiating Cells.

**Dirks PB:** American Association of Neurologic Surgeons/Congress of Neurosurgeons Section on Tumors, Sixth Biennial Satellite Symposium, San Francisco, California, October, 2004. Brain Tumor Stem Cells (Plenary lecture). October 2004.

**Dirks PB:** American Society of Pediatric Neurosurgeons, Maui, Hawaii, January, 2005. Brain Tumor Stem Cells: Getting at the Determinants of Brain Tumor Growth.

**Dirks PB:** BrainChild Seventh Annual Paediatric Brain Tumour Conference, Toronto, Ontario, April 2005. Finding the Roots of Brain Tumour Growth: Brain Tumour Stem Cells.

**Dirks PB:** British Association for Cancer Research Conference: Stem cells and telomerase, targets for transformation and therapeutic applications, Cyprus, October, 2004. Identification of a cancer stem cell in human brain tumors.

**Dirks PB:** The College of Family Physicians: 2004 Family Medicine Forum, Toronto, Ontario, November, 2004. Head and Sports Injuries: How can I feel reasonably confident that this child is safe to return to play following an injury.

**Dirks PB:** Communitel Market Intelligence Inc., Sixteenth Annual Cancer Progress Conference, New York, New York, March 2005. Cancer Stem Cells: A New Hope in Therapeutics?

**Dirks PB:** Frontiers in Cancer Series Lecture, University of Maryland, Baltimore, Maryland, May, 2005. Cancer Stem Cells in Solid Tumors: Brain Cancer As A Model.

**Dirks PB:** Hospital for Sick Children: Joint Developmental Biology/Cancer Seminar Series, Toronto, Ontario, January, 2005. Brain Tumor Stem Cells: Getting at the roots of brain tumor growth.

**Dirks PB:** McMaster University Neuroscience Rounds, Hamilton, Ontario, May, 2005. Identification of Human Brain Tumour Stem Cells.

**Dirks PB:** National Cancer Institute, Mouse Models of Human Cancers Consortium, Steering Committee Meeting, New Brunswick, New Jersey, Jun 28, 2005. Stem Cells Roundtable: Human Brain Tumor Initiating Cells.

**Dirks PB:** Seventh Annual Comprehensive Cancer Center Scientific Meeting, Advances in Neuro-Oncology, Ohio State University, Columbus, Ohio, March, 2005. Cancer Stem Cells: The Roots of Brain Tumour Growth.

**Dirks PB:** Stem Cell Network (CIHR Center of Excellence), Montreal, Quebec, November, 2004. Cancer Stem Cells in Central Nervous System Tumours.

**Dirks PB:** Tandem BMT Meetings, Keystone, Colorado, February, 2005. Brain Cancer Stem Cells.

**Dirks PB:** Toronto Signaling Network, Toronto, Ontario, May 12, 2005. Brain Tumours As Caricatures of Normal Development.

**Dirks PB:** University of Wisconsin, Madison, Wisconsin, March, 2005. Brain Tumor Stem Cells: Linking Neural Stem Cell Biology to Brain Cancer (McArdle Cancer Biology Seminar).

**Drake JM:** World Federation of Neurological Surgeons., Marrakech, Morocco, June 2005. 1) Spinal lipoma and tethered cord syndrome. 2) Intracranial ependymomas in childhood: Outcome, prognosis factors. 3) Hydrocephalus; Chairman of Meetings: 1) Neuroendoscopy: Innovations and controversies.

**Drake JM:** American Association of Neurological Surgeons., New Orleans, Louisiana., April 2005. 1) Discussant for Scientific Session IV #737 "Endocrine Changes Following Endoscopic Third Ventriculostomy in Children. 2) Moderator for Seminar #222 "Complex Pediatric Spine and Spinal Cord Anomalies". 3) Abstract Presentation: Plenary Session II #757 "Endoscopic Third Ventriculostomy in Pediatric Patients - The Canadian Experience". 4) Moderator for Seminar #325 "Future Technology for Treating Hydrocephalus". 5) Breakfast Seminar: Designated Nursing Continuing Education. 6) JSNTCC Res. Award for "Iatrogenic spinal cord injury in the pediatric population: evaluation of contributing factors and outcomes" by Tsai Eve, Lamberti-Pasculli Maria, Drake James.

**Drake JM:** Canadian Congress of Neurological Sciences, Ottawa, Ontario, June 2005. Canadian Pediatric Neurosurgery Study Group Business Meeting.

**Drake JM:** American Association of Neurological Surgeons/Congress of Neurological Surgeons, San Francisco, California, December 2004. Controversies: Tethered spinal cord.

**Drake JM:** Asia Pacific Course in Pediatric Neurosurgery, Queensland, Australia, October 2004. First year of first cycle: 1) Hemispheric tumours: Case discussion, and Video, 2) Surgical techniques - How to do it: Image guided surgery, 3) Epilepsy surgery in children: Temporal lobe epilepsy, and Video, 4) Spasticity and CNS infection: Post-operative infections, and Video.

**Drake JM:** University of Calgary., Calgary, Alberta, February 2005. Seminars in Plastic Surgery. Nerve transfers in severe obstetrical brachial plexus palsy: Obstetrical brachial plus paralysis, Part 2.

**Drake JM:** Mathematics Biomedical Network, Glasgow, Scotland, May 2005. Talk: Hydrocephalus and Cerebral Spinal Fluid.

**Kulkarni AV:** American Association of Neurological Surgeons Annual Meeting, New Orleans, Louisiana, April 2005. a) Patient assessment and outcomes in neurosurgery. b) Pediatric posterior fossa tumours - medulloblastoma. c) Discussant for oral presentation on non-invasive MRI ICP measurement.

**Rutka JT:** Newtonbrook Secondary School, Toronto, Ontario, June 2005. 40th Annual Newtonbrook Athletic Banquet.

**Rutka JT:** Canadian Syringomyelia Network, Toronto, Ontario, November 2004. A History of Pediatric Neurosurgery, and the Treatment of Syringomyelia and Chiari Malformation.

**Rutka JT:** 45th Annual Turner-Gibson Memorial Oration Pediatric Society of Queensland & Pediatric Division RACP, Queensland, Australia, September 2004. Advances in the diagnosis and treatment of brain tumors.

**Rutka JT:** WFNS Tumor Section Meeting 2004, Jaipur, India, October 2004. 1) Avoiding Complications in Posterior Fossa Surgery. 2) Brainstem Tumors in Children. 3) Improving patient outcome while minimising morbidity. 4) Management of Pediatric Brain tumors. 5) Molecular determinants of glioma invasion.

**Rutka JT:** Brazilian Congress of Neurological Surgery, Goiania, Brazil, September 2004. 1) Combined use of fMR, cortical mapping, stereotaxy and frameless stereotaxy for resection of lesions in eloquent brain areas of a child. 2) Round Table discussion: Hydrocephalus in childhood. 3) Sellar and Suprasellar Tumors in Childhood and adolescence. 4) Pineal Tumors. 5) Rationalization for early indication of epilepsy surgery in childhood. 6) Treatment of nervous system tumors in childhood: What does the future hold in store for us.

**Rutka JT:** American Association of Neurological Surgeons, New Orleans, Louisiana, April 2005. 1) Current Treatment Options for Pediatric Epilepsy. 2) Moderator, Special Scientific Session- Neurosurgery with the masters: In my Experience. 3) Farber Award: >From Mice to Men. 4) Plenary Session II: Moderator. 5) Tumor Neurosurgery: Meet the Experts. 6) . Where the Girls Aren't: Practice Patterns Amongst Women Neurosurgeons in North America.

**Rutka JT:** RUNN Course, Woods Hole, Boston, October 2004. Developmental Signaling Pathways and Human Brain Tumors.

**Rutka JT:** Brain Tumor Seminar Royal Children's Hospital in Melbourne, Melbourne, Australia, September 2004. A) Disturbances in developmental signalling pathways predispose to medulloblastoma.

**Rutka JT:** Neurosurgical Society of Australia 2004 Annual Meeting, Newcastle New South Wales, Australia, September 2004. 1) Epilepsy surgery in children: The Hospital for Sick Children Experience. 2) Neurosurgical management of epilepsy in children. 3) Newcastle New South Wales, Australia, September 2004. Jamieson Lecture: The Evolution of neurosurgical Techniques for the child with a brain tumor.

**Rutka JT:** American Society of neuro-Radiology, Toronto, Ontario, May 2005. Evaluation and Management of Intractable Seizure in Children.

**Rutka JT:** Division of Neurosurgery, Dalhousie University, Halifax, Nova Scotia, March 2005. Malignant Brain Tumors: Past Present and Future.

**Rutka JT:** Visiting Professor, Department of Neurosurgery, CINN-RUSH University Medical Center, Chicago, Illinois March 2005. Malignant Brain Tumors: Past Present and Future.

**Rutka JT:** Neurosurgical Society of Australia 2004 Annual Meeting, Newcastle New South Wales, Australia, September 2004. Neurosurgical Approaches to Brainstem tumors in children.

**Rutka JT:** University of Pennsylvania, Sandie Altman Memorial Lecture, Philadelphia, PA, March 2005. Neurosurgical Management of Rolandic Epilepsy.

**Rutka JT:** 1st International Levantine Forum “Advances in Neurological Surgery”, Bari, Italy, November 2004. 1) Separation of Craniopagus Twins: The Hospital for Sick Children Experience. 2) The Neurosurgical Management in Epilepsy in Children. 3) Magistral Lecture: “Current and Future Management of Brain Tumors in Children”.

**Rutka JT:** Epilepsy Symposium, Michener Institute, Toronto, Ontario, April 2005. Surgery in Epilepsy.

**Rutka JT:** Neuroscience Research Day October 25th, 2004, Toronto, Ontario, October 2004. The Pathophysiology of Seizures and its Relationship to Grid Surgery.

**Rutka JT:** Plastic Surgery Research Council, Toronto, Ontario, May 2005. What you can dream.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A molecular-epidemiologic case-control study of pediatric brain tumours in Ontario. *McLaughlin J, Malkin D, Rutka J, Wells P, Greenberg M: National Cancer Institute (\$506,237 2001 - 2004).*

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

Canadian Centre for Applied Cancer genetics. *Malkin D, Rutka JT: Canada Foundation for Innovation (\$2,175,000 2001 - 2005).*

Cellular and molecular characterization of cancer stem cells in human brain tumors (acceptance Pending NCIC overlap). *Dirks PB: Canadian Institutes of Health Research (\$423,195 2004 - 2007).*

Exploring the relationship between caregiver and child safety knowledge, attitudes, and behaviours and injury occurrence in children. *Cusimano MD, Morrongieo 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).*

Mathematical and computer modelling of hydrocephalus. *Sivaloganathan S, Drake JM, Tenti P: NSERC Collaborative Health Research Grant (\$227,625 2002 - 2005).*

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

Pediatric posterior fossa tumors: Preoperative predictors of chronic hydrocephalus. *Riva-Cambrin J, Drake JM: The Physicians' Services Incorporated Foundation (\$20,000 2004 - 2005).*

Spina Bifida: Cognitive and neurobiological variability (Transition funds). *Fletcher JM (Houston site), Dennis M (Toronto site), Northup H, Landry S, Papanicolaou A: National Institutes of Health (\$75,000 2004 - 2005).*

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

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## **Honours Received**

**Dirks PB:** Canada's Top 40 Under 40 (Report on Business Magazine, Caldwell Partners), July 2004.

**Dirks PB:** 2005 Royal College Medal Award in Surgery (Royal College of Physicians and Surgeons of Canada), January 2005

**Dirks PB:** George Armstrong Peters Prize (Outstanding Academic Productivity in Research), May 2005.

**Rutka JT:** Farber Award 2005 AANS, April 2005.



## **DIVISION OF ORTHOPAEDIC SURGERY**

**Dr. B.A. Alman - Professor (Division Head)**

**Dr. W.G. Cole - Professor**

**Dr. D.M. Hedden - Associate 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**

**Beaton DE, Wright JG, Katz JN, Amadio P, Bombardier C, Cole D, Davis A, Hawker GA, Hudak PL, Makela M, Marx R, Punnett L:** Development and testing of the Quick DASH using a comparison of three item-reduction techniques. *Journal of Bone and Joint Surgery (American)*: May 2005: 87(5): pp 1038-1046.

**Beveridge M, Howard AW:** The burden of orthopaedic disease in developing countries. *Journal of Bone and Joint Surgery (American)*: August 2004: 86-A(8): pp 1819-22.

**Bhandari M, Swiotkowski MF, Einhorn TA, Tornetta P 3rd, Schemitsch EH, Leece P, Sprague S, Wright JG:** Interobserver agreement in the application of levels of evidence to scientific papers in the American volume of the *Journal of Bone and Joint Surgery*. *Journal of Bone and Joint Surgery (American)*: August 2004: 86-A(8): pp 1717-1720.

**Biggar WD, Politano L, Harris VA, Passamano L, Vajsar J, Alman BA, Palladino A, Comi LI, Nigro G:** Deflazacort in Duchenne muscular dystrophy: a comparison of two different protocols. *Neuromuscular Disorders*: September 2004: 14 (8-9): pp 476-82.

**Chen T-LL, Stevens JW, Cole WG, Hecht JT, Vertel BM:** Cell-type specific trafficking of expressed mutant COMP in a cell culture model for PSACH. *Matrix Biology*: November 2004: 23: pp 433-444.

**Clark JP, Hudak PL, Hawker GA, Coyte PC, Kreder HJ, Mahomed NN, Wright JG:** The moving target: A qualitative study of elderly patients' decision-making regarding total joint replacement surgery. *Journal of Bone and Joint Surgery (American)*: July 2004: 86-A(7): pp 1369-1374.

**Cole WG:** Olpadronate reduced fractures in children with osteogenesis imperfecta. *Journal of Bone and Joint Surgery (American)*: November 2004: 86-A: pp 2575.

**Damignani R, Badley E, Young N, Cole WG:** Impairment and disability associated with epiphyseal dysplasia in children. *Archives of Physical Medicine and Rehabilitation*: October 2004: 85: pp 1647-1652.

**Emam A, Sennah K, Howard AW, Chapman M:** A study of injury parameters for rearward and forward facing 3-year-old child dummy using numerical simulation. *International Journal of Crashworthiness*: March 2005: 10: pp 211-222.

**Feise RJ, Donaldson S, Crowther T, Menke JM, Wright JG:** Construction and validation of the scoliosis quality of life index in adolescent idiopathic scoliosis. *Spine*: June 2005: 30(11): pp 1310-1315.

**Groll DL, To TM, Bombardier C, Wright JG:** The development of a functional comorbidity index with physical function as the outcome. *Journal of Clinical Epidemiology*: June 2005: 58 (6): pp 595-602.

**Hawker GA, Wright JG, Badley EM, Coyte PC for the Toronto Arthroplasty HealthServices Research Consortium:** Perceptions of, and willingness to consider, total joint arthroplasty in a population-based cohort of individuals with disabling hip and knee arthritis. *Arthritis and Rheumatism*: August 2004: 51(4): pp 635-641.

**Howard AW, Rothman L, Macarthur C, Macpherson A:** Removal of unsafe school playground equipment reduces children's injuries: a population based study. *Canadian Medical Association Journal*: May 2005: 172: pp 1443-1446.

**Hudak PL, Hogg-Johnson S, Bombardier C, McKeever PD, Wright JG:** Testing a new theory of patient satisfaction with treatment outcome. *Medical Care*: August 2004: 42(8): pp 726-739.

**Hudak PL, McKeever P, Wright JG:** Understanding the meaning of satisfaction with treatment outcome. *Medical Care*: August 2004; 42(8): pp 712-725.

**Jakkula E, Makitie O, Czarny-Ratajczak M, Jackson GC, Damignani R, Susic M, Briggs MD, Cole WG, Ala-Kokko L:** Mutations in the known genes are not the major cause of MED; distinctive phenotypic entities among patients with no identified mutations. *European Journal of Human Genetics*: November 2004:

**Khurana JS, Ogino S, Shen T, Parekh H, Scherbel U, DeLong W, Feldman MD, Zhang PJ, Wolfe HJ, Alman BA:** Bone morphogenetic proteins are expressed by both bone-forming and non-bone-forming lesions. *Archives of Pathology and Laboratory Medicine*: November 2004; 128(11): pp 1267-69.

**Kong Y, Nadesan P, Poon R, Fodde R, Kokha R, Alman BA:** Matrix Metalloproteinase activity regulates cell invasiveness in aggressive fibromatosis. *Cancer Research*: August 2004; 64(16): pp 5795-803.

**Leitch KK, Raza N, Biggar D, Stephens D, Wright JG, Alman BA:** Should foot surgery be performed for children with Duchenne muscular dystrophy? *Journal of Pediatric Orthopaedics*: January 2005; 25(1): pp 95-97.

**Macpherson AK, To MT, Parkin PC, Moildofsky B, Wright JG, Chipman ML, Macarthur C:** Urban-rural variation in children's bicycle-related injury. *Accident Analysis and Prevention*: July 2004; 36(4): pp 649-654.

**Narayanan UG, Hyman J, Wainwright A, Rang M, Alman BA:** Complications of flexible intramedullary nailing of pediatric femur fractures, and how to avoid them. *J Pediatr Orthop*. 2004 Jul-Aug;24(4):363-369. *Journal of Pediatric Orthopaedics*: July 2004; 24(4): pp 363-369.

**Price V, Fletcher J, Zielenska M, Cole W, Viero S, Manson D, Pappo A:** Imatinib mesylate: an attractive alternative for the treatment of young children with large, surgically challenging dermatofibrosarcoma protuberans. *Pediatric Blood and Cancer*: October 2004:

**Skaggs DL, Friend L, Alman B, Chambers HG, Schmitz M, Leake B, Kay RM, Flynn JM:** The effect of surgical delay on acute infection following 554 open fractures in children. *Journal of Bone and Joint Surgery (American)*: January 2005; 87-A(1): pp 8-12.

**Smith PL, Owen JL, Fehlings D, Wright JG:** Measuring physical function in children with spina bifida and dislocated hips: The spina bifida hips questionnaire. *Journal of Pediatric Orthopaedics*: June 2005; 25(3): pp 273-279.

**Wai EK, Young NL, Feldman BM, Badley EM, Wright JG:** The relationship between function, self-perception, and spinal deformity: Implications for treatment of scoliosis in children with spina bifida. *Journal of Pediatric Orthopaedics*: January 2005; 25(1): pp 64-69.

**Wong J, Boyd R, Keenan NW, Baker R, Selber P, Wright JG, Natrass G, Graham HK:** Gait patterns after fracture of the femoral shaft in children, managed by external fixation or early hip spica cast. *Journal of Pediatric Orthopaedics*: September 2004; 24(5): pp 463-471.

**Wright JG, Gebhart M:** Multicenter clinical trials in orthopaedics: Time for musculoskeletal specialty societies to take action. *Journal of Bone and Joint Surgery (American)*: January 2005; 87-A(1): pp 214-222.

**Wright JG, Wang EEL, Owen JL, Stephens D, Graham HK, Hanlon M, Natrass GR, Reynolds RAK, Coyte PC:** Treatments for paediatric femoral fractures: a randomized trial. *Lancet*: April 2005; 365: pp 1153-1158.

**Wright JG, Wedge JH:** Clinicians and patients' welfare: Where does academic freedom fit in? *British Medical Journal*: October 2004; 329(7469): pp 795-796.

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

**Alman BA:** International Pediatric Orthopaedic Symposium, Orlando, Florida, December 2004. 1) Bone and Joint infections. 2) Genetic disorders in orthopaedics.

**Alman BA:** Belgium Association Pediatric Orthopaedics, Leuven, Brussels, October 2004. 1) Genetic Causes of congenital Scoliosis. 2) Scoliosis in Duchenne Muscular Dystrophy.

**Alman BA:** International Pediatric Orthopaedic Symposium, Orlando, Florida, December 2004. Slipped Capital Femoral Epiphysis.

**Alman BA:** University Medical Center Rotterdam, Rotterdam, Netherlands, October 2004. What Neoplasia Teaches About Development: The Gli Genes in Chondrocytes.

**Cole WG:** 12th Annual Scientific Meeting, Iranian Orthopaedic Association, Tehran, Iran, September 2004. Presidential Guest Professor; "Genetics and orthopaedics - new advances", "Brachial plexus palsy", "Controversies in club foot management", "Pediatric tumors".

**Hedden DM:** Alpha Group, Annual Meeting, Cancun, Mexico, January 2005. 1) How do we turn resident into the people we want to work with? 2) Thoracic insufficiency: Should we be doing the Campbell procedure?

**Howard A:** Makerere University Orthopaedic Residency Program, Kampala, Uganda, August 2004. Fracture Management (Visiting Professor Rounds).

**Howard A:** CBC Radio, Toronto, Ontario, May 2005. Paper Press Release: Removal of unsafe school playground equipment reduces children's injuries: a population based study.

**Howard A:** CFTO, Toronto, Ontario, May 2005. Paper Press Release: Removal of unsafe school playground equipment reduces children's injuries: a population based study.

**Howard A:** The Globe and Mail, Toronto, Ontario, May 2005. Paper Press Release: Removal of unsafe school playground equipment reduces children's injuries: a population based study.

**Howard A:** POSNA, September 2004. POSNA Traveling Fellowship--Clinical teaching in multiple venues across South America.

**Narayanan UG:** American Academy of Cerebral Palsy & Developmental Medicine Annual Meeting; September 30, 2004, Los Angeles, California, September 2004. Caregiver Priorities & Child Health Index of Life with Disabilities (CPCHILD): the initial development and Validation of a Disease-Specific Measure of Health Status and well being of Children with Severe Disabilities due to Cerebral Palsy.

**Narayanan UG:** Royal Children's Hospital, Melbourne, Australia; November 3, 2004, Melbourne, Victoria, Australia., November 2004. 1) Caregiver Priorities & Child Health Index of Life with Disabilities (CPCHILD): Development & Validation of a new Health Related Quality of Life Instrument for Children with Severe Cerebral Palsy. 2) The Management of Paediatric Femur Fractures: The indications, principles and technique of elastic stable intramedullary nailing.

**Narayanan UG:** Combined Orthopaedic Associations Meeting 2004, Sydney, New South Wales, Australia, October 2004. Concerns, Desires & Expectations of Adolescents undergoing Surgery for Idiopathic Scoliosis: A Comparison of Patients', Parents' and Surgeons' Priorities; October 27, 2004.

**Narayanan UG:** Ontario Association of Children's rehabilitation Services (OACRS) Annual Conference 2004, Richmond Hill, Ontario, October 2004. Management of Cerebral Palsy in Children: The Role of the Orthopaedic Surgeon; October, 2004.

**Narayanan UG:** Asia Pacific Orthopaedic Association, 14th Triennial Congress, Kuala Lumpur, Malaysia, September 2004. 1) Management of Paediatric Femoral Fractures: A Quiver full of Arrows; September 9, 2004. 2) The Role of Gait Analysis in the Management of Children with Ambulatory Cerebral Palsy: Current Evidence; September 9, 2004. 3) Concerns, Desires & Expectations of Adolescents undergoing Surgery for Idiopathic Scoliosis: A Comparison of Patients', Parents' and Surgeons' Priorities; September 7, 2004. 4) Complications of Elastic Stable Intramedullary Nailing of Paediatric Femoral Fractures & How to Avoid Them; September 9, 2004.

**Narayanan UG:** Advanced AO-ASIF Course on Basic Principles & Techniques of Operative Fracture Management, Toronto, Ontario, November 2004. 1) Paediatric Fracture Management: Panel Discussion. 2) Update on the Management of Paediatric Femoral Fractures: Elastic Stable Intramedullary Nailing versus Alternatives.

**Salter RB:** University of Montreal. St. Justine Paediatric Orthopaedic Review Course (SPORC), Montreal, March 2005. (1) Continuous passive motions - basic research (2) Continuous passive motion - clinical application.

**Wright JG:** University of Virginia, Virginia, March 2005. Chairman's guest lecturer. i) Changing orthopaedic from practice-based evidence to evidence-based practice. ii) Femoral shaft fractures in children.

**Wright JG:** Ontario Orthopaedic Association, Toronto, Ontario, October 2004. Pediatric fractures: Will it remodel?

## Research And Investigations

*Senior Investigator's Name Appears in Italics*

An evaluation of the benefits of physical activity on bone mineral density and prevention of fractures in children with spina bifida. *Johnson P, Craven C, Wright JG (Consultants: Ross M, Parker K): Bloorview Children's Hospital Foundation (\$180,584 2003 - 2005).*

Auto21. *Howard AW and 185 other investigators: Networks of Centres of Excellence (\$23,000,000 2001 - 2005).*

Child Pedestrian Injuries in Kampala, Uganda: Data Sources and Determinants. *Howard A, Lett R, Willan A, Macarthur C, Kobusingye O, Magambo E, Beveridge M: Canadian Institutes of Health Research (\$77,700 2004 - 2005).*

Continuous passive motion - an anti-inflammatory signal in an adjuvant-induced model of arthritis. *Agarwal S, Salter RB, Alman B: National Institutes of Health (NIH) (\$654,000 2001 - 2004).*

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

Development and validation of a pediatric comorbidity index using administrative data. *Tai D, Wright JG, Dick P, To T: Ontario Graduate Scholarship (OGS)* (\$10,000 2004 - 2005).

Development and validation of a pediatric comorbidity index using administrative data. *Tai D, Wright JG, Dick P, To T: Restrcomp; The Hospital for Sick Children* (\$14,000 2003 - 2005).

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) research grant award* (\$40,000 2004 - 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: Hospital for Sick Children, Research Institute Scientist Track Investigator Start Up* (\$55,000 2003 - 2004).

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 U, Darcy Fehlings D: Bloorview MacMillan Children's Foundation* (\$23,000 2004 - 2005).

Fractures in children with spina bifida: Prevention and improved treatment. *Johnson P, Ross M, Biggar D, Wright JG: Bloorview Children's Hospital Foundation* (\$180,584 2003 - 2005).

>From Knowledge Generation to Knowledge Translation: A Systems Approach to Reducing the Burden of Injury in Canada. *Raina R, MacArthur C, Holowaty h, Howard AW, Morrongiello B, Shannon H, et al: 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, Grynblas MD, Henderson JE, Stanford WL, Vogel WF: Canadian Institutes of Health Research* (\$1,162,705 2004 - 2009).

Interdisciplinary Health Research Team in Musculoskeletal Neoplasia : 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).

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

Molecular mechanisms in wound healing. *Alman BA: Canadian Institute of Health Research* (\$299,340 2002 - 2005).

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

Molecular pathology of Ehlers-Danlos syndrome and chondrodysplasias. *Cole WG: Canadian Institutes of Health Research* (\$1,319,583 1999 - 2004).

Randomized Control Trial of casting vs Air-Stirrup ankle brace in children with acute low-risk ankle fractures. *Boutis K, Babyn P, Narayanan UG, Alman BA: Physicians' Services Incorporated Foundation* (\$150,500 2003 - 2005).

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

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

The chondrogenic potential of autogenous skeletal muscle grafts in a full-thickness defect in the knee joint surface under the influence of continuous passive motion (CPM): An experimental investigation in the rabbit. *Salter R, Alman B: Josie Waltham Research Fund* (\$30,000 2002 - 2004).

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

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

The role of scoliosis surgery in children with spina bifida. *Roposch A, Wright JG: Trainee's Start-up Fund, The Hospital for Sick Children* (\$2,000 2004 - 2005).

The Utilization of Gait Analysis for Clinical Decision Making in Management of Children with Cerebral Palsy: Measuring Surgeons's Uncertainty and Region Variation in North America. *Narayanan UG, Morris A, Redekop S: Bloorview MacMillan Children's Foundation* (\$24,410 2004 - 2005).

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

## **Honours Received**

**Salter RB:** 2005 Award from the Paediatric Orthopaedic Society of North America "In Recognition of many Contributions to the Diagnosis and Treatment of Children with Developmental Dysplasia of the Hip", May 2005.

**Salter RB:** The 2004 Scientific Citizen of the Year Award, December 2004.

**Salter RB:** The Ivey Award of the Canadian Medical Hall of Fame, September 2004.

**Narayanan UG:** MacKieth Press Young Investigator Award of American Academy of Cerebral Palsy & Developmental Medicine (AACPDM) 2004-2005, October 2004.

**Wright JG:** The Canadian Institutes of Health Research Institute of Musculoskeletal Health and Arthritis Quality of Life Research Award, February 2005.

## **DIVISION OF PLASTIC SURGERY**

**Dr. H.M. Clarke- Professor**

**Dr. D.M. Fisher - Assistant Professor**

**Dr. C.R. Forrest - Associate Professor (Division Head)**

**Dr. Cho Y. Pang - Professor**

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

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

## **Publications**

**Armour A, Fischbach S, Klaiman P, Fisher DM:** Does velopharyngeal closure pattern affect the success of pharyngeal flap pharyngoplasty? *Plastic and Reconstructive Surgery*: January 2005: 115(1): pp 45-52.

**Baune L, Forrest CR, Keith T:** Adolescents' perspective on living and growing up with Treacher Collins Syndrome: A qualitative Study. *The Cleft Palate-Craniofacial Journal*: July 2004: 41 (4): pp 343 - 350.

**Jaeger MRP, Viero S, Zuker RM:** Cutaneous ganglioneuroma within a giant congenital nevus. *The Canadian Journal of Plastic Surgery* 2005 April 2005: 13(1): PP 39-42.

**Khan A, Ashrafpour H, Huang N, Neligan PC, Kontos C, Zhong A, Forrest CR, Pang CY:** Acute local subcutaneous VEGF injection for augmentation of skin flap viability: efficacy and mechanism. *American Journal of Physiology*: November 2004: 287 (5): pp 1219-29.

**La Scala GC, O'Donovan DA, Yeung I, Darko J, Addison PD, Neligan PC, Pang CY, Forrest CR:** Radiation-induced craniofacial bone growth inhibition: efficacy of cytoprotection following a fractionated dose regimen. *Plastic Reconstructive Surgery*: June 2005: 115(7): pp 1973-85.

**Marcus JR, Fisher DM, Lenz GJ, Magee WP, Zuker RM:** Inadequate gingivolabial sulcus remains an avoidable problem after bilateral cleft lip repair. *Plastic and Reconstructive Surgery*: January 2005: 115(1): pp 220-5.

**Moses MA, Addison PD, Neligan PC, Ashrafpour H, Huang N, Zair M, Rasuli A, Forrest CR, Grover GJ, Pang CY:** Mitochondrial K<sub>ATP</sub> channels in hind limb remote ischemic preconditioning of skeletal muscle against infarction. *American Journal of Physiology Heart Circ Physiol*: February 2005: 288(2): pp H559-67.

**Olson JL, Marcus JR, Zuker RM:** Congenital Epulis: A case report and review. *The Journal of Craniofacial Surgery*: November 2004: 15 (6): pp 1-3.

**Phillips, JH, Klaiman, P, Delorey, R, MacDonald D:** Predictors of Velopharyngeal Insufficiency (VPI) in Cleft Palate Orthognathic Surgery. *Journal of Plastic and Reconstructive Surgery*: March 2005: 115(3): pp 681-686.

**Phillips JH, Tang CL, Armstrong D, de Chalain T, Zuker, R:** Congenital Arteriovenous Malformations: A Follow-up of Treatment. *The Canadian Journal of Plastic Surgery*: March 2005: 13(1): pp 23-26.

**Rutka JT, Souweidane M, ter Brugge K, Armstrong D, Zuker R, Clarke H, Creighton R, McLeod E, Khoury A, Hoffman HJ:** Separation of craniopagus twins in the era of modern neuroimaging, interventional neuroradiology, and frameless stereotaxy. *Child's Nervous System*: August 2004: 20(8-9): pp 587-592.

## Invited Visits to Other Hospitals/Universities

**Clarke HM:** Exploring Shoulder Dystocia and Brachial Plexus Injury: Multidisciplinary Perspectives, Johns Hopkins University, Baltimore, Maryland, May 2005. (1) The connection between shoulder dystocia and obstetric brachial plexus palsy: How strong is it? (2) Establishing standards: Objectively defining the severity of shoulder dystocia and brachial plexus injury (Panel).

**Clarke HM:** 4th Annual International Paediatric Burns Videoconference 2004 (Via Telehealth), Brisbane, Townsville, Toronto, Galveston, Salisbury, Sydney and Adelaide, November 2004. Scald burn injury in children: Predictors of distress during burn treatment (with Young AR, Hubley PL, Hanson MD).

**Fisher DM:** Operation Smile, Bogota, Columbia, South America, September 2004. A) Bilateral cleft lip repair. B) Cleft lip nasal deformity.

**Fisher DM:** 21st Annual Symposium of the South Carolina Center for Cleft Palate and Craniofacial Disorders, Columbia, South Carolina, USA, April 2005. 1) Cleft lip nasal deformity. 2) Unilateral cleft lip repair - an anatomic subunit approximation technique.

**Fisher DM:** Operation Smile, Wuhan, China, November 2004. Member of a team of volunteer plastic surgeons.

**Forrest CR:** American Society of Plastic Surgeons, Philadelphia, October 2004. 1) Report on Plastic Surgery Research Council. 2) Secondary Cleft Rhinoplasty.

**Pang CY:** Chinese University of Hong Kong - Division of Plastic Surgery - Research Seminar, Hong Kong, October 2004. Muscle ischemia and reperfusion injury in reconstructive surgery: Current trend in research towards prevention.

**Phillips JH:** AO ASIF, Whistler, British Columbia, February 2005. Symposium: Advances in the Management of Craniomaxillofacial Surgery: Controversies in Craniomaxillofacial Surgery 1.) Case Discussion-Enophthalmos Correction 2.) Case Discussion - Distraction in Hemifacial Microsomia 3) Case Discussion - Use of Alloplastic Materials in Craniofacial Surgery.

**Phillips JH:** PSEF/Fresh Start Aesthetic Facial Reconstruction in Adults and Children Symposium, Tucson, Arizona, February 2005. Treatment of Orthognathic Surgery in Juvenile Rheumatoid Arthritis Patients - Dr. David Leshem presenting.

**Zuker RM:** Concurrent Instructional Course: American Society for Reconstructive Microsurgery, Fajardo, Puerto Rico, January 2005. Pediatric microsurgery.

**Zuker RM:** Instructional Course: American Society of Plastic Surgery/Plastic Surgery Educational Foundation, Philadelphia, Pennsylvania, October 2004. Complex reconstruction of the pediatric hand.

**Zuker R.M:** Invited Lecturer: 6th International Moebius Syndrome Conference, Arlington, Texas, July 2004. Smile surgery, facial animation.

**Zuker RM:** Invited Lecturer: Plastic Surgery Education Foundation/American Society of Maxillofacial Surgeons Symposium - Bony, Alloplastic and Autogenous Restoration to the Midface, Philadelphia, Pennsylvania, October 2004. Facial paralysis reconstruction.

**Zuker RM:** Invited Participant: Meyer Ospedale Pediatrico Azienda Ospedaliera - Univeritaria, Florence, Italy, June 2005. Multi-disciplinary conference on the management of sirenomelia.

**Zuker RM:** Invited Speaker: Associazione Italiana Sindrome di Moebius, 3<sup>rd</sup> Convegno, Internazionale Sulla Sindrome Di Moebius, Piacenza, Italy, May 2005. Smile Surgery.

**Zuker RM:** Invited Speaker: Israeli Microsurgery Society Meeting, Tel Aviv, Israel, April 2005. 1) New frontiers in pediatric microsurgery. 2) Problems encountered in microsurgery.

**Zuker RM:** Visiting Professor: Birmingham Children's Hospital, Birmingham, England, April 2005. Facial paralysis in children with implications for adults.

**Zuker RM:** Visiting Professor: Ichilov Medical Center, Tel Aviv, Israel, April 2005. 1) Pediatric microsurgery. 2) Facial paralysis in children with implications for adults.

**Zuker RM:** Plastic Surgery Educational Foundation - Aesthetic Facial Reconstruction in Adults and Children Symposium, Tucson, Arizona, February 2005. Facial palsy in children and implications for adults.

## Research And Investigations

*Senior Investigator's Name Appears in Italics*

Apoptosis in cultured calvarial cells following radiation. *r Forrest Ct, A. 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. *C.R. Forrest, A.M. Gevorgyan: 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).*

Radiation induced craniofacial bone growth inhibition: In vitro investigation of the molecular mechanisms and cytoprotection. *Gevorgyan A, Forrest CR: American Society of Maxillofacial Surgeons (\$11,000 2004 - 2005).*

Reconstruction of CF Sweat gland with a Noval Vector. *Hu J, Pang CY: CIHR (Seed Grant) (\$50,000 2004 - 2005).*

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

## Honours Received

**Clarke HM:** Supervisor for Dr. A. Schwentker - Outstanding nerve presentations, American Society for Peripheral Nerve, Fajardo, Puerto Rico, January 2005.

**Forrest CR:** Supervisor: For Dr. Artur M. Gevorgyan - 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, August 2004.



## **DIVISION OF UROLOGY**

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

**Dr. L.L. Burrows - Associate Professor**

**Dr. W. Farhat - Assistant Professor**

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

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

## **Publications**

**Afshar K, McLorie G, Papanikolaou F, Malek R, Harvey E, Pippi Salle J.L, Bagli DJ, Khoury AE, Farhat AE:** Outcome of Small Residual Stone Fragments Following Shockwave lithotripsy in Children. *Journal of Urology*: October 2004: 172 (4-2): pp 1600-1603.

**Afshar K, Papanikolaou F, Malek R, Bagli D, Pippi Salle JL, Khoury AE:** Vesico-Ureteral Reflux in Complete Ureteral Duplication: Conservative or Surgical Management? *Journal of Urology*: May 2005: 173: pp 1725-1727.

**Cartwright L, Khoury AE:** Intersex Conditions: Beware of medical and psychosocial consequences. *Parkhurst Exchange*: December 2004: 12 (12): pp 25.

**Chan C, Burrows LL, Deber CM:** Alginate as an auxilliary bacterial membrane: Binding of membrane-active peptides by polysaccharides. *Journal of Peptide Research*: March 2005: 65: pp 343-351.

**Chan C, Burrows LL, Deber CM:** Helix induction in antimicrobial peptides by alginate in biofilms. *Journal of Biological Chemistry*: September 2004: 279: pp 38749-3875.

**Cheng Hai-Ling M, Chen J, Babyn P, Farhat W:** Dynamic GD-DTPA Enhanced MRI as a Surrogate Marker of Angiogenesis in Tissue-Engineered Bladder Constructs: A Feasibility Study in Rabbits. *Journal of Magnetic Resonance Imaging*: May 2005: 21 (4): pp 415-23.

**Chiang P, Habash M, Burrows LL:** Disparate subcellular localization patterns of *Pseudomonas aeruginosa* type IV pilus ATPases involved in twitching motility. *Journal of Bacteriology* 187829-83911NO6: March 2005: 187: pp 829-839.

**Chin-Peuckert L, Rennick JE, Jednak, R, Capolicchio JP, Pippi Salle JL:** Should warm infusion solution be used for urodynamic studies in children? *Journal of Urology*: October 2004: 172 (4): pp 1657-61.

**Cook A, Farhat W, Cartwright L, Khoury AE, Pippi Salle JL:** Simplified Monsplasty: A new technique to improve cosmesis in females with the exstrophy-epispadias complex. *Journal of Urology*: June 2005: 173 (6): pp 2117-2120.

**Farhat W, Afshar K, Papanikolaou F, Austin R, Khoury AE, Bagli AE:** Retroperitoneal-Assisted Laparoscopic Pyeloplasty in children: Initial Experience. *Journal of Endourology*: November 2004: 18(9): pp 879-882.

**Farhat W, Khoury AE:** Constipation and urinary tract infection. In: *Urologia Pediatrica (Pediatric Urology)* (Macedo Junior A, Vilar C. Lima S, Streit D, Barroso Junior U, eds). ROCA, Sao Paulo, Brazil: 2004: pp 275-284.

**Farhat W:** Early Intervention of CAH Surgical Management. *Journal of Pediatric Adolescent Gynecology*: February 2005: 18(1): pp 66-69.

**Metcalf PD, Bagli DJ:** Prepubertal Testicular Tumors. In: *Urologic Oncology* (Richie JP, D'Amico AV, eds). Elsevier Saunders, Philadelphia, PA: 2005: pp 780-785.

**Rutka JT, Souweidane M, ter Brugge K, Armstrong D, Zuker R, Clarke H, Creighton R, McLeod E, Khoury AE, Hoffman HJ:** Separation of Craniopagus Twins in the Era of Modern Neuroimaging, Interventional Neuroradiology, and Frameless Stereotaxy. *Childs Nervous System*: August 2004: 20(8-9): pp 587-92.

**Somers G, Teshima I, Nasr A, Cook A, Khoury AE, Taylor GP:** Intrascrotal lipoblastoma with a complex karyotype; a case report and review of the literature. *Archives of Pathology and Laboratory Medicine*: July 2004: 128 (7): pp 797-800.

**Zorn K, Spiess, P, Jednak R, Pippi Salle JL:** Mucocolpos Associated with Bladder Exstrophy- a Case Report. *Canadian Journal of Urology*: April 2005: 12(2): pp 2614-5.

## Invited Visits to Other Hospitals/Universities

**Farhat W:** Lebanese Urology Congress, Beirut, Lebanon, September 2004. 1) Laparoscopy in Pediatric Urology. 2) Lower Urinary tract Reconstruction in Preparation for Renal Transplantation.

**Farhat W:** Wayne State University, Detroit, Michigan, January 2005. 1) Laparoscopy in Pediatric Urology. 2) Why Tissue Engineered Bladders are not yet Available for Clinical Use.

**Pippi Salle J.L:** Department of Urology/University of Laval, Quebec City, Quebec, September 2004. 1) Alternatives for Bladder Augmentation. 2) Intersex. C) Management of Antenatal Hydronephrosis. 3) Performed demonstrative surgery on two Hypospadias Patients.

**Pippi Salle J.L:** Urological Management of Myelomeningocele From Birth to Adulthood ICS 2004 Workshop, Paris, France, August 2004. 1) Case 1 With focus on urological management of the newborn and the first years of life. 2) Case Discussion (4) with focus on the surgical management of the outlet. 3) Severe Perineal Hypospadias. 4) Role of Vesicostomy in the Management of Child Neurogenic Bladder. 5) The Pippi Salle Procedure.

**Pippi Salle J.L:** C.H. Ibn. Rochd. Hopital d'Enfants, Casablanca, Morocco, May 2005. Live Surgery: 1) Construction of uretero-colonic pouch (Mansoura Pouch). 2) Omphaloplasty: A novel technique to construct a umbilicus. 3) Re-do Epispadias and Bladder Neck Reconstruction. 4) Management of Antenatal Hydronephrosis. 5) Urethral Duplication: How to Manage? 6) What's New in Pediatric Urology? Live Surgery: Construction of Continent Diversion (Penn Pouch).

**Pippi Salle J.L:** American Academy of Pediatrics, San Francisco, California, October 2004. Moderator for Session entitled "Reconstruction".

**Pippi Salle J.L:** 8th Annual Course on Management of Hypospadias, Istanbul, Turkey, November 2004. 1) The Pippi Salle Procedure to Correct Urinary Incontinence; When and How to Perform it. 2) Video Course on Hypospadias Surgery which involved presenting 5 surgical cases. 3) Technical Details to Achieve Optimal Result in Hypospadias Repair. 4) Pre op Evaluation of patients with Hypospadias: Relevant Points.

**Pippi Salle J.L:** American Urological Association, San Antonio, Texas, May 2005. Urological and Fecal Management of Myelomeningocele (faculty member of the course).

**Khoury AE:** Quebec Urological Association, Montreal, QC, November 2004. A) Current Challenges and Advances in Achieving a Tissue Engineered Bladder. B) Panelist: Update on the Current Problems in Pediatric Urology.

**Khoury AE:** Sao Paulo State Urological Society, Sao Paulo, Brazil, May 2005. A) How to Avoid and Treat Complications in Hypospadias. B) Impact of Prenatal Diagnostic Pediatric Urology. C) In Utero Surgery. D) Re-do Pyeloplasty: Technical Pointers. E) Surgical Treatment for Neurogenic Bladder Dysfunction. F) VUR: is endoscopic treatment suitable for all patients. G) Case Discussions.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

Acellular Matrix Scaffolds with Bioactive Peptides for Bladder Augmentation. *Woodhouse K, Bagli D, Ringutte M: CIHR (\$87,000 2003 - 2005).*

Defeating the bacterial "force-field". *Howell L, Deber C, Burrows LL: PENCE (Protein Engineering Network of Centres of Excellence (\$33,000 2004 - 2005).*

Development of Biologically Responsive Drug Polymers. *Santerre P, Ho Jeannette, Khoury AE: NSERC (\$90,000 2003 - 2004).*

Influence of cell surface mutations on Pseudomonas aeruginosa biofilm formation. *Burrows L: Canadian Institutes of Health Research (\$247,696 2001 - 2004).*

Interactive multi-media CD-Rom for teaching operative pediatric urology. *Pippi Salle JL, Khoury AE: University of Toronto Information Technology Courseware Development Fund Competition (\$16,795 2004 - 2005).*

Investigations of bacterial biofilm formation and development of anti-biofilm strategies. *Burrows LL: Government of Ontario Premier's Research Excellence Award (\$150,000 2003 - 2008).*

Peptidoglycan synthesis and bacterial biofilm formation. *Burrows LL: CIHR (Institute of Infection and Immunity) Grant #NIP 67467 (\$71,800 2004 - 2005).*

Porcine Partial Bladder Substitution Using Autologous Cell Seeded and Fibrin Glue Bladder Acellular Matrix Construct. *Farhat, W: Canadian Urological Association Scharlarship Foundation (\$40,000 2003 - 2004).*

“Proteins involved in type IV pilus biogenesis in *Pseudomonas aeruginosa*”. *Howell, L, Burrows LL: PENCE (Canadian Protein Engineering Network of Centres of Excellence (\$40,000 2003 - 2004).*

Rod and Reel: Investigation of *Pseudomonas aeruginosa* type IV pilus assembly and function. *Burrows LL: Canadian Institute of Health Research (\$394,079 2004 - 2007).*

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).*

Targeted Small Molecular Therapeutics for Cystic Fibrosis. *Bear C, Burrows LL, Deber CM, Durie P, Lingwood C, Rotin D, Yeger H: Canadian Cystic Fibrosis Foundation (BREATHE Program) (\$1,440,000 2004 - 2007).*

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. *Walid F: The Hospital for Sick Children Foundation and the Institute of Human Development, child and Your Health - CIHR (\$130,000 2004 - 2006).*

## Honours Received

**Burrows LL:** 2004 Elsie Winifred Crann Memorial Trust Award in Medical Research from the University of Toronto, November 2004.

**Farhat W:** Society of Government Service Urologists/Kimbrough Seminar 2005/1st place poster awarded to Lisa Cartwright for research entitled “Tissue Engineered Bladder Neovascularization is enhanced with VEGF and Quantifiable with Dynamic contrast-Enhanced MRI” (Walid Farhat PI), January 2005.

**Zane Cohen** - Surgeon-in-Chief & Langer Chair



## ***Heads of Divisions***

**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 to include colorectal, breast sarcoma and retroperitoneal tumours and endocrine surgery including thyroid disease. Within Orthopaedics, Orthopaedics Oncology and Reconstructive Orthopaedics are the main foci. Within Urology the development of the Murray Koffler Urologic Wellness Centre has 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 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. Other members of the division who do part of the work at Mount Sinai Hospital and whose major appointments are at the University Health Network are Drs. Jaime Escallon, Wey Leong, Ian McGilvray and David McCready. Dr. Steve Gallinger does the majority of his Hepatobiliary clinical work at the University Health Network but maintains his entire basic research laboratory at the Samuel Lunenfeld Research Institute.

Drs. Alexandra Easson, Steve Gallinger, 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 the American Society of Colon and Rectal Surgeons Grants. In addition, the following have received new grants in the past year - Andrea McCart from the University of Toronto-Faculty of Medicine, Paul Johnson and Robin McLeod from PSI, Steve Gallinger from Ontario Cancer Research Network and the Westgarten Foundation. Robert Gryfe is the recipient of the Charles Hollenberg Translational Research Senior Fellow/Clinician Scientist Award from Eli Lilly Cancer Care Ontario and CIHR.



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

Dr. Irving Rosen is on the Medical Advisory Board of Survivors of Thyroid Cancer and is Co-Editor of Thyroid Cancer. Steve Gallinger is the Chairman of the Clinical Panel of the Israel Cancer Research Fund and is on the Editorial Board of Current Surgery Clinical Gastroenterology and Hepatology. He is also in the Executive Committee of NCIC Clinical Trials Group - Gastrointestinal Diseases. Helen MacRae is Chair of the Continuing Professional Development Committee of the Canadian Association of General Surgeons 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 2004.

### **The following awards were received:**

Dr. Irving Rosen - the Recipient of the Named Lectureship - the Rasch-Rosen Lectureship in Endocrine Surgery. Dr. Norman Thompson was the inaugural lecturer in May 2003. Irving Rosen gave the first Annual Walter Patching Lecture. Dr. Steven Gallinger received the Lister Prize from the Department of Surgery in 2003. Dr. Zane Cohen received the Mentor Award from the American Society of Colon and Rectal Surgeons and was the inaugural Chairholder of the Bernard and Ryna Langer endowed chair in the Division of General Surgery. Dr. Robin McLeod was made an honorary fellow of the Royal College of Surgeons of Edinburgh and received the May Cohen Female Mentor of the Year Award from the Canadian Medical Association. Dr. Stephen Kelly whose supervisor was Robin McLeod, won the Best Poster Award at the Canadian Surgery Forum.

## **Orthopaedic Surgery**

### **Honours and Distinctions**

Dr. David Backstein was appointed as the Director of the Surgical Clerkship Program for the University of Toronto and he also received the John Insoll Travelling Fellowship. Dr. Bob Bell was appointed as Chair of the Clinical Council of Cancer Care Ontario and the Regional Vice President for Cancer Care Ontario. He was appointed as the Head of the Orthopaedic Oncology Section of the Journal of Surgical Oncology. Dr. Erin Boynton received a Samson Award in recognition of her research.

### **Research**

New grants received were by Dr. David Backstein who received three grants from PSI, Dean's Excellence Fund and Zimmer Canada. His grant totalled closed to \$49,000. Drs. Bob Bell and Jay Wunder received the Canadian Institutes of Health Research Grant from 2001-2005. Dr. Erin Boynton received an Arthritis Society Grant and Dr. Peter Ferguson a Dean's Fund New Staff Grant and is the Co-Project Leader for a Network of Centres of Excellence Funding of AFM Net (advanced food and materials network). Dr. Allan Gross received a CIHR grant as did Jay Wunder. Overall, there were over 34 peer-reviewed publications from the Division of Orthopaedics Surgery at Mount Sinai Hospital.

### **Courses Held**

There were two courses held this academic year, one on Minimally Invasive Surgery on the Hip and the other on Revision Arthroplasty of the Hip.

### **Other Achievements**

Bob Bell was the Visiting Lecturer on five occasions, Allan Gross on 12 occasions and Jay Wunder on three occasions. There were 18 international visiting observer clinicalships to the division.

## **Urology**

Significant changes have occurred within the Division of Urology over the past year. All of the clinical activities are now housed in the Murray Koffler Urologic Wellness Centre at Mount Sinai Hospital. This is an 8,400 square foot facility which became operational in January of 2003. A further donation from the Koffler Family has allowed us to expand the basic science research capacity. A total of 8,500 square feet of laboratory space is planned for an area adjacent to the clinical facility. This space should be completed in the 2004-2005 academic year. The clinical programs include male infertility. This is a nationally recognized collaborative clinical program, with pathology and laboratory medicine, radiology and reproductive biology. Trainees have included Urology residents as well as clinical fellows, the first of whom was trained in the centre and returned to an academic urology position, at the University of Rochester.

The Murray Koffler Urologic Wellness Centre is a centre of excellence for the Management of Sexual Dysfunction. This program is directed by Dr. Martin Buckspan and involved collaboration with registered sex counsellors offering the potential for a complete investigation and management of this condition, in one centre.

Prostatitis is a new clinical program and a program in prostate cancer which is in evolution. The goal will be to develop expertise in the areas of screening for cancer in the prostate, reduction of the risk to develop prostate cancer and the strategies to reduce the progression of the disease. This program is in collaboration with the Divisions of Urology at the University Health Network, Sunnybrook and Women's College Health Science Centre and Mount Sinai Hospital, as well as the Department of Pathology and Lab Medicine.

### **Research Activities**

Most of the research activities are in the area of male infertility. There are four ongoing peer-funded studies on Genetics of Male Infertility. These are supported by grants from NIH, PSI and CIHR. A total of eight papers from the basic science research area and six further clinical research papers, have been either published or submitted to peer-reviewed journals in this past year.

## **DIVISION OF GENERAL SURGERY**

**Dr. Z. Cohen - Professor**

**Dr. A. Easson - Lecturer**

**Dr. M. 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**

**Blackstein ME, Dube P, Fletcher JA, Keller OR, Knowling M, Letourneau R, Morris D, Riddell R, Rorke S, Swallow CJ:** Gastrointestinal stromal tumors: Etiology, pathology and clinical management. *Canadian Journal of Gastroenterology*: November 2004: 18 Suppl: pp 3B-8B.

**Brooks-Wilson AR, Kaurah P, Suriano G, Leach S, Senz J, Grehan N, Butterfield YS, Jeyes J, Schinas J, Bacani J, Kelsey M, Ferreira P, MacGillivray B, MacLeod P, Micek M, Ford J, Foulkes W, Australie K, Greenberg C, LaPointe M, Gilpin C, Nikkel S, Gilchrist D, Hughes R, Jackson CE, Monaghan KG, Oliveira MJ, Seruca R, Gallinger S, Caldas C, Huntsman D:** Germline E-cadherin mutations in hereditary diffuse gastric cancer: assessment of 42 new families and review of genetic screening criteria. *Journal of Medical Genetics*: July 2004: 41 (7): pp 508-517.

**Cady B, Easson AM, Aboulafia AJ, Ferson PF:** Part 1: Surgical palliation of advanced illness - what's new, what's helpful. *Journal of American College of Surgeons* 2005: 200(1): pp 115-7.

**Cady B, Barker F, Easson A, Aboulafia AJ, Ferson PF, Miner T, Morgentaler A:** Part 3: Surgical palliation of advanced illness: What's new, what's helpful. *Journal of American College of Surgeons* 2005: 200(3): pp 457-66.

**Casey G, Lindor NM, Papadopoulos N, Thibodeau SN, Moskow J, Steelman S, Buzin CH, Sommer SS, Collins CE, Hutz M, Aronson M, Gallinger S, Barker MA, Young J.P, Jass JR, Hopper JL, Diep A, Bapat B, Salem M, Seminara D, Haile R, Colon Cancer Family Registry:** Conversion analysis for mutation detection in MLH1 and MSH2 patients with colorectal cancer. *JAMA*: February 2005: 293(7): pp 799-809.

**Chetty R, Salahshor S, Bapat B, Berk T, Croitoru M, Gallinger S:** Intraductal papillary mucinous neoplasm of pancreas in a patient with attenuated familial adenomatous polyposis. *Journal of Clinical Pathology*: January 2005: 58: pp 97-101.

**Cohen Z:** Familial Adenomatous Polypsis. In: *Current Therapy in Colorectal Surgery* (Fazio, Church and Delaney, eds). Elsevier and Nosby, Philadelphia: 2004: pp 349-354.

**Croitoru ME, Cleary SP, Di Nicola N, Manno M, Selander T, Aronson M, Redston M, Cotterchio M, Knight J, Gryfe R, Gallinger S:** The association between biallelic and monoallelic germline MYH mutations and colorectal cancer risk. *Journal of the National Cancer Institute*: November 2004: 96(21): pp 1631-1634.

**Dixon E, Jr CM, Sahajpal A, Cattral MS, Grant DR, Taylor BR, Langer B, Gallinger S, Greig PD:** Transduodenal resection of peri-ampullary lesions. *World Journal of Surgery*: April 2005.

**Dixon E, Vollmer CM, Sahajpal A, Cattral M, Grant D, Doig C, Hemming A, Taylor B, Langer B, Greig P, Gallinger S:** A 12 year cohort study at a North American Center: adoption of an aggressive surgical approach leads to improved survival in patients with gallbladder cancer. *Annals of Surgical Oncology*: February 2005: 241(3): pp 385-394.

**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*: April 2005.

- Easson AM, McCready DR:** The management of local recurrence of breast cancer. *Expert Review in Anticancer Therapy* 2004; 4(2): pp 219-226.
- Easson AM. Critical Care. Feb 2005:** Should research be part of advance care planning. *Epub.* 2004; 9(1): pp 10-11.
- Furlan JC, Bedard YC, Rosen IB:** Role of fine needle aspiration biopsy (FNAB) and frozen section in the management of papillary thyroid carcinoma subtypes. *World Journal of Surgery*: September 2004; 28 (9): pp 880-885.
- Furlan JC, Bedard YC, Rosen IB:** Single versus sequential fine needle aspiration biopsy (FNAB) in management of thyroid nodular disease. *Canadian Journal of Surgery*: February 2005; 48 (1): pp 12-18.
- Gryfe R, Gallinger S:** Germline PMS2 mutations: one hit or two? *Gastroenterology*: May 2005; 128(5): pp 1506-1509.
- Gryfe, R, Gallinger S:** PMS2 mutations - one hit or two? *Gastroenterology*: January 2005; 128: pp 1506-9.
- Haddad R, Ogilvie RT, Croitoru M, Muniz V, Gryfe R, Pollet A, Shanmugathasan P, Fitzgerald T, Law CHL, Hanna SS, Jothy S, Redston M, Gallinger S, Smith AJ:** Microsatellite instability as a prognostic factor in resected colorectal cancer liver metastases. *Annals of Surgical Oncology*: October 2004; 11(11): pp 977-982.
- Jaskolka JD, Asch MR, Kachura JR, Ho CS, Ossip M, Wong F, Sherman M, Grant DR, Greig PD, Gallinger S:** Needle tract seeding after radiofrequency ablation of hepatic tumors. *J Vasc Interv Radiol*: April 2005; 16(40): pp 485-491.
- Johnson P, Richard CS, Spencer LM, Ravid A, Hannah M, Cohen Z, McLeod RS:** Female infertility following ileal pouch anal anastomosis for ulcerative colitis. *Diseases of the Colon and Rectum*: July 2004; 47: pp 1119-26.
- Kennedy ED, Urbach DR, Krahn M, Cohen Z, Steinhart AH, McLeod RS:** Azathioprine or ileocolic resection for steroid-dependent termin ileal Crohn's disease? A Markov analysis. *Diseases of the Colon and Rectum*: December 2004; 47: pp 2120-30.
- Kim R, Sakamoto S, Haider M, Molinari M, Gallinger S, McGilvray I, Greig P, Grant D, Cattral M.S:** Role of magnetic resonance imaging in assessing biliary anatomy in right lobe living donors. *Transplantation*: May 2005; 79(10): pp 1417-1421.
- Kim RD, Sakamoto S, Haider MA, Molinari M, Gallinger S, McGilvray ID, Greig PD, Grant DR, Cattral MS:** **Role of Magnetic Resonance Cholangiography in Assessing Biliary Anatomy in Right Lobe Living Donors.** *Transplantation*: May 2005; 79: pp 1417-1421.
- Lindor NM, Rabe K, Petersen GM, Haile R, Casey G, Baron J, Gallinger S, Bapat B, Aronson M, Hopper J, Jass J, LeMarchand L, Grove J, Potter J, Newcomb P, Terdiman JP, Conrad P, Moslein G, Goldberg R, Ziogas A, Anton-Culver H, de Andrade M, Siegmund K, Thibodeau SN, Boardman LA, Seminara D:** Lower cancer incidence in Amsterdam-I criteria families without mismatch repair deficiency: familial colorectal cancer type X. *JAMA*: April 2005; 293(16): pp 1979-1985.
- McMullen TP, Easson AM, Cohen Z, Swallow CJ:** The investigation of primary rectal cancer by surgeons: current pattern of practice. *Canadian Journal of Surgery*: January 2005; 48: pp 19-26.
- Ramji F, Cotterchio M, Manno M, Rabeneck L, Gallinger S:** Association between subject factors and colorectal cancer screening participation in Ontario, Canada. *Cancer Detection and Prevention*: May 2005: e pub:
- Ringash J, Khaksart SJ, Oza A, Couture J, Japp B, Moore M, Siu LL, Hedley D, Swallow C, Wong S, Cummings B, Kim J, Wong R, Brierley J:** Post-operative radiochemotherapy for gastric cancer: adoption and adaptation. *Clinical Oncology*: January 2005; 17: pp 91-95.
- Rosen IB:** Thyroid Microcarcinoma (editorial). *Thyroid Canada*: February 2005:
- Swallow CJ, Partridge EA, Macmillan JC, Tajirian T, Di Guglielmo GM, Hay K, Szweras M, Jahnen-Dechent W, Wrana JL, Redston M, Gallinger S, Dennis JW:** Alpha2HS-glycoprotein, an antagonist of transforming growth factor beta in vivo, inhibits intestinal tumor progression. *Cancer Research*: September 2004; 64(18): pp 6402-6409.
- Swallow CJ, Ko MA, Siddiqui NU, Hudson JW, Dennis JW:** Sak/Plk4 and mitotic fidelity. *Oncogene*: February 2005; 24: pp 306-12.

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

**Easson AM:** American College of Surgeons (Symposium), Boston, MA, Apr 2004. Successful surgical palliation: How do we define it? How do we measure it?

**Easson AM:** American College of Surgeons (Symposium), New Orleans, LA, Oct 2004. Outcomes beyond survival in surgical care: What the patient doesn't and what the surgeon should know.

**Easson AM:** University of Toronto, Mount Tremblant, Feb 2005. Update on palliative surgery: (Course) Advance learning in palliative medicine.

**Easson AM:** University of Toronto, Toronto, Ontario, Apr 2005. Update in General Surgery. The Meaning of Micrometastases.

**Easson AM:** Department of Family and Community Medicine, University of Toronto (Symposium), Toronto, Ontario, May 2005. Standardized Colleagues: An innovative teaching tool to improve interprofessional relationships.

**Easson AM:** Centre for Faculty Development, University of Toronto (Symposium), Toronto, Ontario, Jun 2005. Creating an innovative scholarly educational project: Dean's Excellence Fund Workshop.

**Easson AM:** ASCO, Orlando, Florida, May 2005. Change in symptoms after paracentesis for symptomatic malignant ascites.

**Gallinger S:** Frontiers in Cancer Prevention Research, Seattle, Washington, October 2004. Aggressive Management of Early Neoplasms to Prevent Gastrointestinal Cancer.

**Gallinger S:** 5th Annual Behind the Scenes Donor Appreciation Event. Princess Margaret Hospital, Toronto, Ontario, June 2005. An Ounce of prevention is Worth a Pound of Cure: The Role of Prevention and Screening in the Fight Against Cancer.

**Gallinger S:** Congress of the American Hepato-Pancreato-Biliary Association, Fort lauderdale, Florida, April 2005. Laparoscopic palliation of pancreatic cancer- Discussant.

**Gallinger S:** 5th Annual Perspectives in Colorectal Cancer, Chicago, Illinois, September 2004. Molecular characteristics associated with outcome of adjuvant therapy.

**Gallinger S:** American College of Surgeons, New Orleans, Louisiana, October 2004. Post-Laparoscopic Biliary Strictures.

**Gallinger S:** 9th Annual Sunnybrook GUT Club Retreat, Mckellar, Ontario, June 2005. Practical Genetics.

**MacRae HM:** 1st International Meeting of the Colombian Society of Colon and Rectal Surgeons, Bogota, Colombia, November 2004. 1) Diverticular Disease State of the Art. 2) Laparoscopic Surgery for Inflammatory Bowel Disease. 3) Re: Operative Pelvic Pouch Surgery. 4) Teaching Laparoscopic Colon and Rectal Surgery. 5) Why Every Colon and Rectal Case Should Be Done Laparoscopically.

**MacRae HM:** American College of Surgeons 90th Annual Clinical Congress, New Orleans, Louisiana, October 2004. Implementation of New Technology in Surgery.

**MacRae HM:** Baystate Medical Centre, Springfield, Massachusetts, November 2004. Surgical Skills Training Strategies: What Works? Training Strategies at the University of Toronto.

**Rosen IB:** Co-meeting of Thyroid Foundation of Canada and Canadian Thyroid Cancer Support Group (Thy'vors) Inc., Ottawa, Ontario, May 2005. Wally Patching Lecture: "Thyroid Cancer Recurrence".

**Swallow CJ:** Gastrointestinal Stromal Tumor Educator Program, Toronto, Ontario, November 2004. Adjuvant and neo-adjuvant Trials.

**Swallow CJ:** Surgical Oncology Network Symposium, Toronto, Ontario, October 2004. Approach to the Retroperitoneal Mass. Sarcoma session - Chair.

**Swallow CJ:** Canadian Gastrointestinal Stromal Tumor Consensus Surgical Subcommittee Meeting, Toronto, Ontario, April 2005. 1) Current status of surgical management and neoadjuvant therapy. 2) Gastrointestinal Stromal Tumor. 3) Surgical Representative.

**Swallow CJ:** American Society of Clinical Oncology Annual Meeting, Orlando, Florida, May 2005. Sarcoma Poster Discussion. Discussant.

**Swallow CJ:** Society of Surgical Oncology Annual Cancer Symposium, Atlanta, Georgia, March 2005. 1) Squamous Dysplasia and CIS of the Perianal Region. 2) Surgical Management of Dysplasia - Chair.

**Swallow CJ:** Ontario Gastrointestinal Multidisciplinary Oncology Conference, Toronto, Ontario, November 2004. Surgical Oncology Debate "Be it resolved that there is no role for curative surgery in the recurrence of rectal cancer." Opposed.



## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A novel pancreatic cancer tumor suppressor candidate gene. *Gallinger S: The Lustgarten Foundation for Pancreatic Cancer Research* (\$98,740 2004).

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 population based study of the outcomes of transanal resection for rectal cancer. *Law C, Klar N, Stern H, Swallow C, Smith A, Wright F: National Cancer Institute of Canada* (\$172,767 2003 - 2005).

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 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).

A Registry-based observational study assessing clinical outcomes in Familial Adenomatous Polyposis in patients receiving Celecoxib compared to control patients. Protocol: NQ 4-00-02-012. *Gallinger, S: Pfizer Inc.* (\$67,500 2005 - 2007).

A synthetic lethal approach to cancer therapy. *Durocher D: Ontario Cancer Research Network* (\$448,092 2002 - 2005).

Assessment of the relief of symptoms after the drainage of ascites: an evaluation of four questionnaires. *Easson, AM, Bezjak A, Ross R: Dean's Fund New Staff Award* (\$10,000 2003 - 2004).

Characterizing mutator phenotype pathways in human colorectal cancer. *R Gryfe: Canadian Institutes of Health Research, Cancer Care Ontario, eli Lilly Canada* (\$225,000 2002 - 2005).

Disclosure of surgical error, death and dying, challenging situations: teaching and evaluating communication skills in a surgical education program. *Easson AM, Hawryluck L: Dean's Excellence Fund for Medical Education* (\$20,000 2003 - 2004).

Ductoscopy of breast diseases. *Leong WL, Easso 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).

Epidural analgesia use in colorectal cancer surgery : Trends over time and factors associated with utilization. *McLeod RS, Johnson P: Physicians' Services Incorporated* (\$15,000 2004 - 2005).

Evaluation of vaccinia virus oncolysis in glioblastoma. *J. Andrea McCart: 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 (an unrestricted educational grant)* (\$25,000 2004 - 2005).

Fiberoptic ductoscopy of the breast for the management of nipple discharge. *Easson AM, Leong W, McCready D: Den Haag Breast Cancer Foundation* (\$126,000 2003 - 2004).

Improving care and research in pancreas cancer in Ontario-A population-based study. *Gallinger S., Cotterchio M, Holowaty E, Moore M, Urbach D: Ontario Cancer Research Network* (\$370,000 2003 - 2006).

Mammary ductoscopy imaging and spectroscopy, an exploratory study. *Leong WL, Easson AM, McCready DR, Done S, Uouplik A, Yang V, Vitkin A, Wilson B: Ontario Researc and Development Challenge Fund* (\$8,730 2004 - 2005).

Multi-Centre Randomized Controlled Trial to Compare Stapled Functional End-to-End Anastomosis With Sutured End-to-End Anastomosis Following Resection for Primary or Recurrent Ileocolonic Crohn's Disease. *McLeod RS, Wolff BG, Ross S, Reznick R, Phang T, Buie D, Silverman R, Plewes A, Taylor B, Richard C, Belliveau P, Gregoire R, MacDonald H, Vasilevsky C, Schoetz D, Strong S, Fleshman J: Canadian Institutes of Health Research* (\$345,000 2001 - 2004).

Ontario Registry for studies of familial colorectal cancer. Renewal. *Gallinger S., Andrulis I, Bapat B, Knight J and 25 others: National Institutes of Health (NCIC) (\$10,700,000 2002 - 2007).*

Pancreatic cancer linkage consortium. *G.M. Petersen, Gallinger, S. and 27 others: National Institutes of Health (\$7,000,000 2002 - 2007).*

Polo kinases in mitosis and cancer progression. *Dennis J, Swallow C: National Cancer Institute of Canada (\$411,000 2002 - 2005).*

Preclinical assessment of vaccinia virus for cancer gene therapy and functional tumour imaging. *McCart JA, Reilly R: Ontario Cancer Research Network (\$451,538 2002 - 2005).*

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

Role of the mitotic regulator Sak in colorectal carcinogenesis. *Swallow C: Body 'N Soul Colorectal Cancer Research Fund (\$20,000 2003 - 2006).*

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 I, Edwards A, Grant D, Heathcote J, Gallinger S: Ontario Cancer Research Network (\$689,000 2004 - 2007).*

Tumor microsatellite instability as a molecular prognostic marker in colorectal cancer. *Gallinger, S: Premier's Research Excellence Award (\$100,000 2000 - 2005).*

## **Honours Received**

**Easson AM:** Associated Medical Services, Inc. (AMS) Educational Fellowship in Care at End of Life (\$25,000.00 per year renewable to five years). 2004

**Easson AM:** An Intervention to Improve Do-Not-Resuscitate (DNR) Orders in General Surgery. Kapala M, Hawryluck L, Kawun U, Rotstein L. Best poster presentation: Annual Assembly, Div. of General Surgery, University of Toronto. 2005

**Gallinger S:** 4th Annual Charles H. Tator Surgeon-Scientist Mentoring Award, Department of Surgery, May 2005.

**Gallinger S:** James IV Travelling Fellowship, Department of Surgery, December 2004.

**McCart JA:** The Saul Highman Memorial Award from the Leukemia and Lymphoma Society of Canada, June 2005.

**McLeod RS:** Best Clinical Research Paper Presentation, Canadian Surgical Forum 2004, September 2004.

**McLeod RS:** Canadian Medical Association, The May Cohen Award for Women Mentors, August 2004.

**Rosen IB:** Editor, Thyroid Canada, January 2005.

**Rosen IB:** Rosen-Rasch Lectureship in Endocrine Surgery, Department of Surgery, University of Toronto, Mount Sinai Hospital (Dr. M. Gagner, guest lecturer), May 2005.

## **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.L. MacIntosh - Associate Professor**

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

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

## **Publications**

**Akudugu JM, Bell RS, Catton C, Davis AM, O'Sullivan B, Waldron J, Wunder JS, Hill RP:** Clonogenic survival and cytokinesis-blocked binucleation of skin, fibroblasts and normal tissue complications in soft tissue sarcoma patients treated with preoperative radiotherapy. *Radiother Oncol*: July 2004; 72(1): pp 103-12.

**Backstein D, Agnidis Z, Sadhu R, MacRae H:** Effectiveness of Repeated Video Feedback in the Acquisition of a Surgical Technical Skill. *Canadian Journal of Surgery*: June 2005; 48: pp 195-200.

**Chen W, Cooper TK, Zahnow CA, Overholtzer M, Zhao Z, Ladanyi M, Karp JE, Gokgoz N, Wunder JS, Andrulis IL, Levine AJ, Mankowski JL, Baylin SB:** Epigenetic and genetic loss of Hic1 function accentuates the role of p53 in tumourigenesis. *Cancer Cell*: October 2004; 2004/10/01: pp 387-98.

**Clarkson P, Ferguson PC:** Primary Multidisciplinary Management of Extremity Soft-Tissue Sarcomas. *Current Treatment Options in Oncology*: December 2004; 5: pp 451-462.

**Davis AM, Damani M, White LM, Wunder JS, Griffin AM, Bell RS:** Periprosthetic bone remodeling around a prosthesis for distal femoral tumours: Longitudinal follow-up. *Journal of Arthroplasty*: March 2005; 20 (2): pp 219-224.

**Davis AM, Gerrand C, Griffin AM, O'Sullivan B, Hill RP, Wunder JS, Abudu A, Bell RS:** Evaluation of clinical utility of BTC-2000 for measuring soft tissue fibrosis. *International Journal of Radiation Oncology, Biology, Physics*: September 2004; 6 (1): pp 280-294.

**Dubrowski A, Backstein D:** The Contributions of Kinisiology to Surgical Education. *Journal of Bone and Joint Surgery (American)*: December 2004; 86A(12): pp 2778-2781.

**Eppert K, Wunder JS, Aneliunas V, Andrulis IL:** Von Willebrand Factor Expression in Osteosarcoma Metastasis. *Modern Pathology*: October 2004: EPUB:

**Ferguson PC, Deshmukh N, Abudu A, Carter SR, Tillman RM, Grimer RJ:** Histological grade change in locally recurrent soft tissue sarcoma. *European Journal of Cancer*: October 2004; 40: pp 2237-2242.

**Ferguson PC, Sommerville S, Grimer RJ:** Possible Metastasis of Osteosarcoma to a Remote Biopsy Site: A Case Report. *Clinical Orthopaedics and Related Research*: July 2004; 424: pp 216-220.

**Goodman S, Pressman A, Saastamoinen H, Gross AE:** Modified sliding trochanteric osteotomy in revision total hip arthroplasty. *The Journal of Arthroplasty*: December 2004; 19, No. 8: pp 1039-1041.

**Gross AE:** The role of polymethylmethacrylate bone cement in revision arthroplasty of the hip. *Orthopaedic Clinics of North America*: January 2005; No. 36: pp 49-54.

**Gross AE, Goodman S:** The current role of structural grafts and cages in revision arthroplasty of the hip. *Clinical Orthopaedics and Related Research*: December 2004; No. 429: pp 193-200.

**Gross AE, Goodman S:** The role of cages and rings: When all else fails. *Orthopaedics*: September 2004; 27, No. 9: pp 969-970.

**Gross AE, Shasha N, Aubin P:** Long-term followup of the use of fresh osteochondral allografts for posttraumatic knee defects. *Clinical Orthopaedics and Related Research*: May 2005; No. 435: pp 79-87.

**Holt GE, Griffin AM, Pintilie M, Wunder JS, Catton CN, O'Sullivan B, Bell RS:** Fractures following radiotherapy and limb-salvage surgery for lower extremity soft-tissue sarcomas: A comparison of high-dose and low-dose radiotherapy. *Journal of Bone and Joint Surgery (American)*: January 2005: 87: pp 315-319.

**Lawrence M W, Wunder JS, Bell RS, O'Sullivan B, Catton C, Ferguson P, Blackstein M, Kandel RA:** Histologic Assessment of Peritumoral Edema in Soft Tissue Sarcoma. *International Journal of Radiation Oncology, Biology, Physics*: April 2005: 61: pp 1439-1445.

**Maseide K, Kandel RA, Bell RS, Catton CN, O'Sullivan B, Wunder JS, Pintilie M, Hedley D, Hill RP:** Carbonic anhydrase IX as a marker for poor prognosis in soft tissue sarcoma. *Clinical Cancer Research*: July 2004: 10(13): pp 4464-71.

**Maxwell C, Barzilay B, Shah V, Wunder JS, Bell R, Farine D:** Maternal and neonatal outcomes in pregnancies complicated by bone and soft-tissue tumors. *Obstetrics and Gynecology*: August 2004: 104(2): pp 344-8.

**Ghert MA, Abudu A, Natasha Driver N, Davis AM, Griffin AM, Pearce D, White L, O'Sullivan BO, Catton CN, Bell RS, Wunder JS:** The Indications for and the Prognostic significance of Amputation as the Primary Surgical Procedure for Localized Soft Tissue Sarcoma of the Extremity. *Annals of Surgical Oncology*: January 2005: EPUB:

**Ogilvie CM, Bell RS; Wunder JS; Griffin AM; Ferguson PC:** Functional outcome of endoprosthetic proximal femoral replacement. *Clinical Orthopaedics and Related Research*: September 2004: 426: pp 44-48.

**Pitson G, Robinson, P, Wilke D, Kandel R.A, White L, Griffin, A.M, Bell R, Catton C.N, Wunder JS, O'Sullivan B:** Radiation response: An additional unique signature of lipomyxoid liposarcoma. *International Journal of Radiation Oncology, Biology, Physics*: October 2004: 60, No 2: pp 522-526.

**Riad S, Griffin AM, Liberman B, Blackstein ME, Catton CN, Kandel RA, O'Sullivan B, White LM, Bell RS, Ferguson PC, Wunder JS:** Lymph Node Metastasis in Soft Tissue Sarcoma in an Extremity. *Clinical Orthopaedics and Related Research*: September 2004: 426: pp 129-134.

**White LM, Wunder JS, Bell RS, O'Sullivan B, Catton CN, Ferguson PC, Blackstein ME, Kandel, RA:** Histologic assessment of peritumoural edema in soft tissue sarcoma. *International Journal of Radiation Oncology, Biology, Physics*: March 2005: 61 (5): pp 1439-1445.

**Wunder JS, Gokgoz N, Parkes R, Bull SB, Eskandarian S, Davis AM, Beauchamp CP, Conrad EU, Grimer RJ, Healey JH, Malkin D, Mangham DC, Rock MJ, Bell RS, Andrulis IL:** TP53 mutations and outcome in osteosarcoma: A prospective, multicenter study. *Journal of Clinical Oncology*: March 2005: 23 (7): pp 1483-1490.

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

**Backstein D:** Cleveland Clinic, Cleveland, Ohio, April 2005. Alignment Issues Around Osteoarticular Lesions of the Knee.

**Backstein D:** Ontario Orthopaedic Association, Toronto, Ontario, October 2004. Optimizing Technical Skills Training in Orthopaedics.

**Backstein D:** Orthopaedic Research Society Meeting, Banff, Alberta, October 2004. Osteochondral Allografts: Procurement and Use.

**Backstein D:** Professor Rudolf Schabus Update in Sports Medicine, St. Anton, Austria, December 2004. Update on Unicompartmental Arthroplasty.

**Backstein D:** Surgical Advances in Total Hip and Knee, Gravenhurst, Ontario, September 2004. 1) Avoiding Infection in Total Hip Replacement. 2) Femoral Notching - When to Stem the Femur. 3) Soft Tissue Balancing for Primary Total Knee Replacement. 4) The Role of Large Femoral Heads in Primary THA.

**Backstein D:** Zimmer Canada Regional Meeting, Niagara-on-the-Lake, Ontario, May 2005. 1) Evolution of MIS Knee. 2) . Minimally Invasive Total Hip and Knee Arthroplasty.

**Bell RS:** Ontario Hospital Association - OHA HealthAchieve2004, Toronto, Ontario, November 2004. Cancer Care.

**Bell RS:** The Canadian Association of Provincial Cancer Agencies (CAPCA) and Canadian Cancer Surveillance Alliance (CCSA) Staging Initiative - Ontario Visit, Toronto, Ontario, January 2005. Cancer Care Ontario's Clinical Council and the Ontario Stage Capture Initiative.

**Bell RS:** Cancer Care Ontario, King City, Ontario, November 2004. Cancer Care Ontario's Role in Bridging the Know-Do Gap.

**Bell RS:** Ontario Orthopaedic Association, Toronto, Ontario, October 2004. Management of STS: Cancer Cure and Function.

**Bell RS:** Ontario Hospital Association presents Improving Surgical Process Efficiency to Reduce Wait Times, Toronto, Ontario, March 2005. Post-operative care and the link to critical care access.

**Bell RS:** Institute for Clinical Evaluative Sciences (ICES), Toronto, Ontario, January 2005. The Quality Agenda: Do our health data measure up? Panel Discussion: Information needs for Health Quality Councils.

**Ferguson PC:** Canadian Orthopaedic Association, Montreal, Quebec, June 2005. Instructional Course Lecture - Recent Advances in Bone Sarcomas.

**Gross AE:** 4th International Symposium Charnley Evolution 2004, Lyon, France, December 2004, (1) A classification and treatment guide for acetabular revision surgery. (2) Revision arthroplasty of the femur with restoration of bone stock.

**Gross AE:** Israeli Orthopaedic Association, Tel Aviv, Israel, November 2004. (1) Fresh osteochondral allografts for posttraumatic knee defects. (2) Revision arthroplasty of the hip femoral and acetabular sides.

**Gross AE:** Comparative Orthopaedics Day 2005, Comparative Orthopaedic Laboratory University of Missouri, Columbia, Missouri, February 2005. Key Note Speaker: The role of allograft tissue in lower extremity reconstruction 2005.

**Gross AE:** Articular Cartilage Repair Strategies: A Comprehensive Review, Hospital for Special Surgery, New York, NY, December 2004. Keynote Lecture - Osteochondral Allograft Transplantation: Its Role in Cartilage Repair - Fresh osteochondral allografts for posttraumatic knee defects.

**Gross AE:** American Orthopaedic Society for Sports Medicine, Soft Tissue Allografts in Orthopaedics: Science and Application, Atlanta, Georgia, January 2005. Long-term results of fresh osteochondral allografts for post traumatic knee defects.

**Gross AE:** Visiting Professor - Department of Orthopaedic Surgery, University of California, San Francisco, California, May 2005. (1) Long-term results of fresh osteochondral allografts for posttraumatic knee defects. (2) Osteotomy about the knee for osteoarthritis. (3) Revision arthroplasty of the hip in 2005.

**Gross AE:** 19th Annual Vail Orthopaedic Symposium, Total Hip and Knee Arthroplasty, Vail, Colorado, January 2005. Modified sliding trochanteric osteotomy for revision total hip replacement (2) Revision of the acetabulum: Classification and Treatment Guide.

**Gross AE:** 4th Asia Pacific Orthopaedic Symposium 2005, Hip and Knee Arthroplasty, Singapore, June 2005. (1) Periprosthetic Fractures of the Knee. (2) Fresh osteochondral allografts for posttraumatic knee defects. (3) Total hip replacement for dysplasia. (4) Femoral revision classification and treatment guide. (5) Femoral revision arthroplasty allografts and strut grafts. (6) Revision arthroplasty of the acetabulum.

**Gross AE:** Guest Lecturer, British Hip Society, Wrightington Hospital, Wigan, England, March 2005. Revision arthroplasty of the acetabulum in 2005. (2) Revision arthroplasty of the hip, structural grafts on the acetabular and femoral sides.

**Gross AE:** Canadian Orthopaedic Residents' Association Meeting, Toronto, Ontario, November 2004. The role of allograft tissue in lower extremity reconstruction 2004 (2) Ten commandments for residents.

**Gross AE:** XV Argentine Congress of Knee and Hip Society, Buenos Aires, Argentina, September 2004. (1) The treatment of periprosthetic fractures of the knee. (2) Revision arthroplasty of the acetabulum: Classification & surgical options. (3) Revision arthroplasty of the femur: A classification & treatment guide (4) Realignment osteotomy about the knee. (5) Total hip replacement for dysplasia. (6) The treatment of periprosthetic fractures of the hip. (7) Fresh osteochondral allografts for posttraumatic knee defects.

**Gross AE:** The Mexican Hip Society 5th International Meeting in hip Surgery, Guadalajara, Mexico, February 2005. (1) Total hip replacement for dysplasia (2) Revision arthroplasty of the acetabulum: Classification & Treatment Guide. (3) Revision arthroplasty of the femur: Classification & Treatment (4) The use of structural allografts for revision arthroplasty of the femur.

**Wunder JS:** Atlantic Provinces Orthopaedic Society Annual Meeting, St John's, Newfoundland, October 2004. 1) Extremity Lumps & Bumps: Challengers & Pitfalls. 2) Management of Acetabular Metastasis: What can you do when the pelvis is gone? 3) Extremity lumps and bumps: challenges and pitfalls. How to stay out of trouble! 4) Management of acetabular metastases. The importance of decision making.

**Wunder JS:** 2005 2nd International Symposium on Bone Tumor, Beijing, China, May 2005. 1) Improving Radiation Morbidity for Soft Tissue Sarcoma: The Therapeutic Ratio. 2) Reconstruction of Periacetabular Bone Defects for Sarcoma.

**Wunder JS:** Barbados/University of West Indies - Continuing Medical Education Conference, Barbados, West Indies, November 2004. Osteosarcoma and Limb Salvage: A Barbados Patient's Story & Management of Bone Metastases.

## 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, Blackstein D, Kim P, Kudrna J, Paprosky WG, Sporer S, Sekundiak T, Weeden SH: Zimmer Ltd (\$30,000 2003 - 2005).*

Anterior femoral notching during total knee arthroplasty: A biomechanical analysis. *Backstein D, Zalzal P: University of Toronto Zimmer Competition (\$10,000 2004 - 2005).*

Hedgehog signaling in cartilaginous neoplasia: Implications for treatment. *Wunder JS, Alman BA: Canadian Institutes of Health Research - CIHR x 5 years (\$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).*

Minimally Invasive single-incision total hip arthroplasty versus G3, Watson-Jones Technique: A prospective multi-centre randomized controlled trial. *Duncan C, Greidanus N, Gross AE, Anis A, Garbuz D, Masri B, Boyle M, Kim P, Laflamme GH, Puskus D, Tanzer M: University of British Columbia - Department of Orthopaedic Surgery (\$10,000 2005).*

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, Wenqing He, Irene L., Andrulis: 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).*

The effectiveness of video feedback in the development of technical skills in surgical residents. *Backstein, D, Agnidis Z, Reznick R, Regher G: University of Toronto, Faculty of Medicine (\$15,500 2003 - 2004).*

The Effects of Part-Whole Practice Schedule on the Acquisition of a Complex Bone Plating Surgical Procedure. *Backstein D, Dubrowski A, Carnahan H: Physician Services Incorporated (\$27,400 2003 - 2004).*

The role of the macrophage in polyethylene mediated total joint replacement failure. *Boynton EL: The Arthritis Society (\$80,377 2001 - 2004).*

TMT acetabular cup outcome study. *Gross AE, Backstein D: Zimmer Ltd (\$48,000 2003 - 2005).*

## Honours Received

**Backstein D:** Bruce Tovee Award for Undergraduate Education, May 2005.

**Wunder JS:** Young Inversigator Award from the Connective Tissue Oncology Society (CTOS) 2004, October 2004.

## **DIVISION OF PLASTIC SURGERY**

**Dr. N.H. McKee - Professor**

### **Publications**

**Kovler M, Lunden K, McKee N, Agur A:** The human first carpometacarpal joint: Osteoarthritic degeneration and 3-Dimensional modeling. *Journal of Hand Therapy*: October 2004: 17:4: pp 393-400.

## **DIVISION OF UROLOGY**

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

**Dr. K. C. Lo - Lecturer**

### **Publications**

**Chuang WW, Lo KC, Lipshultz LI and Lamb DJ:** Male Infertility. In: Yen and Jaffe's Reproductive Endocrinology: Physiology, Pathophysiology, and Clinical Management. Fifth Edition (Strauss JF and Barbieri, ed). Saunders, Philadelphia: 2004:

**Falender AE, Freiman RN, Geles KG, Lo KC, Hwang K, Lamb DJ, Morris PL, Tjian R, Richards JS:** Maintenance of Spermatogenesis Requires TAF4B, a Gonad Specific Subunit of TFIID. *Genes and Development*: April 2005: 19(7): pp 794-803.

**Lo KC, Brugh VM, Parker M, Lamb DJ:** Enrichment of Spermatogonial Stem Cells Using Rodamine 123 Mitochondrial Dye. *Biology of Reproduction*: March 2005: 72(3): pp 767-771.

**Lo KC, Lamb DJ:** The Testis and Male Accessory Organs. In: Yen and Jaffe's Reproductive Endocrinology: Physiology, Pathophysiology, and Clinical Mangement 5th Edition (Strauss JF and Barbieri RL, ed). Saunders, Philadelphia: 2004:

**Lo KC, Lei ZM, Rao Ch.V, Beck J, Lamb DJ:** De Novo Testosterone Production in LH Receptor Knockout Mice After Transplantation of Leydig Stem Cells. *Endocrinology*: September 2004: 145(9): pp 4011-4015.

**Lo KC, Whirledge S, Lamb DJ:** Stem cells: Implications for Urology. *Current Urology Report*: February 2005: 6(1): pp 49-54.

**Shin D, Lo KC, Lipshultz LI:** Treatment options for the infertile male with cancer. *Journal of the National Cancer Institute Monograph*: April 2005: 34: pp 48-50.

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

**Lo K:** Canadian Broadcasting Corporation (CBC) Morning News, Toronto, Ontario, February 2005. Male Contraceptives: Live TV interview with Allison Smith.

**Lo K:** Stem Cell Workshop. American Society of Reproductive Medicine, Philadelphia, Pennsylvania, October 2004. Stem cell technology for male infertility treatment.

**Lo K:** Solvay Pharma, Toronto, Ontario, April 2005. Testosterone: The ups and downs of aging.

### **Research and Investigations**

*Senior Investigator's Name Appears in Italics*

Molecular Basis of the CF Phenotype and it's Modification. *Lap-Chee Tsui*, Durie P, Jarvi K, Sweezey N, Rommens J, Bear C, Tullis E, Corey M, Rozmahel R: *National Institute of Health* (\$652,035 1999 - 2004).

### **Honours Received**

**Lo K:** Canadian Urologic Association Scholarship Foundation Award, July 2004.

**Lloyd C. Smith** - Surgeon-in-Chief



## ***Heads of Divisions***

**Dr. T. Harmantas - General Surgery**

**Dr. M. Roscoe - Orthopaedic Surgery**

**Dr. R. Levine - Plastic Surgery**

**Dr. C. Compeau - Throacic Surgery**

**Dr. A. McLean - (Interim) Urology**

**Dr. D. Wooster - Vascular**

The past year has been both challenging and exciting for the Department of Surgery at St. Joseph's Health Centre. In September of 2004, we opened a new operating room that provided much needed O.R. time, for surgeons struggling with excessive waiting lists. We then opened part of a second room in January 2005. Unfortunately, we were not able to completely open the second operating room because of anaesthesia shortages. The hospital set aside funding for two additional minimally invasive surgical suites, which will bring our total up to four, reinforcing our commitment to developing minimally invasive surgery. Hopefully, construction of the new minimally invasive suites will occur in the fall of 2005.

The Department has been struggling with the potential loss of vascular surgery from our institution. The Division of Vascular Surgery has been an important part of our department and key to our General Surgery Training Program for many years. At this point, it is still unclear what is going to happen with this division. Dr. George Oreopoulos joined the division in September 2004, replacing Dr. Dave Szalay who departed and took a position at McMaster University.

In the Division of Thoracic Surgery, Dr. Chris Compeau took over as head in January 2005. Dr. Ernie Spratt gave up active surgical practice in June 2005. He will continue to run a clinic and assist the other thoracic surgeons.

St. Joseph's Health Centre, like many institutions, has received extra funding for Ministry of Health priority programs. Specifically, we received extra funding for orthopaedic joint replacements and surgical oncology.

The Department of Surgery has reaffirmed our vision to become the best community teaching hospital in Canada. Currently, we have residents or fellows in all of our surgical subspecialties and we will continue to try to develop our teaching program further.

Looking to the future, we plan to continue to provide excellence in teaching and clinical surgery.





## **General Surgery**

Dr. M. Baida - Assistant Professor

Dr. T. Harmantas - Assistant Professor (Division Head)

Dr. R. Hart - Lecturer

Dr. D. Lindsay - Lecturer

Dr. L. C. Smith - Assistant Professor

## **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. Knowlton - Lecturer

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

## **Thoracic Surgery**

Dr. C. Compeau - Lecturer (Division Head)

Dr. E. Spratt - Associate Professor

Dr. Y. Shargall - Assistant Professor

## **Publications**

**de Perrot M, Chernenko S, Waddell TK, Shargall Y, Pierre AF, Hutcheon M, Keshavjee S:** Role of lung transplantation in the treatment of bronchogenic carcinomas for patients with end-stage pulmonary disease. *Journal of Clinical Oncology*: November 2004; 22 (21): pp 4351-6.

**Shargall Y, Pakhale S, Chamberlain D, Pierre A, Waddell TK, Hutcheon M, Keshavjee S:** Bilateral lung transplantation for metastatic leiomyosarcoma. *Journal of Heart Lung Transplantation*. July 2004; 23(7): 912-5.

**Shargall Y, de Perrot M, Keshavjee S, Darling G, Ginsberg R, Johnston M, Pierre A, Waddell TK:** 15 years single center experience with surgical resection of the superior vena cava for non-small cell lung cancer. *Lung Cancer*: September 2004; 45 (3): pp 357-63.

## **Urology**

Dr. A. Marcuzzi - Lecturer

Dr. U. Jain

Dr. A. McLean (Interim Division Head)

Dr. J. H. Wait - Lecturer

## **Vascular Surgery**

Dr. G. Oreopoulos

Dr. D. Wooster - Associate Professor (Division Head)

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



## ***Division Heads***

**Dr. L.E. Errett - Cardiac Surgery**

**Dr. O.D. Rotstein - General Surgery**

**Dr. W.S. Tucker - Neurosurgery (Acting Division Head)**

**Dr. E.H. Schemitsch - Orthopaedic Surgery**

**Dr. J.L. Mahoney - Plastic Surgery**

**Dr. R.J.D. Honey - Urology**

**Dr. F.M. Ameli - Vascular Surgery**

This has been an exciting year for the Department of Surgery at St. Michael's Hospital. The Hospital Strategic Plan completed in 2004 clearly places Surgery as one of the areas of growth and expansion in the Institution. Emphasis on the growth of Trauma/ Critical Care as a priority and the articulation of oncology as a hospital theme have promoted considerable changes within the Department. Most evident among these is strategic recruitment to support these areas. Drs. Howard Ginsberg and Henry Ahn have rejuvenated our spinal surgery program, while the addition of Drs. John Marshall and Andras Kapus have strengthened both the clinical and research efforts in Critical Care/ Trauma at the institution. Dr. Daniel Whelan joins the Faculty to add his expertise in trauma reconstruction as well as sports medicine. Dr. Melinda Musgrave will provide expert surgical care in the realm of reconstruction following major trauma as well as cancer surgery. We will sadly miss three of our Faculty who departed the University of Toronto to move to other institutions. Drs. Rick Moulton and Joseph Mamazza have gone to the University of Ottawa while Dr. Christopher Schlachta has relocated to the University of Western Ontario. All will be assuming leadership roles at these institutions, honours which reflects well on their prior experiences at St. Michael's Hospital.



In the realm of Education and Research, we have experienced similar successes. St. Michael's Hospital was 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 education awards. Dr. David Latter was awarded the Tovee Award for Postgraduate Education and Dr. Jameel Ali received the prestigious W. T. Aikins Award in the category of Course/Program development. Dr. John Marshall assumed the position of Head of the Canadian Critical Care Trials Group, an internationally renowned research network in critical care. Finally, Drs. John Bohnen and Michael Cusimano were promoted to the rank of Full Professor at the University of Toronto.

As we move into the next academic year, opportunities for recruitment and development in our Department abound. Our Department looks forward to these opportunities with the utmost enthusiasm.

## **DIVISION OF CARDIAC SURGERY**

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

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

**Dr. M. Keith - Lecturer**

**Dr. D.A. Latter - Associate Professor**

**Dr. Y. LeClerc - Associate Professor**

## **Publications**

**Keith M, Errett L:** Myocardial metabolism and improved outcomes after high risk heart surgery. *Seminars in Cardiothoracic and Vascular Anesthesia*: January 2005: 9(2): pp 167-71.

**Verma S, Fedak P, Weisel RD, Szmítko PE, Badiwala MV, Bonneau D, Latter D, Errett L, Leclerc Y:** Off-pump coronary artery bypass surgery: Fundamentals for the clinical cardiologist. *Circulation*: December 2004: 109: pp 1206-121.

**Verma S, Weisel R, Latter D, Errett L, Fremes S, Bonneau D, Lecerc Y, Szmítko PE, Weisel RD:** Clinician update: should radial arteries be used routinely for CABG? *Circulation*: August 2004: 110: pp 40-46.

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

**Errett LE:** Cardiac Team Meeting, University of Western Ontario, Whistler, British Columbia, March 2005. Minimizing invasiveness of cardiovascular surgery.

**Errett LE:** Bayer Health Care, Pharmaceuticals Division, Le Meridien King Edward Hotel, Toronto, October 2004. What is the cost of post-op cardiac surgical bleeding?

**Errett LE:** St. Jude Medical Inc., Huntsville, Ontario January 2005. What MD's expect from an AF Industry Expert.

## **Research and Investigations**

*Senior Investigator's Name Appears in Italics*

A randomized, prospective, controlled trial of beating heart coronary artery bypass grafting - versus coronary artery bypass surgery arrested heart-coronary artery bypass grafting. *Errett L, Latter D, Mazer D, Salasidis G, Keith M, Bonneau D, Rourke S, Leclec Y: Canadian Institutes of Health Research - University/Industry Program (\$43,000 2003 - 2004).*

Can reducing insulin resistance improve post-operative glycemic control and reduce markers in 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, Mazer D: Canadian Institutes of Health Research (\$156,000 2005 - 2007).*

Myovive clinical study: multi-centre randomized trial. *Errett L, Bonneau D, Latter D, Leclerc Y, Peniston C, Quantz M, Fremes S: Numico Research (\$444,000 2003 - 2005).*

The impact of cardiopulmonary bypass and cardiac surgery on lymphocyte energetics and immune function in patients with non-insulin dependent diabetes mellitus. *Keith M, Briet F, Errett L, Mazer D: Society of Cardiovascular Anesthesiologists (\$40,000 2005 - 2007).*

## **DIVISION OF GENERAL SURGERY**

**Dr. N. Ahmed - Assistant Professor**

**Dr. J. Ali - Professor**

**Dr. J.M.A. Bohnen - Associate Professor**

**Dr. M.J. Burnstein - Associate Professor (Interim Division Head)**

**Dr. J. Koo - Associate Professor**

**Dr. J. Mamazza - Assistant Professor**

**Dr. J.C. Marshall - Professor**

**Dr. R. Mustard- Assistant Professor**

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

## **Publications**

**Bohnen JMA:** Audit to improve. Canadian Journal of Surgery: February 2005: 48: pp 10-11.

**Burnstein MJ:** Challenges in the treatment of postoperative ileus (Editorial). Presentations in Focus: October 2004:

**Griffith L, Cook D, Hanna S, Rocker G, Sjokvist P, Dodek P, Marshall J, Levy M, Varon J, Finfer S, Jeaschke R, Lisa Buckingham, Gordon Guyatt and for the Level of Care Investigators and the Canadian Critical Care Trials Group:** Clinician discomfort with life support plans for mechanically ventilated patients. Intensive Care Medicine: September 2004: 30: pp 1783-1790.

**Grober D, Bohnen JMA:** Defining medical error. Canadian Journal of Surgery: February 2005: 48: pp 39-44.

**Khadaroo RG, Fan J, Powers KA, Fann B, Kapus A, Rotstein OD:** Impaired induction of IL-10 expression in the lung following hemorrhagic shock. Shock 2004 Sep: 22: pp 333-339.

**Khadaroo RG, He R, Parodo J, Powers KA, Marshall JC, Kapus A, Rotstein OD:** The role of the SRC family of tyrosine kinases following oxidant-induced lung injury in vivo. Surgery: August 2004: 136: pp 483-488.

**Lingard L, Espin S, Whyte S, Regehr G, Baker GR, Reznick R, Bohnen J, Orser B, Doran D, Grober E:** Communication failures in the operating room: An observational classification of recurrent types and effects. Quality and Safety in Health Care: October 2004: 13: pp 330-334.

**Marshall JC:** An antibiotic regimen for 8 days was as effective as one for 15 days in ventilator-associated pneumonia. ACP Journal Club: September 2004: 141: pp 30.

**Marshall JC:** Intra-abdominal infections. Microbes and Infection: September 2004: 6: pp 1015-1025.

**Marshall JC:** Measuring organ dysfunction in the intensive care unit: Why and how? Canadian Journal of Anaesthesia: March 2005: 52: pp 224-230.

**Marshall JC:** Multiple organ dysfunction syndrome. In: ACS Surgery: Principles and Practice (Wilmore D, Souba W, Fink M, Jurkovich G, Kaiser L, Pearce W, Pemberton J, Soper N, eds). WebMD, New York: 2004:

**Marshall JC:** Sepsis: Current status, future prospects. Current Opinion in Critical Care: August 2004: 10: pp 250-264.

**Marshall JC:** Through a glass darkly: The brave new world of in silico modeling. Critical Care Medicine: October 2004: 32: pp 2157-2159.

**Marshall JC:** Transfusion in the intensive care unit. Surgical Infection: June 2005: 6 Suppl 1: pp S31-37.

**Marshall JC, Foster D, Vincent JL, Cook DJ, Dellinger RP, Opal S, Abraham A, Brett S, Smith T, Mehta S, Derzko A, Romaschin A:** Diagnostic and prognostic implications of endotoxemia in critical illness: Results of the MEDIC study. Journal of Infectious Diseases: August 2004: 190: pp 527-534.

**Marshall JC, Maier RV, Jimenez M, Dellinger EP:** Source control in the management of severe sepsis and septic shock. Critical Care Medicine: November 2004: Suppl. 32: pp S513-S526.

- Marshall JC, Marshall KAM:** ICU-acquired infection: Mortality, Morbidity, and Costs. In: *Infection Control in the Intensive Care Unit 2nd Edition* (Saene HKF, Silvestri L, de la Cal MA, eds). Springer-Verlag, Milano: 2005: pp 605-620.
- Marshall JC:** Modeling MODS: What can be learned from animal models of the multiple-organ dysfunction syndrome? *Intensive Care Medicine*: May 2005: 31: pp 605-608.
- Masszi A, Fan L, Rosivall L, McCulloch CA, Rotstein OD, Mucsi I, Kapus A:** Integrity of cell-cell contacts is a critical regulator of TGF-beta 1-induced epithelial-to-myofibroblast transition: role for beta-catenin. *American Journal of Pathology* 2004 Dec: 165: pp 1955-67.
- McIntyre L, Hebert PC, Wells G, Fergusson D, Marshall J, Yetisir E, Blajchman MJ, for The Canadian Critical Care Trials Group:** Is a Restrictive Transfusion Strategy Safe for Resuscitated and Critically Ill Trauma Patients? *Journal of Trauma*: September 2004: 57: pp 563-568.
- Mustard RA, Bohnen JMA, Schouten BD:** The acute abdomen with special reference to intra-abdominal sepsis. In: *Principles of Critical Care 3rd Edition* (Hall JB, Schmidt GA, Wood LDH, eds). McGraw-Hill Co., Chicago: 2005.
- Norrby-Teglund A, Muller MP, McGeer A, Bing SG, Guru V, Bohnen J, Thulin P, Low DE:** Successful management of severe group A streptococcal soft tissue infections using an aggressive medical regimen including intravenous polyspecific immunoglobulin together with a conservative surgical approach. *Scandinavian Journal of Infectious Diseases*: March 2005: 37: pp 166-172.
- Oreopoulos GD, Wu H, Szasz K, Fan J, Marshall JC, Khadaroo RG, He R, Kapus A, Rotstein OD:** Hypertonic preconditioning prevents hepatocellular injury following ischemia/reperfusion in mice: A role for interleukin 10. *Hepatology*: July 2004: 40: pp 211-220.
- Panacek EA, Marshall JC, Albertson TE, Johnson DH, Johnson S, MacArthur RD, Miller M, Barchuk WT, Fischkoff S, Kaul M, Teoh L, Van Meter L, Lemeshow S, Hicklin G, Doig C, for the MONARCS [Monoclonal Anti-TNF: A Randomized Controlled Sepsis] Study Investigators:** Efficacy and safety of the monoclonal anti-TNF antibody F(ab')<sub>2</sub> fragment afelimomab in patients with severe sepsis stratified by IL-6 level. *Critical Care Medicine*: November 2004: 32: pp 2173-2182.
- Petros AJ, Lowry KG, van Saene HKF, Marshall JC:** Evidence-Based Medicine in the Intensive Care Unit. In: *Infection Control in the Intensive Care Unit 2nd Edition* (Saene HKF, Silvestri L, de la Cal MA, eds). Springer-Verlag, Milano: 2005: pp 621-634.
- Powers KA, Zurawska J, Szasz K, Khadaroo RG, Kapus A, Rotstein OD:** Hypertonic resuscitation of hemorrhagic shock prevents alveolar macrophage activation by preventing systemic oxidative stress due to gut ischemia/reperfusion. *Surgery* 2005 Jan: 137: pp 66-74.
- Schein M, Marshall JC:** Source control for surgical infections. *World Journal of Surgery*: July 2004: 28: pp 638-645.
- Sinuff T, Cook DJ, Rucker GM, Griffith LE, Walter SD, Fisher MM, Dodek PM, Sjøkvist P, McDonald E, Marshall JC, Kraus PA, Levy MM, Lazar NM, Guyatt GH, for the Canadian Critical Care Trials Group:** DNR directives established early in mechanically ventilated patients. *Canadian Journal of Anaesthesia*: December 2004: 51: pp 1034-1041.
- Szasz K, Jones JJ, Nathens AB, Lo AY, Marsden PA, Kapus A, Rotstein OD:** Glutathione depletion inhibits lipopolysaccharide-induced intercellular adhesion molecule 1 synthesis. *Free Radical Biology Medicine* 2005 May: 38(10): pp 1333-43.
- Suzuki T, Moraes TJ, Vachon E, Ginzberg HH, Huang TT, Matthay MA, Hollenberg MD, Marshall J, McCulloch CAG, Herrera Abreu MT, Chow CW, Downey GP:** Proteinase-activated receptor (PAR)-1 mediates elastase-induced apoptosis of human lung epithelial cells. *American Journal of Respiratory Cell and Molecular Biology*: May 2005: Epub: pp May 12.
- Taneja R, Li Y, Parodo J, Kapus A, Rotstein OD, Marshall JC:** Delayed neutrophil apoptosis in sepsis is associated with maintenance of mitochondrial transmembrane potential and reduced caspase-9 activity. *Critical Care Medicine*: July 2004: 32: pp 1460-1469.
- Thompson AE, Marshall JC, Opal SM:** Intraabdominal infections in infants and children: Descriptions and definitions. *Pediatric Critical Care Medicine*: May 2005: 6: pp S30-S35.
- Upperman JS, Sheridan RL, Marshall J:** Pediatric surgical site and soft tissue infections. *Pediatric Critical Care Medicine*: May 2005: 6: pp S36-S41.

## Invited Visits to Other Hospitals/Universities

**Ahmed N:** World Congress on Abdominal Compartment Syndrome, Nossal, Australia, December 2004. Abdominal Compartment Syndrome in the Absence of Intra-abdominal Injuries.

**Ahmed N:** Trauma Association of Canada, Whistler, British Columbia., April 2005. Cervical Spine Injury in Association with Craniomaxillofacial Fractures.

**Ahmed N:** Canadian Surgery Forum, Ottawa, Ontario, September 2004. Massive hemorrhage: Do transfusion protocols work ?

**Ahmed N:** Trauma Association of Canada, Whistler, British Columbia., April 2005. Pancreatic Function after Traumatic Pancreatic Injury.

**Ahmed N:** The 6th Annual Trauma Nursing Course, Toronto, Ontario, February 2005. Penetrating thoracic trauma - an 8 minute rapid fire session to outline the salient clinical aspects of penetrating thoracic trauma and the indications for resuscitative thoracotomy.

**Ahmed N:** St. Michael's Hospital Foundation, Toronto, Ontario, September 2004. Trauma in the city: The trauma program at St. Michael's Hospital.

**Bohnen JMA:** American College of Surgeons Annual Clinical Congress, New Orleans, Louisiana, October 2004. Current treatment of intraabdominal infection.

**Bohnen JMA:** Surgical Infection Society, 25th Annual Meeting, Miami, Florida, May 2005. Invited moderator Clinical Trials Case Series and Outcomes III.

**Bohnen JMA:** Peterborough County Medical Society, Peterborough, Ontario, April 2005. Prophylactic antibiotics for surgical procedures.

**Burnstein MJ:** III Curso Internacional de Colon, Recto y Ano, Mexico City, Mexico, January 2005. 1) Colorectal Surgery in Canada; 2) Surgery for Crohn's Disease; 3) Surgery for Ulcerative Colitis; 4) Rectal Anastomosis - How I Do It; 5) New Techniques in the Treatment of Faecal Incontinence.

**Burnstein MJ:** Seventeenth International Course on Therapeutic Endoscopy, Toronto, Ontario, October 2004. Anorectal Crohn's.

**Burnstein MJ:** 3rd Annual Meeting of the Goiania Coloproctology Society, Goiania, Brazil, August 2004. i) Anal Crohn's Disease; ii) Rectal Prolapse; iii) Anterior Resection Syndrome; iv) Faecal Incontinence.

**Burnstein MJ:** IBD Forum, Ottawa, ON, May 2005. Management of Complications of Pouch Procedure.

**Burnstein MJ:** GUT Rounds, York County Hospital, Newmarket, Ontario, September 2004. Operative Treatment of Crohn's Disease.

**Burnstein MJ:** William Osler Health Centre, Brampton, Ontario, September 2004. Visiting Professor, General Surgery Journal Club.

**Marshall JC:** Annual Scientific Meeting in Anaesthesiology, Hong Kong, , China, November 2004. 1. Apoptosis for the intensivist. 2. Sepsis: New targets, new strategies. 3. Endotoxemia in the intensive care unit.

**Marshall JC:** 6th European Congress of Trauma and Emergency Surgery, Rotterdam, Netherlands, September 2004. 1) Consensus guidelines for the management of severe sepsis and septic shock. 2) The multiple organ dysfunction syndrome. 3) The gut-liver axis in critical surgical illness. 4) Necrotizing pancreatitis: Current management.

**Marshall JC:** 25th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, March 2005. 1) Host microbial interactions: Adversarial or symbiotic? 2) Endotoxin levels. 3) No to empiric antibiotics 4) Antibiotics for ventilator-associated pneumonia - Any preference? 5) Necrotizing pancreatitis.

**Marshall JC:** First International Pan-Arab Critical Care Medicine Congress, Taif, Saudi Arabia, May 2005. 1. The multiple organ dysfunction syndrome. 2. Host-microbial interactions in the pathogenesis of critical illness. 3. Endotoxemia in the critically ill. 4. Severe sepsis and septic shock: 2005 Management guidelines 5. Empiric antibiotics for suspected ICU-acquired infection - No. 6. Principles of source control in life-threatening infection. 7. Acute necrotizing pancreatitis.

**Marshall JC:** Ake and Inger Grenvik Visiting Professorship, University of Pittsburgh, Pittsburgh, PA, September 2004. 1. Cellular mechanisms of delayed neutrophil apoptosis in sepsis. 2. Host-microbial interactions in critical illness.

**Marshall JC:** 9th Toronto Critical Care Medicine Symposium, Toronto, Ontario, October 2004. 1. Prevention and management of infection in necrotizing pancreatitis. 2. The AATICC trial. 3. Do we have effective therapies for sepsis?

**Marshall JC:** 34th World Congress, International College of Surgeons, Quito, Ecuador, October 2004. 1. Sepsis: Current and future management. 2. Principles of source control in life-threatening infection. 3. Necrotizing pancreatitis: Current management.

**Marshall JC:** Winkleman Lecture, State University of New York at Syracuse, Syracuse, New York, October 2004. Host-microbial interactions in sepsis: An evolving perspective.

**Marshall JC:** 5th International Sepsis Forum Colloquium on Clinical Trials for Sepsis and Acute Lung Injury, Mougins, France, June 2005. Intermediate and translational outcomes.

**Marshall JC:** 11th European Shock Society Meeting/8th Vienna Shock Forum, Vienna, Austria, January 2005. Late-acting mediators of innate immunity: Novel targets for sepsis therapeutics.

**Marshall JC:** Grand Rounds, Department of Critical Care Medicine, Rush University Medical Center, Chicago, Illinois, November 2004. Lipopolysaccharide in critical illness: Endotoxin or exohormone?

**Marshall JC:** 3rd ISF Cambridge Colloquium on Identifying Responsive Populations in Sepsis, Cambridge, United Kingdom, July 2004. Lipopolysaccharide: Endotoxin or exohormone?

**Marshall JC:** Shiga University, Kyoto, Japan, December 2004. Lipopolysaccharide: Endotoxin or exohormone?

**Marshall JC:** 28th Annual Meeting, Shock Society, Marco Island, Florida, June 2005. Necrosis and apoptosis of neutrophils.

**Marshall JC:** Scottish Intensive Care Society, Annual Scientific Meeting, Stirling University, Stirling, Scotland, January 2005. New insights into sepsis.

**Marshall JC:** 19th World Congress of the International Society for Digestive Surgery, Yokohama, Japan, December 2004. New strategies for the treatment of sepsis and septic shock.

**Marshall JC:** WFK Morrow Memorial Lecture, Royal Hospital, Belfast, Ireland, June 2005. Pathogen or partner. Host-microbial interactions in critical illness.

**Marshall JC:** 25th Annual Meeting, Surgical Infection Society, Miami, Florida, May 2005. Preventing and managing surgical infections: Perspectives from the Surviving Sepsis Campaign guidelines.

**Marshall JC:** ISF/PALISI Forum on Sepsis in Infants and Children, Boston, Massachusetts, September 2004. Skin and soft tissue infections.

**Marshall JC:** Scottish Critical Care Trials Group Research Day, Bridge of Allan, Scotland, January 2005. The Canadian Critical Care Trials Group - Current studies and initiatives.

**Marshall JC:** 17th Annual Congress, European Society of Intensive Care Medicine, Berlin, Germany, October 2004. The PIRO concept: Organ dysfunction.

**Marshall JC:** 90th Clinical Congress, American College of Surgeons, New Orleans, Louisiana, October 2004. Transfusion trigger: When to transfuse.

**Rotstein O:** Merck & Co Inc, Causeway Bay, Hong Kong, September 2004. Surgeon's Talk "Simplified Management of Intra-Abdominal Infection - A Surgeon's Perspective".

**Rotstein O:** Merck Sharp & Dohme (Singapore Branch), Singapore, Malaysia, September 2004. Surgeon's Talk "Simplified Management of Intra-Abdominal Infection - A Surgeon's Perspective".

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A double-blind, placebo-controlled study of E5564, a lipid antagonist, administered by twice daily intravenous infusions in patients with severe sepsis. *Marshall JC: Eisai Research Institute of Boston Inc* (\$60,000 2003 - 2004).

A Phase, 3, multicenter, randomized, placebo-controlled, double-blind, three-arm study to evaluate the safety and efficacy of tifacogin (Recombinant Tissue Factor Pathway Inhibitor) Administration in Patients with Severe Community-Acquired Pneumonia. *Marshall JC: Chiron Ltd.* (\$95,000 2004 - 2006).

A randomized double-blind placebo-controlled trial of prophylactic heparin in patients with severe sepsis and higher disease severity who are undergoing treatment with drotrecogin alpha (activated). *Marshall JC: Eli Lilly & Co.* (\$80,000 2003 - 2004).

Albumin as an immunomodulatory agent in hemorrhagic shock: Studies in a model of post-shock lung injury. *Rotstein OD: Plasma Protein Therapeutic Association (PPTA - USA)* (\$89,540 2000 - 2005).

Cancer Research Infrastructure Award. *Koo J, Haq R, Bell D: OCRN (Ontario Cancer Research Network)* (\$200,000 2004 - 2007).

CCURE: Critical Care from Cell to Society. *Arthur S. Slutsky, 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 - Renewal* (\$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).

Hypertonic preconditioning for liver ischemia/reperfusion injury: A novel protective strategy. *Rotstein OD: Physicians' Services Incorporated* (\$150,000 2005 - 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) - OD Rotstein (co-investigator): Canadian Institutes of Health Research* (\$5,306,074 2001 - 2006).

Randomized trial of doripenem piperacillin/tazobactam in the management of intra-abdominal infections. *Rotstein OD: Peninsula Pharmaceuticals, (\$ 2004-2005).*

Re-engineering the Canadian Critical Care Trials Group. *Cook DJ, Marshall JC: Canadian Institutes for Health Research Workshop Grant* (\$52,500 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 D, Baker R, Bohnen J, Reznick R, Orser B, Doran D, Rotstein L: Canadian Institutes of Health Research* (\$312,000 2004 - 2008).

Team Talk: Structured Interventions to Promote Patient Safety in the Operating Room. *L. Lingard, Baker R, Doran D, Orser B, Bohnen J, Reznick R, Grober E, Espin S: Canadian Institutes of Health Research* (\$124,917 2002 - 2004).

The AATICC Trial: Appropriate antimicrobial therapy in critical care - a pilot study. *Marshall JC, Aarts MA: Physician's Services Incorporated Foundation* (\$82,500 2002 - 2005).

## Honours Received

**Marshall JC:** John Marshall Award, MSICU, Toronto General Hospital, University Health Network, May 2005.



## **DIVISION OF NEUROSURGERY**

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

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

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

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

**Dr. H.S. Smyth - Assistant Professor**

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

## **Publications**

**Bogaards A, Varma A, Zhang K, Zach D, Bisland SK, Moiryama EH, Lilge L, Muller PJ, Wilson BC:** Fluorescence image-guided brain tumour resection with adjuvant metronomic photodynamic therapy: pre-clinical model and technology development. *Photochemistry Photobiology Science*: April 2005: 4(5): pp 438-42.

**Cusimano MD, Marchie A, Rotenberg B:** Skin sealants: an effective option for losing cerebrospinal fluid leakage. *Canadian Journal of Surgery*: October 2004: 47 (5): pp 1-3.

**Cusimano MD, Rothman A:** Consistency of Standards and Stability of Pass/Fail Decisions with Examinee-Based Standard Setting Methods in a Small-Scale Objective Structured Clinical Examination. *Academic Medicine*: October 2004: 79: pp S25-27.

**Peruzzo dos Santos Souza M, Willinsky R, Cusimano MD, Montanera W, Wallace MC, terBrugge KG, Marotta TR:** Microstent-Assisted Coiling for Wide-Necked Intracranial Aneurysms. *Canadian Journal of Neurological Sciences*: February 2005: 32, No. 1: pp 71-81.

**Robb A, Cusimano MD, Orckereely M, Etechells E:** A Randomized Trial of Teaching Informed Decision Making to Surgical Residents. *American Journal of Surgery*: April 2005:

**Singh SK, Hawkins C, Clarke I, Squire JA, Bayani J, Hide T, Henkelman RM, Cusimano MD, Dirks PB:** Identification of Human Brain Tumour Initiating Cells. *Nature*: November 2004: 3128: pp 1-8.

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

**Cusimano MD:** Division of Neurosurgery, The University of the West Indies, Mona, Kingston, January 2005. Caribbean Neurosciences Symposium.

**Cusimano MD:** WFNS 13th World Congress, Marrakesh, Morocco, June 2005. Infratentorial Meningiomas and petroclival Meningioma.

**Cusimano MD:** Ryerson University, Centre for the Study of Commercial Activity, Toronto, Ontario, November 2004. Invited Address--GEOIDE Strategic Initiative workshop for increased Social Science Research.

**Cusimano MD:** North American Skull Base Society, Toronto, Ontario, April 2005. Middle fossa subtemporal approach to the petrous apex.

**Cusimano MD:** American Association of Neurological Surgeons, New Orleans, Louisiana, April 2005. Panelist for "121 Contemporary surgical Approaches and complications to the lateral skull base".

**Cusimano MD:** North American Skull Base Society, Toronto, Ontario, April 2005. Preferred Papers--Oral Presentation--Moderator.

**Ginsberg H:** Spinal stenosis. Toronto, Ontario, February 2005. Canadian College of Physicians.

**Muller PJ:** 10th World Congress of the International Photodynamic Association, Munich, Germany, June 2005. Photodynamic therapy of brain tumours - the state of the art.

**Perrin RG:** WFNS Tumor Section Meeting, Jaipur, India, October 2004. 1) Anterior versus Posterior Approach for Spinal Tumor. 2) Neurosurgical Adventure in Zimbabwe.

**Perrin RG:** Neurosurgical Society of America Annual Meeting, Orlando, Florida, June 2005. Current Trends in the Management of Ruptured Intracranial Aneurysms in Toronto Following the International Subarachnoid Trial (ISAT).

**Perrin RG:** University Hospital, Leuven, Belgium, November 2004. Surgical Strategies for Spinal Metastasis.

**Perrin RG:** ACNS/AACNS/WFNS Joint Educational Neurosurgical Meeting, Bali, December 2004. 1) Surgical Strategies for Spinal Tumors. 2) World Directory of Neurological Surgeons.

**Perrin RG:** 5th Pan Arab Congress of Neurosurgery, Amman, Jordan, September 2004. 1) Unusual Spinal Tumors. 2) . World Directory of Neurological Surgeons.

**Perrin RG:** 13th World Congress of Neurological Surgery, Marrakech, Morocco, June 2005. 1) Vertebral Column Tumor Surgery. 2) Women in Neurosurgery -- Innovation in Training Women in Neurosurgery.

**Tucker WS:** Medical Education Academy, Teva Neuroscience, Cambridge, Ontario, May 2005. Medical-legal Issues for neurologists.

**Tucker WS:** Canadian Medical Protective Association, Toronto, Ontario, January 2005. Presentation of a clinical case - Plenary Session.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

“A clinical trial for the optimization and evaluation of ala fluorescense detection of malignant supratentorial gliomas”. *Muller P, Lothar Lilge*(Department of Medical Genetics and Microbiology) *Brian Wilson*(Department of Medical Genetics and Microbiology): *Canadian Institutes of Health Research* (\$68,563 2003 - 2005).

Accurately investigating novel strategies of intra-operative navigation during spinal instrumentative surgery. *Cobbald RSC, Ginsberg H: Institute of Biomaterials and Biomedical Engineering ( U of T). \$ 2004.*

(1) Photodynamic therapy: basic and clinical science studies, (2) 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).

A Multi Centre Observational Study to Evaluate the Incidence and Magnitude of Hemorrhagic Progression of Cerebral Contusions and the Identification of Important Safety Issues following Traumatic Brain Injury. *Site Principal Investigator, Cusimano MD; Tucker W; Ginsberg, H; Muller P; Perrin R; Baker A; Gray B; Muradali D: Multi Centre Trial: Novonordisk* (\$30,000 2004 - 2005).

An internet-based intervention for depression in mild traumatic brain injury patients: a pilot study. *Andrews, M, Topolovec-Vranic, J; Bhalerao, S; Cullen, N; Cusimano, MD; Masanic, C; McCutcheon, A; Michalak, A; Ouchterlony, D: Ontario Neurotrauma Foundation* (\$96,000 2005 - 2007).

Implementation and evaluation of a neurtruama 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).

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* (\$74,844 2004 - 2007).

## Honours Received

**Cusimano MD:** Ribbon Placing--3rd for Poster Presentation at the 2005 AANS Annual Meeting in New Orleans, Louisiana--Preventing Brain and Spinal cord Injuries: An Assessment of Injury-Related Behavioural Intentions in Primary School Children Using HealthScope, April 2005.

## **DIVISION OF ORTHOPAEDIC SURGERY**

**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.P. Waddell - Professor**

## **Publications**

**Berry GK, Stevens DG, Kreder HJ, McKee MD, Schemitsch EH, Stephen DJG:** Open fractures of the calcaneus: A review of treatment and outcome. *Journal of Orthopaedic Trauma*: July 2004: 18(4): pp 202-206.

**Beuerlein MJ, Reid JT, Schemitsch EH, McKee MD:** Effect of distal humeral varus deformity on strain in the lateral ulnar collateral ligament and ulnohumeral joint stability. *Journal of Bone and Joint Surgery (American)*: October 2004: 86A(10): pp 2235-42.

**Bhandari M, Busse JW, Jackowski D, Montori VM, Schunemann H, Sprague S, Mears D, Schemitsch EH, Heels-Ansdell D, Devereaux PJ:** Association between industry funding and statistically significant pro-industry findings in medical and surgical randomized trials. *Canadian Medical Association Journal*: July 2004: 170(4): pp 477-480.

**Bhandari M, Patenall V, Devereaux PJ, Tornetta P 3rd, Dirschl D, Leece P, Ramanan T, Schemitsch EH:** An observational study of duplicate presentation rates between two national orthopaedic meetings. *Canadian Journal of Surgery*: April 2005: 48(2): pp 117-22.

**Bhandari M, Schemitsch EH:** Fractures of the shaft of the ulna. *Journal of Orthopaedic Trauma*: August 2004: 18(7): pp 473-5.

**Bhandari M, Swiontkowski MF, Einhorn TA, Tornetta P 3rd, Schemitsch EH, Leece P, Sprague S, Wright JG:** Interobserver agreement in the application of levels of evidence to scientific papers in the American Volume of the *Journal of Bone and Joint Surgery*. *Journal of Bone and Joint Surgery American Volume*: August 2004: 86A(8): pp 1717-20.

**Bogoch ER, Gross DK:** Surgery of the hand in patients with Systemic Sclerosis: Outcomes and considerations. *Journal of Rheumatology*: April 2005: 32: pp 642-48.

**Daniels TR:** 1) The diabetic foot; 2) The ankle: Arthrodesis or arthroplasty. *Audio-Digest Orthopaedics*: September 2004: 27-09: pp 1-4.

**Daniels TR:** Adult reconstructive hindfoot: the adult clubfoot. *Audio-Digest Orthopaedics*: August 2004.

**Daniels TR:** Sports medicine - Foot and ankle subtalar instability. *Audio-Digest Orthopaedics*: September 2004: 27, Iss. 9.

**Daniels TR, Thomas R, Bell T:** Functional outcome of the foot and ankle following free flap fibular graft. *Foot & Ankle International*: December 2004:

**Elliot-Gibson V, Bogoch ER, Jamal SA, Beaton DE:** Practice patterns in the diagnosis and treatment of osteoporosis after a fragility fracture: a systematic review. *Osteoporosis International* 2004: October 2004: 15(10): pp 767-778.

**Gilbart MK, Jolles BM, Lee P, Bogoch D:** Surgery of the hand in Systemic Sclerosis. *Journal of Hand Surgery (British)* 2004: March 2005: 29(6): pp 599-603.

**Jolles BM, Bogoch ER:** Posterior versus lateral surgical approach for total hip arthroplasty in adults with osteoarthritis. *Cochrane Review In: The Cochrane Library, Chichester, United Kingdom: John Wiley & Sons*: October 2004:.

**Kreder HJ, Hanel DP, Agel J, McKee MD, Schemitsch EH, Trumble TE, Stephen DJG:** Indirect reduction and percutaneous fixation versus open reduction and internal fixation for displaced intra-articular fractures of the distal radius: A randomized, controlled trial. *Journal of Bone and Joint Surgery (British)*: June 2005: 87B No.6: pp 829-835.

**Leece P, Bhandari M, Sprague S, Swiontkowski MF, Schemitsch EH, Tornetta P, Devereaux PJ, Guyatt GH:** Internet versus mailed questionnaires: A controlled comparison. *Journal of Medical Internet Research*: October 2004: 6(4): pp e39.

**McKee MD:** Surgical Management of elbow dislocations associated with radial head and coronoid fractures: how to tame the "terrible triad". *Operative Orthopädie und Traumatologie*: September 2004: 16: pp 238-252.

**McKee MD, Hirji R, Schemitsch EH, Wild LM, Waddell JP:** Patient-oriented functional outcome after repair of distal biceps tendon ruptures using a single-incision technique. *Journal of Shoulder and Elbow Surgery*: June 2005: 14(3): pp 302-6.

**McKee MD, Pugh DM, Wild LM, Schemitsch EH, King GJ:** Standard surgical protocol to treat elbow dislocations with radial head and coronoid fractures. *Journal of Bone and Joint Surgery*: March 2005: 87(1): pp 22-32.

**McKee MD, Wild LM, Schemitsch EH:** Surgical techniques: Midshaft malunions of the clavicle. *Journal of Bone and Joint Surgery Supplement 1*: July 2004: 86A: pp 37-43.

**Saati AZ, McKee MD:** Fracture-dislocation of the elbow: diagnosis, treatment and prognosis. *Hand Clinics*: November 2004: 20: pp 405-414.

**Schemitsch EH:** Interactive and responsive the annual meeting changes to meet your needs. *Canadian Orthopaedic Association Bulletin*: May 2005: 69: pp 8.

**Schemitsch EH:** New technology - A blessing and a curse. *Canadian Orthopaedic Association Bulletin*: November 2004: 67: pp 7-8.

**Schemitsch EH:** Recruitment and retention of orthopaedic surgeons: The lifeblood which will sustain the specialty. *Canadian Orthopaedic Association Bulletin*: July 2004: 64: pp 8.

**Schemitsch EH:** Relevant, Timely and Readable. *Canadian Orthopaedic Association Bulletin*: February 2005: 68: pp 7.

**Schemitsch EH:** What 60 years has taught us. *Canadian Orthopaedic Association Bulletin*: May 2005: 69: pp 32-33.

**Schemitsch EH:** Why you wait for surgery. *Canadian Orthopaedic Association Bulletin*: August 2004: 66: pp 8-9.

**Schemitsch EH, Bhandari M (ed):** Randomized trails in orthopaedics. In: *Techniques in Orthopaedics* ((Lippincott Williams and Wilkins), ed). Hagerstown, Maryland: 2004:

**Van Houwelingen AP, McKee MD:** Treatment of osteopenic humeral shaft nonunion with compression plating, humeral cortical allograft struts and bone grafting. *Journal of Orthopaedic Trauma*: January 2005: 19: pp 36-41.

**Waddell JP, Morton J, Schemitsch EH:** The Role of Total Hip Replacement in Intertrochanteric Fractures of the Femur. *Clinical Orthopaedics and Related Research*: December 2004: 429: pp 49-53.

**Waddell, JP:** Hip Resurfacing Arthroplasty. *Canadian Orthopaedic Association Bulletin*: December 2004: 67: pp 18-19.

**Zangger P, Keystone EC, Bogoch ER:** Asymmetry of small joint involvement in rheumatoid arthritis: prevalence and tendency towards symmetry over time. *Joint Bone Spine, Revue du rhumatisme International Edition*: January 2005: 72: pp 241-247.

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

**Bogoch ER:** Atlantic Provinces Orthopaedic Association, St John's NFLD, September 2004. 1) Arthroplasty outcomes in adult JIA patients. 2) Outcome measures: One size fits all? 3) Osteoporosis in fragility fractures: Looking after our patients.

**Bogoch ER:** Novartis Pharmaceuticals Canada Inc: Investigators Meeting, Toronto Ontario, January 2005. Fracture mortality risk following an osseous fracture.

**Bogoch ER:** Ontario Rheumatology Association, Gravenhurst, Ontario, May 2005. Newer techniques in joint replacement surgery.

**Bogoch ER:** The London Hip Fracture Interest Group (HFIG), London Ontario, October 2004. Orthopaedic issues relevant to hip fracture care: The procedures, the patients, the system.

**Daniels TR:** Memorial University, St. John's, NF and Labrador, November 2004. 1) Ankle arthroplasty; 2) Ankle arthrodesis; and 3) Video on ankle fusion.

**Daniels TR:** Canadian orthopaedic foot and ankle society (COFAS) - Sheraton Wall Centre Hotel, Vancouver, British Columbia, April 2005. 1) Forefoot pain in a patient with a bunion: a) Proximal osteotomy technique, b) Debate: Lapidus vs. proximal osteotomy; 2) Ankle arthritis: Biomechanics; 3) Flat foot: Moderator; 4) Cavus foot: Triple arthrodesis - Indication and technique.

**Daniels TR:** National Woundcare Preceptorship: St. Michael's Hospital in partnership with Smith & Nephew Canada, Toronto, Ontario, October 2004. The neuropathic foot: surgical management.

**McKee MD:** 5th Annual AAOS/OTA Trauma Course, Miami, Florida, April 2005. 1.) Distal Humeral Fractures 2.) Radial head and Neck fractures.

**McKee MD:** 19 th Annual Vail Orthopaedic Symposium: Upper Extremity, Vail, Colorado, January 2005. 1.) Clavicle fractures: should they be fixed? 2.) Prosthetic replacement for 3, 4 part proximal humeral fractures. 3.) Coronoid fractures - little bone, big problem. 4.) Terrible triad injury- lab talk and demonstration. 5.) TEA: revision and salvage 6.) Non-implant options for arthritis.

**McKee MD:** Orthopaedic Trauma Association Annual Meeting, Ft. Lauderdale, Florida, October 2004. 1.) Upper extremity case presentations; 2.) Distal humeral laboratory demonstrator; 3.) Distal radial laboratory demonstrator.

**McKee MD:** AO Course, Advanced and Basic, Toronto, Ontario, November 2004. 1.) Malunions. 2.) BMP's and clinical outcomes. 3.) Scapular and clavicular fractures. 4.) Case presentations and audience questions.

**McKee MD:** Orlando Medical Center Grand Rounds, Orlando, Florida, March 2005. BMP's in trauma.

**McKee MD:** WSIB Ontario, Toronto, Ontario, October 2004. Clavicular Fractures.

**McKee MD:** American Association of Orthopaedic Surgeons 72nd Annual Meeting, Washington, District of Columbia, February 2005. Difficult elbow fractures- Pearls and Pitfalls.

**McKee MD:** Hospital for Special Surgery Symposium, Washington, District of Columbia, February 2005. Difficult Fracture Healing Choices: BMP's and fracture healing: Are they worth it?

**McKee MD:** OTA Residents Course, Ft. Lauderdale, Florida, October 2004. Humeral shaft fractures.

**McKee MD:** 4th Annual Panorama Colorado Orthopaedic Trauma Symposium, Denver, Colorado, February 2005. 1.) Keynote address: Clavicle fractures: Should we be more aggressive? 2.) TEA for Fracture: Short-term gain or long -term pain?

**McKee MD:** Orthopaedic Trauma Association, Washington, District of Columbia, February 2005. Orthobiologics - Symposium moderator and speaker.

**McKee MD:** Annual Closed Meeting of the ASES, New York, New York, September 2004. Prognostic factors associated with humeral nonunion repair.

**McKee MD:** 4th Biennial ASES Meeting, Monterey, California, October 2004. Single incision distal biceps repair.

**McKee MD:** American Shoulder and Elbow Surgeons Open Meeting, Washington, District of Columbia, February 2005. Symposium - semi-constrained elbow arthroplasty.

**McKee MD:** Limb Lengthening and Reconstruction Society- ASAMI, Washington, District of Columbia, February 2005. The use of OP-1 in limb reconstruction.

**McKee MD:** University of North Carolina, Raleigh, North Carolina, February 2005. Visiting Professor Grand Rounds - The use of BMP's in Trauma.

**McKee MD:** Queen's University, Kingston Ontario, April 2005. Visiting professor, Ersil Research Day, Queen's University: The use of BMP's in Trauma and Post-traumatic Reconstruction.

**Schemitsch EH:** Bone and Joint Decade. Young Investigators Initiative Workshop., Chicago, Illinois, May 2005. 1.) Human/animal use considerations. 2.) Budgets/justification.

**Schemitsch EH:** 19th Annual Vail Orthopaedic Symposium, Vail, Colorado, January 2005. 1.) Humerus fractures: non-operative management. 2.) Bioskills Lab - Distal Humeral Fractures. 3.) Both bone forearm fractures: Current concepts.

**Schemitsch EH:** AO/ASIF Course, Toronto, Ontario, November 2004. 1.) Lecture: Bone healing 2.) Lecture: Femoral neck fractures in the elderly patient: repair vs replacement. 3.) Moderator basic course 4.) Case discussions 5.) Moderator advanced course.

**Schemitsch EH:** Surgical Advances in Total Hip and Knee, Gravenhurst, Ontario, September 2004. 1.) Periprosthetic fractures after total knee arthroplasty 2.) Surface replacement total hip arthroplasty. What a great idea! 3.) The valgus total knee arthroplasty with navigation.

**Schemitsch EH:** Orthopaedic Trauma Association, Hollywood, Florida, October 2004. 1.) Scientific paper moderator 2.) Symposium, Evidence Based Medicine.

**Schemitsch EH:** International Society for Fracture Repair, Bologna, Italy, November 2004. 1.) Scientific Paper Moderator.

**Schemitsch EH:** Basic Science Focus Forum, Hollywood, Florida, October 2004. 1.) Symposium moderator; 2.) Pathophysiology of fat embolism 3. Scientific paper moderator.

**Schemitsch EH:** Nonunions: Advances and Controversies, Baltimore, Maryland, August 2004. 1.) Biology of the Nonunion. 2.) The Role of Autograft, Allograft, and Bone Graft Substitutes. 3.) The Role of Bone Stimulators for Nonunion Treatment. 4.) The Role of BMP in the Treatment of Nonunions. 5.) Distal Tibial Nonunions 6.) Distal Femoral Nonunions. 7.) Proximal Femoral Nonunions: Internal Fixation.

**Schemitsch EH:** Visiting Professor, Division of Orthopaedic Surgery, University of Alberta., Edmonton, Alberta, September 2004. 1.) Current concepts in the treatment of open tibia fractures. 2.) Bone graft substitutes in orthopaedic trauma.

**Schemitsch EH:** Combined Orthopaedic Research Society Meeting., Banff, Alberta, October 2004. Scientific paper moderator.

**Schemitsch EH:** Canadian Orthopaedic Association, Montreal, Quebec, June 2005. 1.) Session Moderator. 2.) Instructional course lecture. 3.) Techniques to assess quality in the orthopaedic literature.

**Schemitsch EH:** Visiting Professor, Division of Orthopaedic Surgery, McMaster University, Hamilton, Ontario, March 2005. Use of bone graft substitutes in orthopaedic trauma.

**Schemitsch EH:** Fracture Symposium, Gateborg, Sweden, April 2005. 1.) Should BMP be used in fracture surgery? 2.) Debridement of open fractures. The optimal technique? 3.) Clavical fractures - worth treating? 4.) Humeral fractures. 5.) Difficult elbow fractures - repair or arthroplasty? 6.) Ulnar fractures - do they need operation? 7.) The injured foot in the multiply injured patient.

**Waddell JP:** An Instructional Course in Total Hip Arthroplasty, The New Royal Infirmary, Summer University, Edinburgh, Scotland, September 2004. 1.) Ceramic/Ceramic Bearings for the Young Patient, 2.) Hip Registries - The Canadian Experience, 3.) Moderator: Complications of THA, 4.) A Rationale for Surface Replacement, 5.) Predictors and Outcomes Following Revision THR, 6.) Cementless or Cage Reconstruction.

**Waddell JP:** Orthopaedic Trauma Association Residents Basic Fracture Course, Ft. Lauderdale, Florida, October 2004. 1.) Closed Reduction and Treatment of Common Fractures - Principles, 2.) Hands-on Skills Lab: Casting/Functional Braces - Ankle and Distal Radius Fractures.

**Waddell JP:** 7th Congress of the European Federation of National Associations of Orthopaedics and Traumatology (EFORT), Lisbon, Portugal, June 2005. ARTOF - Femoral Fractures Top to Bottom - Session Chairman.

**Waddell JP:** British Association for Surgery of the Knee, Newcastle-upon-Tyne, United Kingdom, March 2005. Choosing a Total Knee Arthroplasty in 2005.

**Waddell JP:** Bone and Joint Decade Symposium, Bydgoszcz, Poland, April 2005. Osteoarthritis of the Hip and Knee.

**Waddell JP:** Mount Sinai School of Medicine, New York, New York, June 2005. Perspectives in Orthopaedic Surgery Training - Here and There. Visiting Professor.

**Waddell JP:** Dalhousie University, Halifax, Nova Scotia, April 2005. Perspectives in Postgraduate Education. 1.) 2005 Gordon W. Bethune Visiting Professor. 2.) Judge for Research Day.

**Waddell JP:** 11th Meeting of the Combined Orthopaedic Associations, Sydney, Australia, October 2004. Session Chair: Lower Limb Injury.

**Waddell JP:** McMaster University, Resident's Research Day, Hamilton, Ontario, October 2004. Synthes Visiting Professor 1.) A Balanced Approach to Fracture Management, 2.) Perspectives in Postgraduate Education.

**Waddell JP:** Japanese Hip Society, Nagasaki, Japan, October 2004. Total Hip Replacement After Pelvic Osteotomy.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A randomized controlled trial of 1st MTP joint fusion compared to 1st MTP joint hemiarthroplasty in severe hallux valgus rigidus. *Lau JTC, Daniels TR, Waddell JP, Mahomed N: PSI (\$36,500 2004 - 2005).*

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).*

Clinically important venous thromboembolism following lower extremity fractures: Epidemiology and prevention. *Selby R, Geerts W, Kreder H, Oh P, Szalai S, Hamilton P, Crowther M, Schemitsch EH, McKee MD: Canadian Institutes of Health Research/Industry Pharmacia (\$66,679 2001 - 2004).*

Development of Clinical Trials Infrastructure. *Schemitsch EH: Orthopaedic Research and Education Fund (\$150,000 2003 - 2006).*

ERAADS Study - External rotation for acute anterior shoulder dislocation. *McKee MD, Whelan DH: American Shoulder and Elbow Surgeons (\$10,000 2004 - 2005).*

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).*

Outcome following experimental production of pulmonary fat embolism. *Schemitsch EH: University of Toronto Research Committee (\$12,500 2003 - 2004).*

Predictor of disability outcomes following revision total knee arthroplasty. *Davis AM, Mahomed NH, Gross AE, Szalai J, Schemitsch EH, Kreder HJ, MacDonald SJ, Gignac MAM, Garbuz D, Sekundiak T, Bogoch ER, Davey JR: Canadian Institute for Health Research (CIHR) (\$68,365 2001 - 2004).*

Prospective randomized clinical study to evaluate the effects of less invasive stabilization plating techniques in distal femoral fractures. *Leighton R, O'Brien P, Buckley R, McKee MD, Schemitsch EH, Stephen DJ, Sanders D, McCormack D: AO Foundation and Synthes Canada (\$294,400 2002 - 2004).*

Randomized trial of reamed versus non reamed nails in tibial fractures. *Guyatt G, Bhandari M, Walter S, Leighton R, Kreder H, Schemitsch EH, O'Brien B: Canadian Institutes of Health Research (\$710,000 2001 - 2004).*

Study of prospectively evaluate 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).*

## Honours Received

**Bogoch ER:** COA Presidential Award of Merit for Outstanding Contributions to Orthopaedic Surgery, June 2005.

**Daniels TR:** \$20,000.00 from Smith & Nephew Inc. for a 2005 COFAS Conference, January 2005.

**McKee MD:** Featured on the cover of "TIME" magazine, Canadian edition February 7, 2005, February 2005.

**McKee MD:** R.I Harris Undergraduate Award - Best Article in U of T Undergraduate Medical Journal, September 2004.

**McKee MD:** Supervisor of Dr. Kurt Droll, Organon Sanofi-Synthelabo Resident Research Award, University of Toronto Kennedy Day, November 2004.

**McKee MD:** William Horsey Postgraduate Teaching Award - Best Surgical Teacher - St. Michael's Hospital, June 2005.

## **DIVISION OF PLASTIC SURGERY**

**Dr. J.L. Mahoney – Associate Professor – (Division Head)**

**Dr. M. Musgrave – Assistant Professor**

## **DIVISION OF UROLOGY**

**Dr. R.J.D. Honey - Associate Professor (Division Head)**

**Dr. KT Pace - Assistant Professor**

**Dr. R.J. Stewart - Assistant Professor**

## **Publications**

**Blew BDM, Fazio L, Pace KT, Honey RJD:** Comparison of Peditrol (TM) irrigation device and common methods of irrigation. *Journal of Endourology*: June 2005: 19 (5): pp 562-5.

**Cybulski P, Honey RJ, Pace KT:** Fluid absorption during ureterorenoscopy. *Journal of Endourology*: December 2004: 18(8): pp 739-42.

**Dagnone J, Blew BDM, Pace KT, Honey RJD:** Semi-rigid ureteroscopy of the upper ureter can be aided by external lower abdominal pressure. *Journal of Endourology*: April 2005: 19 (3): pp 342-7.

**Pace KT:** Surgical management of adrenal disorders: the triumph of minimally-invasive surgery. *Endocrinology Rounds*: October 2004: 4 (8): pp 1-6.

**Pace KT, Ghiculete D, Harju M, Kodama R, Carr L, Zini A, Radomski S, Robinette M, Herschorn S, Honey RJ:** Shock wave lithotripsy at 60 or 120 shocks per minute: a randomized, double-blinded trial. *Journal of Urology*: June 2005.

**Pearle MS, Lingeman JE, Leveillee R, Kuo R, Preminger GM, Nadler R, Macaluso J, Monga M, Kumar U, Dushinski J, Albala DM, Wolf JS, Honey J:** Prospective, randomized trial comparing shock wave lithotripsy and ureteroscopy for lower pole caliceal calculi 1 cm or less. *Journal of Urology*: June 2005: 1736: pp 2005-2009.

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

**Honey RJD:** 22nd World Congress on Endourology and SWL, 20th Basic Research Symposium, Mumbai, India, November 2004. Invited Faculty.

**Pace KT:** Canadian Endourology Group, Ottawa, Ontario, June 2005. Improving SWL efficacy: impact of rate and voltage escalation.

**Pace KT:** Annual meeting of the Urologic Society for Transplantation and Vascular Surgery, San Antonio, Texas, May 2005. Prospective comparison of health-related quality of life following laparoscopic and open donor nephrectomy.

**Pace KT:** Annual meeting of the Acoustical Society of America, Vancouver, May 2005. Shock wave lithotripsy at 60 or 120 shocks per minute: a randomized, double-blinded trial.

## **Research and Investigations**

*Senior Investigator's Name Appears in Italics*

Evaluation and development of a computerized endourology simulator. *Honey J, Pace K: Cook (Canada) Inc. (\$75,000 2001 - 2004).*

Impact of pneumoperitoneum on renal physiology: a rat model. *Pace K, Honey RJD, Stewart RJ, Hare G, Blew B: University of Toronto Dean's Fund New Faculty Award (\$10,000 2004 - 2005).*

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. A.G. Lossing - Associate Professor**

**Invited Visits to Other Hospitals/Universities**

**Lossing AG:** 26th Annual Canadian Society of Vascular Surgeons, Quebec City, Canada, October 2004. "Preservation of sexual function in males following open repair of abdominal aortic aneurysms."

**Robin Richards** - Surgeon-in-Chief



## ***Heads of Divisions***

**Dr. S. Fremes - Cardiac Surgery**

**Dr. A. Smith - General Surgery**

**Dr. M. Schwartz - Neurosurgery**

**Dr. T. Axelrod - Orthopaedic Surgery**

**Dr. J. Semple - Plastic Surgery**

**Dr. L. Klotz - Urology**

**Dr. R. Maggisano - Vascular Surgery**

The Hospital continued to operate at multiple sites with many Department members, particularly in the Divisions of General Surgery, Plastic Surgery, Orthopaedic Surgery and Urology, active at more than one of the Sunnybrook, Women College and Orthopaedic and Arthritic Campuses.

## **New Staff**

Manuel Gomez was appointed to the Scientific Staff of the Division of Plastic Surgery as Assistant Professor. Manuel's research interests are in the area of burn injury and prevention. Sharon Sharir was appointed as a Surgeon - Investigator in the Division of Urology. Sharon's research interests will be in urologic oncology and she will develop minimally invasive surgical techniques within the Division. Stacey O'Blenes was appointed to the Division of Cardiac Surgery. Stacey initiated his career at Dalhousie University, with a research interest in genomic risk factors for occlusion of coronary arterial grafts.

Homer Tien was appointed as a Clinical Associate in the Division of General Surgery. Homer is a Major in the Canadian Forces Medical Services and has received the Canadian Peacekeeping Medal and is enrolled in the MSc Program in Clinical Epidemiology. May Lynn Quan was appointed as a Clinical Associate in the Division of General Surgery. May Lynn has an interest in the assessment and treatment of breast cancer and is completing an MSc degree in Clinical Epidemiology at the University of Calgary.

## **Appointments and Promotions**

Fred Brenneman was promoted to Associate Professor in the Division of General Surgery, recognizing his contribution as a leader and researcher in the field of Trauma care. Paul Marks was promoted to Associate Professor for his scholarly activity focused on the treatment of knee ligament injuries and cartilage breakdown. Andy Smith was promoted to Associate Professor in recognition of his scholarship in the field of knowledge translation and research in the field of colorectal surgery. David Stephen was promoted to Associate Professor in recognition of his contributions in the field of orthopaedic traumatology. Dr. Stephen completed his term as Chief Examiner of Orthopaedic Surgery for the Royal College of Physicians and Surgeons of Canada and was appointed as an AO Foundation Trustee.

Calvin Law, Robert Nam and Albert Yee had very successful three year reviews and were promoted to the Active staff category.

## **Educational Activity and Awards**

All members fulfilled teaching roles with Departmental involvement at the pre-clerkship, clerkship, resident, fellowship and continuing education levels. Department members contributed in an abiding way to continuing education, by organizing and participating in Annual Updates in General Surgery, Urology, Breast Surgery, Cardiac Care, Trauma and Upper Extremity Reconstruction. Massey Beveridge chaired the Annual Bethune Round Table in the spring and multiple AO and ATLS Courses were chaired by Department members.

A.W. Harrison awards for excellence in teaching presented to resident physicians Sam Bederman and Mo Quadri (December 2004) and Allen Eckhaus and Adrian Laxton (June 2005). Andy Smith, Frances Wright and Calvin Law and colleagues presented a poster at the Faculty's 3<sup>rd</sup> Annual Educational achievement event, for their work supported by the Dean's Excellence Fund for Innovation in Medical Education.

Ron Kodama received a Peters-Boyd Academy PBL Tutoring Award and Robert Nam received the A.W. Bruce Undergraduate Teaching Award. Terry Axelrod was nominated for a C.R. Woolf Award.

## **Research Activity and Awards**

Calvin Law received an Ontario Ministry of Health 2004 Career Scientist Award for five years. Andy Smith, Calvin Law and Frances Wright received funding to improve colo-rectal cancer staging and treatment through a multimodal knowledge translation program. Lavina Lickley and Claire Holloway continued their nationally-funded breast cancer research. Frances Wright received funding from the Canadian Breast Cancer Foundation for her study of the response to neo-adjuvant therapy in locally advanced breast cancer. Homer

Tien and Lorraine Tremblay received funding to study radiation exposure from diagnostic imaging in trauma patients.

Steve Fremes and colleagues' study, comparing patency of saphenous vein versus radial artery graft was published in the New England Journal of Medicine. Steve was awarded the Lister Prize for his contributions to the Department at Gallie Day. Nimesh Desai (supervisor S. Fremes) received the Canadian Society of Cardiovascular Surgeon's Paul Cartier Resident Research Award, for his project studying the influence of competitive flow on radial artery graft patency, at the Canadian Cardiovascular Congress in Calgary. Gideon Cohen received a grant from the Heart and Stroke Foundation of Canada, for his study of left ventricular mass regression following aortic valve replacement.

John Semple hosted the Advanced Regenerative Tissue Engineering Center's first Symposium/Workshop in January, with four invited presenters. Karen Cross (supervisor Dr. J. Fish) presented her work on the determination of burn depth using near infrared spectroscopy at Gallie Day. John Semple and Joel Fish continued their work in advanced regenerative tissue engineering, a project supported by the Ontario Research Development Challenge Fund. The Burn Unit staff (M. Beveridge, R. Cartotto, J. Fish and M. Gomez) and their students presented ten papers and posters at the 37<sup>th</sup> Annual Meeting of the American Burn Association, winning awards and a scholarship.

Laurence Klotz and Robert Nam received multiple grants at a National level for their research in the field of prostate cancer. Laurence continued his work as Editor for the Canadian Journal of Urology and was elected as the Founding Chairman of the World Urologic Oncology Federation.

Cari Whyne, Albert Yee and Joel Finkelstein received CIHR funding to study the biomechanical implications of metastatic disease in the spine. Paul Marks received a grant from the Canadian Arthritis Research Network, to study risk factors that predict the progression of osteoarthritis after knee injury.



## Other Awards and Activities

Hensley Miller (December 2004) and Steve Fremes (June 2005) received Marvin Tile awards for outstanding contributions to the Department. Massey Beveridge and Peter Chu remained active in International Surgery. Fred Brenneman, John Cameron and Sherif Hanna continued their leadership in the Trauma, Musculoskeletal and Surgical Oncology Programs respectively.

Hamilton Hall, Robin Richards and Marvin Tile, remained active on the Board of the Sunnybrook and Women's Foundation, formed by the amalgamation of the Foundations of the legacy Institutions. Sender Herschorn served on the Decanal Promotion Committee and Robin Richards continued to Chair the Departmental Promotion Committee. Dr. Joe Schatzker was awarded the Mikulicz Medal by the Polish Surgical Society.

Joel Finkelstein will begin a one-year sabbatical as a Visiting Professor at Hadassah Medical Centre in Jerusalem, Israel as of July 1<sup>st</sup> 2005. He was awarded the 2005 Walter C. MacKenzie Scotiabank Fellowship in Surgery (\$21,000 to support Clinical and Research Fellowship at the Hadassah Hospital in Jerusalem)

Hensley Miller retired after more than thirty years of distinguished service in the Division of General Surgery. Lavina Lickley retired from active surgical practice and remained on staff in a non-surgical capacity.

## Conclusion

At the conclusion of the year searches were underway for the Inaugural Marvin Tile Chair in Orthopaedic Surgery and the Head of the Division of Neurosurgery. The Institution remained engaged with Government, in discussions regarding capital redevelopment and the Foundation announced an ambitious ten-year fund-raising campaign. The members of the Department value the continued opportunity to play a major role in providing surgical service to patients in the Province requiring treatment for trauma, burns, cancer, cardiac, musculoskeletal and neural disorders and appreciate the opportunity to contribute academically to our University.

## **DIVISION OF CARDIAC SURGERY**

**Dr. G.T. Christakis - Professor**

**Dr. G. Cohen - Assistant Professor**

**Dr. S.E. Fremes - Professor (Division Head)**

**Dr. B.S. Goldman - Professor**

**Dr. S.B. O'Blenes - Assistant Professor**

## **Publications**

**Abrahamov D, Bhatnagar G, Goldman B:** When is surgery indicated? *Cardiac Surgery Secrets*: July 2004: 2nd: pp 82-87.

**Desai ND, Cohen EA, Naylor CD, Fremes SE (on behalf of the Radial Artery Patency Study Investigators):** A randomized comparison of radial-artery and saphenous-vein coronary bypass grafts. *New England Journal of Medicine*: November 2004: 351(22): pp 2302-9.

**Desai ND, Kapila V, Pelletier MP, Cohen GN, Goldman BS, Grhistakis GT, Fremes SE:** Platelet transfusions are a potential cause of mortality and morbidity after coronary artery bypass grafting. *Acute coronary syndromes. Canadian Journal of Cardiology*: July 2004: 20 Suppl D: pp 109D.

**Desai ND, Latter DA, Goldman BS, Christakis GT, Fremes SE, Jamil M, Cohen GN:** Initial canadian experiences with open and endoscopic microwave energy ablation of a trial fibrillation using the AFX flex system. *Canadian Journal of Cardiology*: July 2004: 20 Suppl D: pp 174 D.

**Desai ND, Merin O, Cohen GN, Herman J, Mobilos S, Sever JY, Fremes SE, Goldman BS, Christakis GT:** Long-term results of aortic valve replacement with the St. Jude Toronto stentless porcine valve. *Annals of Thoracic Surgery*: December 2004: 78(6): pp 2076-83.

**Desai ND, Miwa S, Baerlocher MO, Kapila V, Pelletier MP, Goldman BS, Cohen GN, Christakis GT, Fremes SE:** Comprehensive coronary bypass graft assessment using the novadaq spy intraoperative angiography system: innovation towards perfect graft patency. *Canadian Journal of Cardiology*: July 2004: 20 Suppl D: pp 114D.

**Desai ND, Naimark DM, Fremes SE, Christakis GT, Cohen GN, Goldman BS:** Tissue valves are the preferred aortic prosthesis in middle aged patients: A Decision Analysis Using Markov Modeling. *Aortic Valve Surgery. Canadian Journal of Cardiology*: July 2004: 20 Suppl D: pp 199D.

**Fazel S, Pelletier MP, Goldman B:** Substrate enhancement in cardioplegia. *Myocardial Protection*: July 2004: pp 25.

**Goldman BS, Desani N, Grondin C, Fazel S, Williams WG, Baird RJ, David T, Baker C, Errett L, Fremes S, et al:** Heart Surgery in Canada. *Memoirs, Anecdotes, History & Perspective. Xlibris Corporation*: January 2005: pp 646.

**Guru V, Fremes SE:** The role of N-acetylcysteine in preventing radiographic contrast-induced nephropathy. *Clinical Nephrology*: August 2004: 62(2): pp 77-83.

**Hanayama N, Fazel S, Goldman BS, Mitoff PR, Sever J, Fremes SE:** Contemporary trends in aortic valve surgery: a single centre 10-year clinical experience. *Journal of Cardiac Surgery*: November 2004: 19(6): pp 552-8.

**Verma S, Szmilko PE, Weisel RD, Bonneau D, Latter D, Errett L, LeClerc Y, Fremes SE:** Should radial arteries be used routinely for coronary artery bypass grafting? *Circulation*: August 2004: 110(5): pp e40-6.

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

**Christakis GT:** Contemporary Cardiac Care, Niagara-on-the-Lake, Ontario, September 2004. *Controversies In The Management of Aortic and Mitral Stenosis.*

**Cohen G:** The 2nd Annual Great Debates & Innovations in Cardiology, Toronto, Ontario, May 2005. *Innovations in atrial fibrillation: Minimally invasive surgery as primary management. State of the Art Lecture: Gideon Cohen.*

**Cohen G:** The European Association for Cardio-thoracic Surgery, Leipzig, Germany, September 2004. *Is multiple arterial grafting safe in urgent coronary bypass? A propensity matched comparison.*

**Cohen G:** Dead Sea Symposium - International Society for Treatment of Arrhythmias, Israel, July 2004. *New Options for the Surgical Management of Atrial Fibrillation.*

**Goldman B:** Canadian Cardiovascular Congress., Calgary, Alberta, October 2004. (1) Comprehensive Coronary Bypass Graft Assessment Using the Novadaq Spy™ Intraoperative Angiography System: Innovation Towards Perfect Graft Patency. (2) Platelet Transfusions are a Potential Cause of Mortality and Morbidity after Coronary Artery Bypass Grafting. (3) Initial Canadian Experiences with Open and Endoscopic Microwave Energy Ablation of Atrial Fibrillation using the AF's Flex System. (4) Long-term Results of Aortic Valve Replacement with the St. Jude Toronto Stentless Porcine Valve. (5) Tissue Valves are the Preferred Aortic Prosthesis in Middle Ages Patients: A Decision analysis using Markov modelling.

**Goldman B:** International Society of Minimally Invasive Cardiac Surgery Annual Meeting., New York, New York, June 2005. A Randomized Comparison of Intraoperative Angiography and Transit-time Ultrasonic Flow Measurement to Detect Errors in Coronary Bypass Grafts.

**Goldman B:** American Association for Thoracic Surgery, San Francisco, California., April 2005. A Randomized Comparison of Intraoperative Angiography and Transit-time Ultrasonic Flow Measurement to Detect Errors in Coronary Bypass Grafts.

**Goldman B:** American College of Cardiology, Orlando, Florida, March 2005. Achieving Perfect Coronary Bypass Patency with Intraoperative Angiography.

**Goldman B:** The Society of Thoracic Surgeons 40th Annual Meeting and Exhibition, San Antonio, Texas, July 2004. Eleven-Year Follow-Up of the St. Jude Toronto Stentless Porcine Valve.

**Goldman B:** American Heart Association Scientific Sessions., New Orleans, Louisiana., November 2004. Initial Canadian Experiences with Open and Endoscopic Microwave Energy Ablation of Atrial Fibrillation using the AFx™ System.

**Goldman B:** European Society of Thoracic Surgeons/European Association of Cardio-thoracic Surgery., Leipzig, Germany, September 2004. Is Multiple arterial Grafting Safe in Urgent Coronary Bypass? A Propensity Matched Comparison.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A Randomized Placebo Controlled Trial of Intravenous N-Acetylcysteine (NAC) as a Renal Protective Agent for Prevention of Renal Dysfunction following Cardiopulmonary Bypass (CPB). *Fremes SE, Guru V, Naimark D: PSI Foundation Resident Research Grant (\$18,000 2003 - 2004).*

Blood Conservation Using Antifibrinolytics: A Randomized Trial in High Risk Cardiac Surgery -- The BART Trial. *Hebert, PC, Multi-Centre Study Participants (including Fremes, SE): Canadian Institutes for Health Research (\$1,000,000 2002 - 2005).*

Canadian Cardiovascular Outcomes Research Team. *Tu, J, Fremes SE: CIHR - Interdisciplinary health research team (\$5,000,000 2001 - 2005).*

Imaging Research Centre For Cardiac Intervention -- IRCCL. *John Rowlands, Keep D, Burns P, Chauhan V, Cohen E, Fort S, Foster S, Fremes SE, Stewart D, Wilson B, Wright G: Canada Foundation for Innovation (\$15,000,000 2002 - 2005).*

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).*

Stem Cell Chemotaxis in Acute Myocardial Infarction. *Marc Pelletier: Schulich Heart Program, Tanna Schulich Scholarship (\$90,000 2001 - 2004).*

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).*

## Honours Received

**Cohen G:** Heart and Stroke Foundation of Ontario Grant-in-aid- "Left ventricular mass regression following aortic valve replacement with stentless versus stented valves: follow-up of a randomized trial"., July 2004.

## **DIVISION OF GENERAL SURGERY**

**Dr. F.D. Brenneman - Assistant Professor**

**Dr. P.T. Chu - Assistant Professor**

**Dr. S.S. Hanna - Associate Professor**

**Dr. G.Y. Hiraki - Assistant Professor**

**Dr. C.M.B. Holloway - Assistant Professor**

**Dr. C.H.L. Law - Assistant Professor**

**Dr. L. Lickley - Professor**

**Dr. H.A.B. Miller - Associate Professor**

**Dr. S. Rizoli - Assistant Professor**

**Dr. T.M. Ross - Associate Professor**

**Dr. A. Smith - Assistant Professor (Division Head)**

**Dr. G.A. Taylor - Associate Professor**

**Dr. L. Tremblay - Assistant Professor**

**Dr. F. Wright - Assistant Professor**

## **Publications**

**Caulfield J, Singhal A, Moulton R, Brenneman F, Redelmeier D, Baker AJ:** Trauma recidivism in a large urban Canadian population. *Journal of Trauma*: October 2004; 57, No. 4: pp 872-876.

**Chapman JW, Lickley HLA, Trudeau ME, Hanna WM, Kahn HJ, Murray D, Sawka CA, Mobbs BG, McCready DR, Pritchard KI:** Ascertaining Prognosis for breast cancer in node-negative patients with innovative survival analysis. *The Breast Journal*: August 2004: (In Press):

**Haddad R, Ogilvie R, Croitoru M, Muniz V, Gryfe R, Pollet A, Shanmugathasan P, Fitzgerald TF, Law CHL, Hanna S, Jothy S, Redston R, Gallinger S, Smith AJ:** Microsatellite instability as a prognostic factor in resected colorectal cancer liver metastases. *Annals of Surgical Oncology*: November 2004; 11: pp 977-982.

**Inaba K, Sharkey PW, Stephen DJG, Redelmeier DA, Brenneman FD:** The increasing incidence of severe pelvic injury in motor vehicle collisions. *Injury*: August 2004; 35: pp 759-765.

**Klevan AE, Shlomovitz E, Smith AJ:** 2005: A new controversial chapter in the use of FOBT in primary care colorectal cancer screening. *University of Toronto Medical Journal*: May 2005; 82: pp 169-171.

**Law CHL, McKay D, Tandan VR:** Surgical treatment of gallstone disease. In: *Evidence Based Gastroenterology and Hepatology - 2nd Edition* (McDonald J, Burroughs A, Feagan B., eds). *British Medical Journal Books*; 2005:

**Lovrics PJ, Chen V, Coates G, Comacchi S, Goldsmith C, Law CHL, Levine M, Sanders K, Tandana V:** A prospective evaluation of positron emission tomography scanning, sentinel node biopsy and standard axillary dissection of axillary staging in patients with early stage breast cancer. *Annals of Surgical Oncology*: October 2004; 11: pp 846-853.

**Maroun J, Evans W, Smith A and others:** Focus on Colorectal Cancer in Ontario. In: *Focus on Colorectal Cancer in Ontario Cancer Care Ontario*, Toronto: 2004: pp 1-28.

**Tien H, Chughtai T, Jogeclar A, Cooper A, Brenneman F:** Elective and Emergency Surgery in SARS Patients. *Canadian Journal of Surgery*: February 2005; 48, No. 1: pp 71 - 74.

**Tremblay LN and Slutsky AS:** Pathogenesis of ventilator induced lung injury - trials and tribulations. *American Journal of Physiol Lung Cell Molecular Physiology*: May 2005; 288(4): pp L596-8.

**Trudeau ME, Pritchard KI, Chapman JW, Hanna W, Kahn H, Murray D, Sawka CA, Mobbs BG, Andrulis I, McCready DR, Lickley HL:** Prognostic Factors Affecting the Natural History of Node-Negative Breast Cancer. *Breast Cancer Research and Treatment*: August 2004.

**Wright FC, Ryan David, Dodge JE, Last LD, Law CHL, Smith AJ:** Identifying educationally influential specialists: issues arising from the use of "classical" criteria. *Journal of Continuing Education in the Health Professions*: January 2005; 24: pp 213-226.

## Invited Visits to Other Hospitals/Universities

**Brenneman FD:** Scarborough General Hospital Emergency Medicine Rounds, Toronto, Ontario, December 2004. “the Role of FAST in Blunt Trauma”.

**Brenneman FD:** Visiting Professor, McGill University, Montreal, Quebec., December 2004. A) “The Role of FAST” and “Hands-on FAST Workshop. B) JC Dickison Memorial Trauma Lecture: a Practical Course in Emergency Medicine. “FAST”.

**Brenneman FD:** Grand Surgical Rounds, McGill University, Montreal, Quebec, December 2004. “Trauma Systems and Trauma Centres”.

**Brenneman FD:** Johnson & Johnson Professional Education lecture, Calgary, Alberta, September 2004. 1.) The evolution of inguinal hernia repair. 2.) Laparoscopic ventral hernia repair. Also in: Victoria, British Columbia, September 2004; Saskatoon, Saskatchewan November 2004 and Montreal, Quebec, December 2004.

**Brenneman FD:** Salvation Grace General Hospital, Winnipeg, Manitoba, November 2004. Operative techniques of inguinal hernia repair.

**Brenneman FD:** Seven Oaks Hospital, Winnipeg, Manitoba, August 2004. Operative techniques of laparoscopic ventral hernia repair.

**Brenneman FD:** Victoria General Hospital, Winnipeg, Manitoba, November 2004. Operative techniques of laparoscopic ventral hernia repair.

**Holloway CMB:** Breast Surgeons Consultancy Meeting, Grandview Resort Ontario, July 2004. Chairperson, Breast Surgeons.

**Holloway CMB:** Surgical Oncology Network Symposium, Toronto, Ontario, October 2004. DCIS: Current Status and Future Trends.

**Holloway CMB:** CSSO Symposium, Ottawa, Ontario, September 2004. DCIS: Surgical Implications.

**Holloway CMB:** Grandview Resort, Ontario, July 2004. Endocrine Therapy for DCIS; Breast Surgeons Consultancy Meeting.

**Law CHL:** University of Sherbrooke, Hopital Charles Lemoyne, Greenfield Park, Quebec, June 2005. Advances in Hepatic Surgery.

**Law CHL:** Canadian Advisory Committee on Gastrointestinal Stromal Tumours (GIST), Surgery Subcommittee, Toronto, Ontario, April 2005. Difficult clinical dilemmas in the management of gastrointestinal stromal tumours (GIST).

**Law CHL:** North York General Hospital, North York, Ontario, February 2005. Gastrointestinal Sstromal tumours - Current issues in diagnosis, surgery and multimodalilty treatment.

**Law CHL:** The Credit Valley Hospital, Mississauga, Ontario, May 2005. Gastrointestinal Stromal Tumours - Current Issues in Diagnosis, Surgery and Multimodalilty Treatment.

**Law CHL:** Trillium Health Centre, Mississauga, Ontario, April 2005. Gastrointestinal Stromal Tumours - Current Issues in Diagnosis, Surgery and Multimodalilty Treatment.

**Law CHL:** Novartis, Toronto, Ontario, November 2004. GIST Educator Program.

**Rizoli S:** Canadian Association of General Surgery, Ottawa, Ontario, September 2004. Breakfast Session - Trauma.

**Rizoli S:** Canadian Association of General Surgery, Ottawa, Ontario, September 2004. Meet the Professor Breakfast Session, “Trauma review by case illustration”.

**Rizoli S:** Trauma 2005 Nursing Course, Toronto, Ontario, February 2005. Open Abdomens.

**Rizoli S:** Trauma Association of Canada Annual Meeting, Whistler, British Columbia, April 2005. Session Chair - Critical care rapid fire session.

**Rizoli S:** American College of Surgeons, New Orleans, Los Angeles, October 2004. Ultrasound in the acute setting.

**Smith AJ:** 2005 Medical Education Conference, Saskatoon, Saskatchewan, April 2005. Identifying and engaging opinion leaders in palliative and end of life care.

**Smith AJ:** Ontario Association of General Surgeons, Toronto, Ontario, November 2004. A) Knowledge transfer for ontario surgeons. B) What’s hot in colorectal cancer.

**Smith AJ:** Canadian Association of General Surgeons, Ottawa, Ontario, September 2004. Knowledge transfer in canadian surgery Organizer and Moderator.

**Smith AJ:** North York General Hospital, Toronto, Ontario, September 2004. Malignant bowel obstruction.

**Smith AJ:** Medical Industry Association of New Zealand, Auckland, New Zealand, February 2005. Recurrent rectal cancer: can it be cured?

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A population based study of the outcomes of transanal resection for rectal cancer. *Law, C.H.L., Paszat L, Klar N, Stern H, Swallow C, Smith A, Wright F: National Cancer Institute of Canada (NCIC) (\$172,767 2003 - 2005).*

A population-based study of outcomes of screening mammography among Ontario women 40-49 years of age. *Paszat L, Bondy S, Mai V, Chiarelli A, Benk V, Jong R, Holloway C, Ringash J, Mamdani M, Klar N: Canadian Breast Cancer Research Initiative (\$705,280 2002 - 2005).*

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).*

Breast cancer imaging and therapeutics: Research and Clinical Opportunities. *Plewes DP, Yaffe M, Holloway CMB, Causer P, Jong R: Den Haag Foundation (\$18,100,000 2003 - 2008).*

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).*

Causes of death of active duty Canadian forces personnel. *Brenneman FD, Tien H, Redelmeier DA, Shek P: Department of National Defense, Canada, Health Services Research and Development, Quality of Life Program (\$33,824 2004 - 2005).*

Clinical Research Consortium to Improve Resuscitation Outcomes. *Slutsky A, Tremblay L, Consultant: NIH Consortium Grant, (\$2,454,201 2004 - 2009).*

Does clinical examination, mammography, ultra-sound or magnetic resonance imaging best correlate with pathological response after neo-adjuvant therapy in women with locally advanced breast cancer? *Wright F, Holloway C, Clemons M, Pignol J-P, Trudeau M, Causer P: Canadian Breast Cancer Foundation Ontario Chapter (\$113,096 2004 - 2006).*

Ductal carcinoma in situ: A Population-Based Analysis. *Rakovitch E, Paszat L, Hanna S, Done S, Kahn H, Mai V, Goodwin P, Vallis K, Wong J, Holloway C, Gravel D, SenGupta S, Elavathil L, Tuck A, Escott N, Bonin M: Canadian Breast Cancer Research Alliance (CBCRA) (\$939,737 2004 - 2007).*

Evaluating a knowledge translation strategy for pancreatic cancer surgery in Ontario: 1995-2003. *Marko Simunovic, Brown A, Gagliardi A, Langer B, Davis D, Urbach D, Elit L, Holowaty E, Fitch M, Levine M, To T, Tandan V: 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: The Change Foundation (\$100,000 2002 - 2004).*

Improving colon cancer staging through a multimodal knowledge translation program aimed at surgeons and pathologists. *Smith AJ, Law CHL, Wright FC, Ryan D, Stern H, Khalifa M: Ontario Cancer Research Network (OCRN) (\$246,633 2003 - 2005).*

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).*

Modulation of the inflammatory and immune response by mechanical ventilation. *Tremblay L: Ontario Thoracic Society (\$29,000 2004 - 2005).*

Operating Funds. *Tremblay L: Sunnybrook and Women's College Health Sciences Centre, Centre Research Institute (\$70,000 2003 - 2005).*

Psychosocial functioning in women with mastectomy with or without breast reconstruction. *Metcalf KA., Narod S, Semple J, Holloway C: Canadian Breast Cancer Foundation Ontario Chapter (\$183,168 2004 - 2007).*

Quality Initiative in Rectal Cancer (QIRC) Trial. *Simunovic M, Levine M, Goldsmith C, Whelan T, McLeod R, Browman G, Stern H, Riddell R, Andy Smith (Steering Committee): CIHR (\$786,124 2001 - 2005).*

Radiation exposure from diagnostic imaging in trauma patients. *Tien H, Tremblay L: Physicians Services Incorporated Foundation (\$21,000 2004 - 2005).*

Risk of Advanced Proximal Neoplasia of the Colon in Asymptomatic Adults. *Rabeneck L, Paszat LF, Bondy S.J., Law CHL, Hsieh E, Stukel T, Marshall D, McLaughlin JR, Kim Y-IJ.: 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).*

The Impact of Transfusions on the Outcomes of Colorectal Cancer in the Era of Leukoreduction. *Law CHL (Senior Supervisor), Cheang T (Masters student): Ontario Graduate Scholarship \*\*Declined for another award\*\* (\$10,000 2004 - 2006).*

The role of angiogenesis in tumor cell invasion. *Lickley HLA, Seth A, Hanna WM, Catzavelos C: Bennett Family Foundation (\$250,000 2000 - 2005).*

To reduce wait times through cycleiImprovement 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).*

## Honours Received

**Lickley L:** Allison Roach Award, October 2004.

**Rizoli S:** Award for second best abstract. "Pacientes Com Traumatismo Craniano, Escala de Coma de Glasgow 3 e Pupilas Fixas e Dilatadas Conseguem Sobreviver Ao Trauma?" Rizoli SB, Ferreira Cunha JR, Nogueira Wu S. Congresso Sul Brasileiro de Cirurgia (CBC)., October 2004.

**Rizoli S:** Elected to membership, American Association for the Surgery of Trauma, September 2004.

**Rizoli S:** Fellow, American College of Surgeons, October 2004.

**Rizoli S:** Poster award for best CIB poster. "Osmolarity induced L-selectin shedding: the role of TACE." Malam Z, Parodo J, Tremblay L, Rizoli S., August 2004.

## **DIVISION OF NEUROSURGERY**

**Dr. M. Fazl - Assistant Professor**

**Dr. D.A. Houlden - Assistant Professor**

**Dr. F. Pirouzmand - Assistant Professor**

**Dr. D.W. Rowed - Associate Professor**

**Dr. M.L. Schwartz - Professor (Division Head)**

## **Publications**

**Lin VYW, Stewart C, Grebenyuk J, Tsao M, Rowed DW, Chen J, Nedzelski JM:** Unilateral acoustic neuromas: long-term hearing results in patients managed with fractionated stereotactic radiotherapy, hearing preservation surgery, and expectantly. *Laryngoscope*: February 2005; 115: pp 292-296.

**Rowed D.W:** Neurosurgery. In: *The Toronto Notes 2005*, 21st edition (Leonard BJN, Yeung JCS, eds). Toronto Notes Medical Publishing, Toronto: 2005:

**Rowed DW, Houlden DA, Burkholder LM, Taylor AB:** Comparison of monitoring techniques for intraoperative cerebral ischemia. *Canadian Journal of Neurological Sciences*: September 2004; 31: pp 347-356.

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

**Houlden D:** American Peripheral Nerve Society, Puerto Rico, January 2005. Neurophysiology in nerve surgery.

**Rowed DW:** 13th World Congress of Neurosurgery, Marrakesh, Morocco, June 2005. Acoustic neuroma surgery.

**Rowed DW:** American Association of Neurological Surgeons Annual Meeting, New Orleans, Louisiana, April 2005. Acoustic tumors: How I do it.

## **Research and Investigations**

*Senior Investigator's Name Appears in Italics*

PRECISE study. *Pirouzmand F. (study PI): NeoPharm* (\$100,000 2004 - 2006).

Serial SSEP Studies for Predicting Outcome in Comatose Patients with Head Injuries. *Houlden A: Ontario Neurotrauma Foundation* (\$101,900 2000 - 2005).

## **DIVISION OF ORTHOPAEDIC SURGERY**

**Dr. T.S. Axelrod - Associate Professor (Division Head)**

**Dr. H.U. Cameron - Associate Professor**

**Dr. J.C. Cameron - Assistant Professor**

**Dr. J.A. 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**

**Dr. B.E. Maki - Professor**

**Dr. B.W. Malcolm - Assistant Professor**

**Dr. P.H. Marks - Assistant Professor**

**Dr. J.J. Murnaghan - Assistant Professor**

**Dr. R.R. Richards - Professor**

**Dr. J. Schatzker - Professor**

**Dr. D.G.S. Stephen - Assistant Professor**

**Dr. M. Tile - Professor**

**Dr. C. Whyne - Assistant Professor**

**Dr. C.S. Wright - Assistant Professor**

**Dr. A.J.M. Yee - Assistant Professor**

## **Publications**

**Axelrod TS:** Fractures of the distal radius. Chapter 10. In: *The Rationale of Operative Fracture Care*, Third Edition Springer-Verlag, Berlin: 2005: pp 167-190.

**Bateni H, Zecevic A, McIlroy WE, Maki BE:** Resolving conflicts in task demands during balance recovery: does holding an object inhibit compensatory grasping? *Experimental Brain Research*: July 2004: 157: pp 49-58.

**Brenneman F, Kenji I, Sharkey P, Stephen D, Redelmeier, D:** The increasing incidence of severe pelvic injury in motor vehicle collisions. *Injury*: August 2004: 35 (8): pp 759-65.

**Brooks-Hill AL, Marks P:** Hip flexion may prevent ACL injury: A Biomechanical Explanation. *Clinical Journal of Sport Medicine*: January 2005.

**Clark JP, Hudak PL, Hawker GA, Coyte PC, Mahomed NN, Kreder HJ, Wright JG:** The moving target: a qualitative study of elderly patients' decision-making regarding total joint replacement surgery. *Journal of Bone and Joint Surgery (American)*: July 2004: 86-A (7): pp 1366-1374.

**Finkelstein JA, Ford M:** Diagnosis and management of pathological fractures of the spine. In: *Current Orthopaedics* (R.A. Dickson, ed). Conference Information Publishing,: 2004: pp 396-405.

**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.

**Kennedy DM, Stratford PW, Wessel J, Gollish JD, Penny D:** Assessing stability and change of four performance measures: a longitudinal study evaluating outcome following total hip and knee arthroplasty. *BMC Musculoskeletal Disorders* 2005: 6(1): pp 3-10.

**Kreder HJ:** Commentary: Topical nitric oxide application in the treatment of extensor tendinosis at the elbow: A Randomized, Double-Blinded, Placebo-Controlled Clinical Trial. *British Medical Journal (Clinical Research Ed)*: April 2004: 9: pp 87.

**Kreder HJ, Berry GK, McMurtry IA, Halman SI:** Arthroplasty in the Octogenarian: Quantifying the Risks. *Journal of Arthroplasty*: April 2005: 20(3): pp 289-293.

**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.

**Kregor PJ, Obremsky WT, Kreder HJ, Swiontkowski MF:** Unstable pertrochanteric femoral fractures. *Journal of Orthopaedic Trauma*: January 2005: 19 (1): pp 63-66.

**Marks PH, Droll KP, Cameron M:** Does ACL reconstruction prevent articular degeneration? The ACL risk equation. In: *Controversies In Knee Surgery* (Riley J. Williams and David P. Johnson, ed). Oxford University Press, New York: 2004: pp 22.

**Pagura SMC, Thomas SG, Woodhouse LJ, Ezzat S, Marks P:** Circulating and synovial levels of IGF-I, cytokines, physical function and anthropometry differ in women awaiting total knee arthroplasty when compared to men. *Journal of Orthopaedic Research*: August 2004: pp 9.

**Parikh SN, Kreder HJ:** Pelvic reconstruction for massive acetabular insufficiency. *Clinical Orthopaedics and Related Research*: May 2005: 434: pp 217-221.

**Quant S, Maki BE, McIlroy WE:** The association between later cortical potentials and later phases of postural reactions evoked by perturbations to upright stance. *Neuroscience Letters*: May 2005: 381: pp 269-274.

**Richards R:** Open repair for anterior shoulder instability. *COA Bulletin*: February 2005:

**Roth SE, Rebello MM, Kreder HJ, Whyne CM:** Pressurization of the metastatic femur during prophylactic intramedullary nail fixation. *Journal of Trauma*: August 2004: 57(2): pp 333-339.

**Tanzer M, Gollish JD, Leighton R, Orrell K, Giacchino A, Welsh P:** The effect of adjuvant calcium phosphate coating on a porous coated femoral stem. *Clinical Orthopaedics and Related Research* 2004: 424: pp 153-60.

**Weller I, Wai EK, Jaglal S, Kreder HJ:** The effect of hospital type and surgical delay on mortality after surgery for hip fracture. *Journal of Bone and Joint Surgery (British)*: March 2005: 87B(3): pp 361-366.

**Williams JI, Shipton D, Badley EM, Hawker G, Kreder HJ, DeBoer D, Guan J, Mahomed N:** Surgical Services. In: *Arthritis and Related Conditions in Ontario: ICES Research Atlas* (Badley EM, Glazier RH, eds). Institute for Clinical Evaluative Sciences, Toronto, ON: 2004: pp 105-132.

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

**Axelrod TS:** AO International, Basel, Switzerland, September 2004. AO International Hand and Wrist Surgery Course Oberdorf; 1.) Lab: Moderator. 2.) Lecture: Bone Grafting and Substitutes. 3.) Scaphoid Non-Unions and Malunions. 4.) Lecture: The current role of Internal Fixation in Distal Radius Fractures.

**Axelrod TS:** AO North America, Toronto, Ontario, November 2004. AO/ASIF Basic and advanced principles of operative fracture management course. 1.) Lab: Internal Fixation of Forearm Fractures. 2.) Lab: Pre-operative planning. 3.) Lecture: ORIF of Humeral Shaft Fractures 4.) Moderator: Paediatric Fracture Update, Pelvic Trauma Update.

**Axelrod TS:** American Academy of Orthopaedic Surgeons, Annual Meeting, Washington, District of Columbia., February 2005. Complications of Distal Radius Fractures: Arthritis and Carpal Deformity Instructional Course Lecture #224.

**Axelrod TS:** CORA, Toronto, Ontario, November 2004. CORA Annual Meeting: Moderator Trauma Session.

**Axelrod TS:** AO North America, Toronto, Ontario, November 2004. Course Chairman:AO/ASIF Basic and advanced principles of operative fracture management course.

**Axelrod TS:** University of Toronto, Toronto, Ontario, April 2005. Current concepts in the management of proximal humerusFractures: Upper Extremity Update.

**Axelrod TS:** Synthes, Toronto, March 2005. Locking plates in the management of distal radius fractures: Synthes New Technologies Workshop.

**Cameron JC:** Reunion. University of Toronto., Toronto, Ontario, June 2005. Meniscus Allograft Transplantation.

**Finkelstein JA:** Bellinson Hospital, University of Tel Aviv Hospital, Tel Aviv, Israel, July 2004. Initial Evaluation and Treatment of Spinal Cord Injury.

**Gollish JD:** Ontario Hospital Association, Toronto, Ontario, March , 2005. Improving Surgical Process Efficiency to Reduce Waiting Times - The surgical day : common bottlenecks and innovative solutions.

**Gollish JD, Kennedy DM, Stratford PW, Hanna SE, Wessel J:** . Combined Orthopaedic Associations , 11th Meeting, October 24 - 29, 2004, Sydney, Australia, Oct 29, 2004. 1) Key predictors of functional recovery following total hip and knee arthroplasty. 2) Measuring recovery following total hip and knee arthroplasty: The case for functional measures.

**Gollish JD:** 21st Annual Hip, Knee and Shoulder Symposium, Salt Lake City, Utah, Mar 17, 2005 - Mar 19, 2005. Mobile Bearing Total Knee Arthroplasty.

**Kreder HJ:** Canadian Orthopaedic Association, Montreal, Quebec, June 2005. Access to Care: What can be done in Canada? The National Standards Committee Symposium on Policy Recommendations.

**Kreder HJ:** Emerging Trends and Controversies in Total Hip Arthroplasty Course, Whistler, British Columbia, March 2005. Acute total hip replacement in acetabular fractures: Techniques and Outcome.

**Kreder HJ:** Alpha Group, Cancun, Mexico, January 2005. Alpha Group Annual Meeting. 1.) Data in Industry Sponsored Trials: Who Owns the Data? 2.) Displaced Subcapital Hip Fractures in the Elderly: Is Hip Replacement Really Better Than Fixation?

**Kreder HJ:** Emerging Trends and Controversies in Total Hip Arthroplasty Course, Whistler, British Columbia, March 2005. Alternate bearing surfaces in total hip replacement: Are They Better? Are They Safe?

**Kreder HJ:** AO North America, Birmingham, ALabama, June 2005. Anterior Wall / Anterior Column Acetabular Fractures.

**Kreder HJ:** AO North America, Dallas, Texas, January 2005. Basic Principles and Techniques of Operative Fracture Management.

**Kreder HJ:** AO International, Poland, Krakow, Poland, May 2005. 1.) Bicondylar Tibial Plateau Fractures: Fixation Technique Lab. 2.) Open Fractures: Principles of Treatment. 3.) Pelvic Fractures: Classification, Emergency Treatment and Principles of Definitive Fixation. 4.) Pelvic Fractures: Case Discussions Regarding Emergency Management. 5.) Polytrauma: Priorities of Treatment. 6.) Evidence Based Medicine and Research in Orthopaedics: Strategies for Successful Implementation. 7.) Type C2 Distal Femur Fractures: Fixation Technique Lab. 8.) Tibial Plateau Fractures: Indications and Techniques of Locked Plating. 9.) Fractures of the Distal Femur: Plating Indications and Techniques.

**Kreder HJ:** AO North America, Dallas, Texas, January 2005. Diaphyseal fracture management: The Humerus.

**Kreder HJ:** Brown's University, Providence, Rhode Island, November 2004. Evidence Based Surgery: What is it and do we need it?

**Kreder HJ:** AO/ASIF Course on Basic Principles and Techniques of Operative Fracture Management, Toronto, Ontario, November 2004. Intracapsular hip fractures: Principles of Treatment.

**Kreder HJ:** Brown's University, Providence, Rhode Island, November 2004. Measuring health: Instrument Use and Development.

**Kreder HJ:** AO/ASIF Course on basic principles and techniques of operative fracture management, Toronto, Ontario, November 2004. Special Fracture Problems: Violation of Principles.

**Kreder HJ:** Emerging Trends and Controversies in Total Hip Arthroplasty Course, Whistler, British Columbia, March 2005. Technical Points and Outcomes Following Total Hip Replacement After Old Acetabular Fracture.

**Kreder HJ:** Canadian Orthopaedic Residents Association, Toronto, Ontario, November 2004. Trauma Session Moderator.

**Kreder HJ:** Brown's University, Department of Orthopaedic Surgery, Providence, Rhode Island, November 2004. Visiting Professor.

**Maki BE:** International Symposium on Preventing Falls and Fractures in Older Persons, Yokohama, Japan, July 2004. Control of rapid limb movements for balance recovery: control mechanisms, age-related changes and implications for fall prevention.

**Maki BE:** CIHR Stair Study Meeting, University of Ottawa, Ottawa, Ontario, February 2005. Invited participant..

**Marks PH:** AOSSM, Atlanta, Georgia, January 2005. ACL Injury & Injury Prevention meeting.

**Murnaghan JJ:** Eastern Great Lakes Burn Study Conference, Cleveland, Ohio, September 2004. Achieving upper extremity function following heterotopic ossification (HO) surgery using multi-modalities: A Case Presentation.

**Murnaghan JJ:** Ontario Association of Amputation Care, London, Ontario, May 2005. Management of problem amputation wounds.

**Richards RR:** Alpha Club, Mayan Riviera, Mexico, January 2005. Functional outcome following surgical treatment of humeral shaft nonunion. 1.) VanHouwelingen, K. Panagiotopoulos, E. Schemitsch, R. Richards, M. McKee. 2.) Open Rotator Cuff Repair. 3.) Arthroplasty Combined Hip and Knee Section. Moderator.

**Richards RR:** Canadian Orthopaedic Association, Montreal, Quebec, June 2005. Instructional course lecture moderator/panel. How to Identify Good Orthopaedic Literature and What Makes a Good, Publishable Paper. Introduction to the Editorial Process. R. Richards, E. H. Schemitsch, J. P. Waddell.

**Richards RR:** 2nd Annual AAOS/OTA Advanced Surgical Skills Course, Washington, District of Columbia, February 2005. Proximal humerus fractures: Operative Treatment (Arthroplasty) Indications, Techniques, Outcomes and Complications.

**Schatzker J:** Annual AO course presentations, Davos, Switzerland, December 2004. Fractures of the humerus, intra-articular malunions about the knee, Assessment and treatment of pseudoarthroses.

**Schatzker J:** The Australian Orthopaedic Society Mid winter Meeting. Presentations and moderator trauma program. Cairns, Australia July 2004.

**Schatzker J:** Beijing, People's Republic of China. **September 2004.** 1.) Beijing Ji Shui Tan Hospital Ward rounds and case discussion. 2.) The surgical technique of total knee replacement, Surgical technique of total hip revision. 3.) The surgical technique of total hip revision using rings and cages. 4.) Ju Shui Tan Hospital Grand rounds. **November 2004.** Presentations: Technique of total knee replacement. Beijing Wangjing Hospital Live surgical demonstration: Bilateral total knee replacement.

**Schatzker J:** Brisbane Queensland, Princess Alexandra Hospital and Royal Brisbane Hospital. Presentation: Intra-articular mal/non-union. Brisbane, November 2004.

**Schatzker J:** Bi-Annual trauma conference of the Chinese Orthopaedic Society. Dalin, August 2004. Dalin, China, Presentation: The surgical treatment of late intra-articular mal/non-union.

**Schatzker J:** Presentation. Jinan Shandong Province. Surgical technique of total knee replacement, Surgical technique of total hip revision. Jinan Shandong, People's Republic of China. September 2004

**Schatzker J:** Presentation: Nambour, Queensland, Australia November 2004. Evolution of trauma care and case presentations and discussion.

**Schatzker J:** UNSW Learning Center. Sydney, Australia, November 2004. Trauma workshop and presentation and workshop on pre-operative planning of total hip replacement.

**Schatzker J:** Principles AO course. Warsaw, Poland, October 2004. Organizer, Chairman and lecturer.

**Schatzker J:** Zheng Zhou People's Hospital Live surgical demonstration, Zheng Zhou, People's Republic of China, November 2004. Bilateral total knee replacement and Ward rounds.

**Stephen DGS:** North York General Hospital, North York, Ontario, July 2004. Basic biomechanical principles inherent to locked plating.

**Stephen DGS:** AO User Meeting on Angular Stability, Berlin, Germany, September 2004. Case Discussion on Angular Stability.

**Stephen DGS:** Canadian Orthopaedic Association Annual General Meeting, Montreal, Canada, June 2005. Common trauma problems about the foot and ankle.

**Stephen DGS:** Urology Update 2004., Toronto, Ontario, October 2004. Emergency management of high energy pelvic fractures.

**Stephen DGS:** 10th Annual Orthopaedic Trauma Association Residents Basic Fracture Course, Fort Lauderdale, Ontario, October 2004. Lab Instructor - Spanning Ex-Fix Strategies.

**Stephen DGS:** AO ASIF pelvic and acetabular fracture management course., Birmingham, Alabama, June 2005. Management of sacral fractures.

**Stephen DGS:** AO ASIF Principles for fracture management basic course for residents, Sun Valley, Idaho, March 2005. 1.) Moderator: Session III - Basic Course. 2.) Results of calcaneal fractures. (Talk + Practice Exercise). 3.) Table Instructor - Advanced Course. 4.) The patient and the injury.

**Stephen DGS:** Synthes (USA), New Concepts Trauma Symposium, Toronto, Ontario, March 2005. 1.) New Treatment Options for Periprosthetic Fractures; 2.) Locking Compression Plates in Periprosthetic Fractures (included Introduction to Lab); 3.) Practical Session - Fixation of Periprosthetic Fractures: Total Knee Arthroplasty.

**Stephen DGS:** 10th Annual Orthopaedic Trauma Association Residents Basic Fracture Course, Fort Lauderdale, Florida, October 2004. On panel for case discussion : Avoiding pitfalls in the treatment of ankle fractures.

**Stephen DGS:** Trauma Practice Guidelines 2004, Canadian Surgery Forum, Trauma Association of Canada, Ottawa, Ontario, September 2004. Pelvic fracture/hemorrhage management guidelines.

**Stephen DGS:** Treatment options for difficult fractures: A new technology symposium”, Toronto, Ontario, March 2005. Principles of management of periprosthetic fractures.

**Stephen DGS:** Sixth Annual Chicago Trauma Symposium, Chicago, Illinois, August 2004. Resuscitation in pelvic ring disruptions.

**Stephen DGS:** AO ASIF Advanced Symposium - Solutions Course for Fracture Fixation Problems, Hamilton, Bermuda, April 2005. Salvage of malunion/non union of the distal tibia - corrective techniques.

**Stephen DGS:** 10th Annual Orthopaedic Trauma Association Residents Basic Fracture Course, Fort Lauderdale, Florida, October 2004. The Femoral Neck Fracture: Young and Old.

**Whyne C:** Biomechanics of Cancer in the Bone IBBME Summer Student Research Seminar Series. Toronto, Ontario, June 2005.

**Whyne C:** Burst Fracture risk prediction in the metastatic spine. Toronto, Ontario., Breast Site Group TSRCC June 2005.

**Whyne C:** Locally minimally invasive surgical interventions in the metastatic spine. Oncology Grand Rounds. Toronto, Ontario, December 2004.

**Whyne C:** Percutaneous vertebroplasty in the metastatic spine. “Percutaneous vertebroplasty research group. TSRCC. Toronto, Ontario, November 2004.-

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A comparison of minimally invasive THA to standard approach THA - Clinical and Radiographic Outcomes. *Gollish JD, Kennedy DM, Nicholson S, Wilkes C: Orthopaedic and Arthritic Institute Research Fund (\$10,000 2004 - 2005).*

Activities following total hip arthroplasty - which are safe? *Weller I, Gollish JD, Kreder H, Schatzker J, Scafesi O, Payne N: University of Toronto - Zimmer Research Partnership Program (\$12,500 - 2004)*

Activities following total knee replacement: Which are Safe? *Weller I, Kreder HJ, Gollish G, Kennedy D: Canadian Orthopaedic Foundation (\$10,000 2004 - 2005).*

Application of photodynamic therapy in a canine model: determination of safety and efficacy of treatment. *Burch S, Bisland SK, Yee AJ, Yee AJ, Wilson BC: QLT Inc. (\$100,000 2004).*

A prospective study of biomechanically-based guidelines in metastatic burst fracture risk prediction. *Whyne C, Finkelstein J, Yee A, Roth S, Kreder HJ: Canadian Breast Cancer Research Alliance (\$330,421 2003 - 2006).*

A prospective study to determine the role of 2-[18F]fluoro-2-deoxy-D-glucose (FDG) Positron Emission Tomography (PET) in the Assessment of Regional Nodal Spread of Disease in Breast Cancer Patients. *Pritchard K, Shelley W, Julian J, Levine M, McCreedy D, Holloway C, Gulenchyn K: Ontario Clinical Oncology Group. Per case funding. (\$100,000 2004 - 2007).*

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 implications of metastatic disease in the spine: Evaluation of stability and tumor burden in a pre-clinical model. *Whyne, Cari and Yee, AJ(Co-PI), Joel Finkelstein (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).*

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. *Ed Chow, Co-Applicants: Andrea Bezjak, Michael Brundage, Mark Clemons, Jackson Wu, Albert JM Yee, Andrew Bottomley, Hoskin Peter, Galina Velikova: 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).*

Effect of environmental design on balance recovery: new approaches to preventing falls in older adults. *Maki BE, Zettel JL: Ontario Neurotrauma Foundation (Mentor-Student Program) (\$24,500 2004 - 2005).*

Evaluation of a preclinical model of vertebral metastasis; an in vivo study of the VX2 rabbit carcinoma. *Whyne CM, Yee AJ (Co-Investigator): Zimmer Grant 2004 Competition (Internal; Division of Orthopaedic Surgery, University of Toronto) (\$10,000 2005 - 2006).*

Evaluation of the practicality, safety and anti-tumor effectiveness of photodynamic therapy for treatment of tumours in vertebrae. *Brian C Wilson, Shane Burch, Stuart Bisland, Albert Yee (Co-Investigator), Joel Finkelstein: Canadian Institutes of Health Research CIHR (\$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).*

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).*

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 (Innovation Fund) (\$18,398,069 2004 - 2007).*

Innovative approaches to optimizing balance and mobility in older adults. *Maki BE, McIlroy WE, Fernie GR, Popovic M, Lui B, Fisher R: Canadian Institutes of Health Research (\$1,101,385 2002 - 2007).*

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).*

Laboratories and workspaces for scientists and graduate students engaged in the iDAPT research program at Toronto Rehabilitation Institute (tentatively approved: pending final administrative approval). *Fernie GR, Boutilier C, Bradley D, Colangelo A, Cott C, Davis A, Maki BE, McIlroy WE, McKeever P, Naglie G: Canadian Foundation for Innovation (Research Hospital Fund) (\$17,631,726 2004 - 2008).*

Lateral compression pelvic injuries : To Fix or Not to Fix? *Whyne C, Kreder HJ, Khoury A, Roth S, Bulmer B, Stephen DJG: University of Toronto, Zimmer Funds Competition (\$10,000 2004 - 2005).*

Mechanobiology of the intervertebral disc: the role of alpha-5 integrin on cell metabolism. *A Yee, C Whyne, B Yang: O&AI Research Grant (\$20,000 2004 - 2006)*

Photodynamic therapy for the treatment of metastatic breast carcinoma to the spine: Development and validation in a pre-clinical model. *Yee A, Finkelstein J, Burch S, Bisland S, Wilson B: Canadian Breast Cancer Foundation - Ontario Chapter (\$300,000 2004 - 2007).*

Prediction of burst fracture risk in the metastatic thoracic spine with finite element analysis (Extension). *Cari Whyne: NSERC (\$24,000 2004 - 2006)*

Predictors of disability outcomes following total knee revision arthroplasty. *Davis AE, Mahomed NN, Gross AE, Schemisch EH, Kreder HJ, Gollish JD et al: CIHR (\$80,290 2001 - 2004).*

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 2004 - 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. *David J.G. Stephen, MD, H. Kreder, MD, E. Schemitsch, MD, M. McKee, MD, B. Bulmer, PT: American Orthopaedic Foot and Ankle Society (AOFAS) (\$10,000 2005 - 2006).*

Quantifying the stability of lateral compression pelvic fractures. *Cari Whyne, Amal Khoury, Hans Kreder, Joel Finkelstein: O&AI Research Grant (\$20,000 2004 - 2006)*

Randomized controlled trial of LISS plate versus conventional fixation for supracondylar femur fractures. *Ross Leighton, MD, David J.G. Stephen, MD, Emil Schemitsch, MD, Hans J. Kreder, MD, Michael D. McKee, MD, Pierre Guy, MD, Rick Buckley, MD, Peter O'Brien, MD: AO International (\$250,000 2003 - 2005).*



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).*

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. *Dorcas Beaton, R. Richards, S. Hogg-Johnson: Research Advisory Council, 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 (Co-I), Finkelstein JA (Co-I): Zimmer Grant 2004 Competition (Internal; Division of Orthopaedic Surgery, University of Toronto) (\$10,000 2005 - 2006).*

## **Honours Received**

**Yee AJ:** Best Paper Award; University Health Network Research Day, Toronto, Ontario, October 2004.

**Finkelstein JA:** 2005 Walter C. MacKenzie - Scotiabank Fellowship, December 2004.

**Richards RR:** Nominated for College of Physicians and Surgeons of Ontario Council Award, January 2005.

**Schatzker J:** Adam Gruca Award for contributions to Orthopaedic Surgery and Trauma, The Polish Orthopaedic and Trauma Association, September 2004.

**Whyne C:** Canadian Breast Cancer Foundation Masters Fellowship (\$25,000), Fellowship Recipient: Michael Hardisty, Fellowship Supervisor: 2005

## **DIVISION OF PLASTIC SURGERY**

**Dr. O. Antonyshyn - Associate Professor**

**Dr. M. Beveridge - Assistant Professor**

**Dr. P. Binhammer - Lecturer**

**Dr. M.H. Brown - Assistant 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 - Associate Professor (Division Head)**

## **Publications**

**Armour A, Mainprize J, Fialkov J, Forrest C, Phillips J, Antonyshyn O:** Frontal sinus fracture outcomes: A ten year review. *Craniofacial Surgery X: Proceedings of the Xth International Congress of the International Society of Craniofacial Surgery* (K Salyer, ed). Medimond International Proceedings, Bologna, Italy: 2004: pp 309-312.

**Baxter N, Goel V, Semple JL:** Utilization and regional variation of breast reconstruction in Canada. *Plastic and Reconstructive Surgery*: January 2005: 115 (1): pp 338-9.

**Beveridge M, Howard A:** The burden of Orthopaedic Disease in Developing Countries. *Journal of Bone and Joint Surgery*: August 2004: 86: pp 1819-1822.

**Cartotto R, Gomez M, Leow M, Popovski K, Shankowsky HA, Tredget EE:** Silver sulfadiazine (SSD) does not cause early post burn leukopenia (EPBL): A prospective study. *Journal of Burn Care and Rehabilitation*: May 2005: 26: pp S90.

**Cartotto RC, Ellis S, Gomez M, Cooper A, Smith T:** High frequency oscillatory ventilation in burn patients with ARDS. *Burns*: August 2004: 30: pp 453-54.

**Cartotto RC, Ellis S, Smith T:** High frequency oscillatory ventilation in burn patients. *Critical Care Medicine*: April 2005: 33: pp S175-181.

**Choo R, Antonyshyn O, Woo T, Assaad D, Barnes E, 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, Physics*: June 2005: 62: pp 1096-1099.

**Cross KM, Hastings MA, Payette JR, Gomez M, Schattka BJ, Sowa MG, Leonardi L, Fish JS:** Near infrared point and imaging spectroscopy for burn depth assessment. *International Congress Series*: June 2005: 1281C: pp 137-142.

**Grover R, Nijhiwan N, Budning A, Antonyshyn O:** Functional Outcomes of post-traumatic enophthalmos correction. *Craniofacial Surgery X: Proceedings of the Xth International Congress of the International Society of Craniofacial Surgery* (K Salyer, ed). Medimond International Proceedings, Bologna, Italy: 2004: pp 313-315.

**Haber J, Hopman W, Gomez M, Cartotto R:** Late outcomes in adult survivors of Toxic Epidermal Necrolysis after treatment in a burn center. *Journal of Burn Care and Rehabilitation*: January 2005: 26: pp 33-41.

**Metcalfe KA, Semple JL, Narod SA:** Satisfaction with breast reconstruction in women with bilateral prophylactic mastectomy: A descriptive study. *Plastic and Reconstructive Surgery*: August 2004: 114 (2): pp 360-366.

**Metcalfe KA, Semple JL, Narod SA:** Time to reconsider subcutaneous mastectomy for breast cancer prevention? *Lancet Oncology*: June 2005: 6(6): pp 431-4.

**Mittmann N, Knowles SR, Gomez M, Fish J, Cartotto R, Shear NH:** Evaluation of the extent of serious adverse drug reactions: the care of toxic epidermal necrolysis. *Drug Safety*: July 2004: 27: pp 447-487.

**Moore GWK, Semple JL:** High Himalayan Meteorology: Weather at the South Col of Mount Everest. *Geophysical Research Letters*: September 2004: 31: pp L18109.

**Musgrave M, Pahuta M, Antonyshyn O:** Does surgical repair of enophthalmos require overcorrection? *Craniofacial Surgery X: Proceedings of the Xth International Congress of the International Society of Craniofacial Surgery* (K Salyer, ed). Medimond International Proceedings, Bologna, Italy: 2004: pp 317-319.

**O'Donovan D, Fialkov J, Binhammer P, Antonyshyn O:** Composite osseo-fascial free tissue transfer: An approach to total internal nasal reconstruction. *Craniofacial Surgery X: Proceedings of the Xth International Congress of the International Society of Craniofacial Surgery* (Salyer K, ed). Medimond International Proceedings, Bologna, Italy: 2004: pp 285-288.

**Semple JL, Woolridge N, Lumsden C:** In vitro, In vivo, In silico: Computational systems in tissue engineering and regenerative medicine - A Review. *Tissue Engineering*: March 2005: 11 (3-4): pp 341-56.

**Tan J, Banez C, Cheung Y, Gomez M, Nguyen H, Banfield J, Medeiros L, Lee R, Cartotto R, Fish JS:** Effectiveness of a burn prevention campaign for older adults. *Journal of Burn Care and Rehabilitation*: September 2004: 25: pp 445-451.

**Tan J, Nguyen H, Banez C, Cheung Y, Gomez M, Banfield J, Medeiros L, Lee R, Cartotto RC, Fish JS:** Effectiveness of a burn prevention campaign for older adults. *Journal of Burn Care and Rehabilitation*: September 2004: 25: pp 445-451.

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

**Antonyshyn O:** AO ASIF Advanced Symposium: Advances in the Management of Craniomaxillofacial Surgery, Whistler, British Columbia, February 2005. 1.) Cleft adult with midface deformity: Maxillary advancement and alternatives. 2.) Fireside Lecture: Aesthetic considerations in craniomaxillofacial surgery. 3.) Panel Discussion: Use of Alloplasts in Craniofacial Surgery.

**Antonyshyn O:** 3M Industry sponsored lecture, Toronto, Ontario, February 2005. Clinical applications of Imiquimod in Surgery.

**Antonyshyn O:** AO-ASIF Challenges and Advances in the Management of Craniomaxillofacial Surgery: Challenges of the Orbit., Baltimore, Maryland, April 2005. 1.) Coronal Incisions. 2.) Periorbital soft tissue problems.

**Antonyshyn O:** AO Basic Principles: Facial, Head and Neck Surgery Course, Gauteng, South Africa, November 2004. 1.) Management of soft tissue injuries in facial trauma. 2.) Advances in the Management of Craniomaxillofacial Surgery, Whistler, British Columbia, February 2005. Panel Discussion: Enophthalmos correction. 3.) Midface post-traumatic deformities: Treatment. 4.) Naso-ethmoid and orbital fractures: Diagnosis and repair. 5.) South Africa, November 2004. Surgical approaches to the midface.

**Antonyshyn O:** AO ASIF Principles of operative treatment of craniomaxillofacial trauma and reconstruction, Vancouver, British Columbia, December 2004. Nasal and NOE fractures.

**Antonyshyn O:** Advanced Digital Technology in Head & Neck Reconstruction, Banff, Alberta, March 2005. 1.) Panel discussion: Research, development and convergence: What will the future look like? 2.) Keynote Lecture: The future of advanced materials in head and neck reconstruction.

**Beveridge M:** International Medical School, Phnom Penh, Cambodia, November 2004. Burn Care in Cambodia.

**Beveridge M:** Association of Surgeons of Great Britain and Ireland, Oxford, United Kingdom, September 2004. Consensus meeting on overseas training.

**Beveridge M:** 16th Annual Trauma and Dissociation Conference, Ottawa, Ontario, June 2005. Trauma and Trauma: Is violence a communicable disease?

**Brown MH:** Inamed Aesthetics, New Orleans, Louisiana, April 2005. 410 Cohesive Gel implant investigator meeting.

**Brown MH:** Think Pink, Montreal, Quebec, March 2005. Breast Reconstruction.

**Brown MH:** Beth Shalom Synagogue, Toronto, Ontario, October 2004. Current trends in plastic surgery.

**Brown MH:** Health Canada, Ottawa, Ontario, March 2005. Medical Expert Advisory Panel - Silicone gel breast implants.

**Brown MH:** Federal Justice Department, Montreal, Quebec, June 2005. Silicone gel breast implant Class Action lawsuit.

**Brown MH:** The Ontario Peri-Operative Nurses Association, Toronto, Ontario, October 2004. Peri-Operative management of the breast reconstruction patient.

**Brown MH:** Cosmetic Enhancement & Anti-Aging Show, Toronto, Ontario, April 2005. What's new in plastic surgery?

**Cartotto, RC:** American Burn Association, Chicago, Illinois, May 2005. American Burn Association Multi-Center Clinical Trials Group: A proposal for a multi-center prospective randomized trial of IVIG vs. placebo for Toxic Epidermal Necrolysis.

**Cartotto, RC:** Blake Medical Centre, West Bradenton, Florida, March 2005. Up-date on burn care.

**Semple JL:** Breast Site Group Presentation, Toronto, Ontario, October 2004. Breast reconstruction.

**Semple JL:** University of Calgary, Calgary, Alberta, September 2004. 1) "Breast reconstruction; New trends and outcomes". 2) "High impact storms on Mount Everest: Into thin air revisited".

**Semple JL:** VI World Congress on Mountain Medicine & High Altitude Physiology, Xining, P.R. China, August 2004. Weather and death on Mount Everest: An analysis of high impact storms at extreme altitude.

## **Research and Investigations**

*Senior Investigator's Name Appears in Italics*

Advanced Regenerative Tissue Engineering Centre (ARTEC). *Semple JL*, Woodhouse K, Sefton M, Shoichet M, Dumont D, Midha R, Fish J: *Ontario Research Development Challenge Fund (ORDCF)* (\$12,568,500 2003 - 2008).

Evaluation of castor bean polyurethane as a bone substitute in rabbit calvarial defects. *Fialkov JA: The Physicians' Services Incorporated Foundation* (\$20,000 2004 - 2005).

Implant modeling and rapid prototyping in facial asymmetry correction. *Antonyshyn O*, Edwards G, Mainprize M: *Stryker/Leibinger Incorporated* (\$38,500 2002 - 2004).

Inhibition of Prostate Carcinogenesis in the *Lady* TRAMP mice by the administration of antioxidants in the diet-Protein profiling by SELDI mass spectrometry. *Venkateswaran V: Dean's Fund* (\$9,950 2004 - 2005)

Near infrared spectroscopy fore Evaluation of burn depth. *Fish J.S.*, 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).

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. *Semple JL, Metcalfe K, Hollowa C: Canadian Breast Cancer Foundation* (\$183,168 2004 - 2007).

**Honours Received**

**Beveridge M:** Fellowship of the College of Surgeons of East, Central and Southern Africa, April 2005.

**Gomez M:** Best Poster in the Reconstruction Section, May 2005.

**Gomez M:** Carl A. Moyer Resident Award to the Best Research Paper (Co-Author), May 2005.

## **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**

**Abdelmoshen K, Patak P, Von Montfort C, Melchheier I, Sies H, Klotz I:** Signaling effects of menadione: from tyrosine phosphatase inactivation to connexin phosphorylation. *Methods Enzymol*: July 2004: 378: pp 258-72.

**Bailey G, Herschorn S:** Urinary diversion. In: *Textbook of Neurogenic Bladder, Adults and Children* (Corcos, J, Schick E, eds). Martin Dunitz, London 2004.

**Baverstock R, Herschorn S:** Nocturia - Has your patient got it? *Canadian Journal of Diagnosis*: December 2004:

**Bissada NK, Herschorn S, Elzawahri A, Aboul Enein H, Ghoneim M, Bissada MA, Glazer AA, Finkbeiner A:** Urinary conduit formation using retubularized bowel from continent urinary diversion or intestinal augmentations: A multi-institutional experience. *Urology*: September 2004: 64: pp 485-487.

**Carroll PR, Chan JM, D'Amico AV, Gelmann EP, Iverson P, Klotz L, Nelson JB, Nelson PS, Nelson WG, Oh WK, Rosen N, Rubin MA, Sandler H, Sellers WR, Smith MR, Xu J, McNann MC, Kantiff PW:** Fourth International Conference on Innovations and Challenges in Prostate Cancer: Prevention, Detection and Treatment. *Journal of Urology*: November 2004: 172(5): pp S3-5.

**Choo R, Klotz L, Deboer G, Danjoux C, Morton GC:** Wide variation of prostate-specific antigen doubling time of untreated, clinically localized, low-to-intermediate grade, prostate carcinoma. *British Journal of Urology*: August 2004: 94(3): pp 295-8.

**Choo R, Thomas G, Woo T, Lee D, Kong B, Iscoe N, Danjoux C, Klotz L, Morton G, Chander S:** Long-term outcome of postorchietomy surveillance for Stage I testicular seminoma. *International Journal of Radiation Oncology, Biology, Physics*: March 2005: 61(3): pp 736-40.

**Corcos J, Collet JP, Shapiro S, Herschorn S, Radomski SB, Schick E, Gajewski JB, Benedetti A, MacRamallah E, Hyams B:** Multicenter randomized clinical trial comparing surgery and collagen injections for treatment of female stress urinary incontinence. *Urology* 2005: 65: pp 898-904.

**Gray RE, Klotz LH:** Restoring sexual function in prostate cancer patients; an innovative approach. *Canadian Journal of Urology*: July 2004: 11(3): pp 2285-9.

**Herschorn S:** Current use of injectable agents for female stress urinary incontinence. *Reviews in Urology* 2005: 7(1) pp 12-21.

**Herschorn S, Becker DL, Miller B, Thompson MF, Forte L:** The Impact of a Health Education Intervention in Overactive Bladder Patients. *Canadian Journal of Urology*: December 2004: 11: pp 2430-2437.

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**Klotz L:** Bladder cancer markers. *Canadian Journal of Urology*: December 2004: 11(6): pp 2426.

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**Klotz L:** Live Donor Nephrectomy. *Canadian Journal of Urology*: February 2005: 12: 1: pp 25.

**Klotz L:** Active surveillance with selective delayed intervention: Using natural history to guide treatment in good risk prostate cancer. *Journal of Urology*: November 2004: 172(5 Pt 2): pp S48-50.

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**Venkateswaran V, Fleshner N, Klotz L:** Synergistic effect of vitamin E and selenium in human prostate cancer cell lines. *Prostate Cancer Prostatic Disease*: July 2004: 7(1): pp 54-56.

**Venkateswaran V, Fleshner, N, Sugar I, Klotz L:** Antioxidants block prostate cancer in lady transgenic mice. *Cancer Research*: August 2004: 64(16): pp 5891-5896.

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

**Carr LK:** St. Joseph's Hospital, Gynecology Grand Rounds, Toronto, Ontario, November 2004. Diagnosis and management of interstitial cystitis.

**Carr LK:** Canadian Urology Association, Ottawa, Ontario, June 2005. Moderator incontinence/neurology podium session.

**Carr LK:** American Urologic Association, San Antonio, Texas, May 2005. Moderator : Urinary incontinence podium session.

**Herschorn S:** Canadian Urological Association, Ottawa, Ontario, 2005. Moderator : Session on endourology/incontinence.

**Herschorn S:** Current Problems in Urology in collaboration with University of Montreal, Mont Tremblant, Quebec, January, 2005. Workshop on Urinary Incontinence.

**Herschorn S:** Kelowna area physicians, Kelowna, British Columbia, September 2004. 1.) Update on the management of overactive bladder; 2.) A practical approach to the management of urinary incontinence.

**Herschorn S:** North Bay General Hospital, North Bay, Ontario, July 2004. Demonstration and teaching of obturator approach for female stress incontinence and perineal sling for male stress incontinence.

**Herschorn S:** Surrey Memorial Hospital, Surrey, British Columbia, December 2004. Demonstration and teaching of obturator sling for female stress urinary incontinence.

**Herschorn S:** QUEST 2005 - Queen's University Annual Senior Urology Residents Review Course, Kingston, Ontario, February, 2005. Urodynamics.

**Herschorn S:** Satellite symposium at the International Society of Urology Meeting, Honolulu, Hawaii, October 2004. Evolution of the transobturator procedure in women: Have we made a true advancement?

**Herschorn S:** Thunder Bay Regional Health Sciences Centre, Thunder Bay, Ontario, November 2004. Demonstration and teaching of obturator sling for female stress urinary incontinence.

**Herschorn S:** International Continence Society Meeting, Paris, France, August 2004. 1.) Workshop on spinal cord injury neurogenic bladder 2.) From the first day to the end of spinal shock. 3.) Autonomic dysreflexia.

**Herschorn S:** International Society of Urology Meeting, Honolulu, Hawaii, October 2004. Moderator session on superficial bladder cancer.

**Herschorn S:** Toronto area urologists, Toronto, Ontario, November 2004. Update on the management of overactive bladder.

**Herschorn S:** Visiting Professor Division of Urology University of British Columbia, Vancouver, BC, Mar 29, 2005 - Mar 30, 2005. 1.) Resident session urinary incontinence and reconstruction; 2.) Guest speaker UBC Bladder Care Centre Symposium and opening - Surgical treatment of stress urinary incontinence.

**Klotz LH:** European Association of Urology, Istanbul, Turkey, March 2005. Role of frozen section in urologic oncology.

**Kodama RT:** American Urological Society, San Francisco, May 2005. Penis/Testis/Urethra: Benign and Malignant Disease

**Nam RK:** Mexican Urology Association, Cancun, Mexico, April 2005. Hormonal therapies for prostate cancer and radical prostatectomy.

## **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. *Sharon Sharir and Debbie Miller, Margaret I. Fitch: PBR Award - Sunnybrook and Women's (\$14,259 2005 - 2007).*

A Randomized Multicentre 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).*

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).*

Biomarker discovery in the transgenic mouse prostate cancer prevention model. *Vasundara Venkateswaran, Laurence Klotz, Neil Fleshner, Linda Sugar: 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).*

Effect of intermittent vs continuous androgen suppression on bone loss and body composition in a phase 3 randomized trial, Project # 02OCT0203. *Klotz L, Gleave M: Ontario Cancer Research Network (\$540,000 2003 - 2006).*

Effect of intermittent vs continuous androgen suppression on bone loss and body composition in a phase 3 randomized trial (02-OCT-0203 OCRN). *Klotz, LH, 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).*

Fluorescence-guided radical prostatectomy. *Trachtenberg J, Wilson BC, Sharir S, Bogaards A, Evans AJ: Canadian Prostate Cancer Research Initiative (\$49,951 2003 - 2004).*

Fluorescence-guided radical prostatectomy. *Trachtenberg J, Sharir S, Evans AJ, Bogaards A, Wilson BC: Prostate Cancer Research Foundation of Canada (\$49,968 2003 - 2004).*

IGF-1 and HGPIN. *Nam R (P.I.), Narod S, Pollak M, Klotz L, Fleshner N, Jewett M, Fleshner N: Prostate Cancer Research Foundation (\$50,000 2004 - 2005).*

Inhibition of prostate carcinogenesis in the *Lady* TRAMP mice by the administration of antioxidants in the diet-Protein profiling by SELDI mass spectrometry. *Venkateswaran V: Dean's Fund (\$9,950 2004 - 2005).*



- Intravesical botox for the Management of refractory neurogenic urge incontinence. *Herschorn S, Carr LK: Allergan* (\$10,000 2005).
- Muscle cell mediated therapy for stress urinary incontinence: A Phase 1 Trial. *Carr LK: Cook Myosite* (\$100,000 2003 - 2005).
- Noninvasive 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).
- Oxidative stress and prostate cancer risk. *Nam R(P.I.), Narod SA: J.P. Bickell Foundation* (\$50,000 2004 - 2005).
- Prospective evaluation of prostate biopsies for prostate cancer detection. . *Nam R (P.I.), Narod S, Trachtenberg J, Klotz L, N Fleshner N, Jewett M, Sugar L, Toi A, Diamandis E: National Cancer Institute of Canada* (\$410,070 2004 - 2007).
- Quantification of the effect of brachytherapy on the lower urinary tract using urodynamic study in prostate cancer patients undergoing brachytherapy. *Choo R, Morton G, Herschorn S, Pignol JP, Loblaw A: Amersham* (\$30,000 2003 - 2004).
- Randomized trial of pentosan polysulfate in the treatment of patients with interstitial cystitis. *Herschorn, S: Ortho McNeill* (\$40,000 2004 - 2005).
- Randomized trial of zidex and collagen in the treatment of female stress urinary incontinence. *Herschorn, S: Q-med, Stockholm, Sweden* (\$30,000 2004 - 2005).
- SELECT Trial: (Vitamin E and selenium for prevention of prostate cancer: A randomized trial. *Coltman C, Klotz LH: NIH* (\$170,000,000 1999 - 2009).

### **Honours Received**

**Nam RK:** A.W. Bruce Undergraduate Teaching Award, Division of Urology, University of Toronto, June 2005.

### **DIVISION OF VASCULAR SURGERY**

**Dr. D.S. Kucey - Assistant Professor**

**Dr. R. Maggisano - Assistant Professor (Division Head)**

**Laura Tate** - Surgeon-in-Chief



## **Division Heads**

**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 21 Active surgeons including three Urologists, six Orthopedic Surgeons, eight General Surgeons including two thoracic and two vascular surgeons: four Plastic Surgeons and one consulting Neurosurgeon Dr. Fred Gentili.

## **Changes**

This has been a relatively stable year for the Surgery Department at the Toronto East General Hospital. With a strong Anaesthesia department and available OR structural capacity, we have been able to respond to the Ministry's focus on reducing wait times in both cancer care and total joint replacements.



Along these lines we welcome Dr. Frank Mastrogiacomo to the Division of Orthopedics. Frank is a graduate from the University of Toronto Orthopedic Program and has a PHD in Neuropharmacology. He recently completed a Lower Extremity fellowship with Dr. Allan Gross, Mount Sinai.

Dr. Harold Hall, Plastic Surgeon, moved to Courtesy Staff in December 2004.

Dr. Brett Beber joined our active staff in January 2005. Brett is a graduate from the University of Toronto Plastic Surgery Program with an interest in breast reconstruction and teaching.

Teaching has always been one of our strong points here at TEGH. Dr. Paul Bernick and Dr. Bill Kramer had the highest scores in the U of T Dept of Surgery Teaching Effectiveness Scores, this year.

## **General Surgery**

Dr. P. Bernick - Assistant Professor

Dr. T. Gilas - Assistant Professor

Dr. R. Mackenzie - Assistant Professor, (Program Medical Director Ambulatory Care)

Dr. P. Sullivan – Lecturer

Dr. R. Zeldin – Assistant Professor (Division Head)

## **Awards**

**Paul E Bernick**, Who's Who in Medical Science Education WWMSE, December 2004.

## **Orthopedics**

Dr. M. Catre - Lecturer

Dr. W. Kraemer - Lecturer

Dr. G. Maistrelli - Associate Professor (Division Head) (Medical Director)

Dr. F. Mastrogiacomo

Dr. P. Weiler - Assistant Professor

Dr. P. Wong – Lecturer

## **Presentations**

### **Dr. Gianni Maistrelli**

- 1). ISTA Annual meeting, Rome Italy, Sep 23,2004-Sep 27,2004. International Society of Technology in Arthroplasty 1] Unicompartamental knee Arthroplasty Back to the Future 2]MIS in Unicompartamental Knee Replacement Technique and Indications.
- 2). Ospendale Fatebenefratelli, Rome, Italy Sep 28, 2004. New Techniques in Hip/Knee Arthroplasty
- 3). Dubai Knee Symposium, Dubai, United Arab Emirates. Mar 19, 2005. Minimal Invasive Techniques in Knee Arthroplasty.
- 4). Knee Arthroplasty Instrucional Course, Treviso, Italy, Apr 9, 2005. State of the Art in MIS Knee Arthroplasty.
- 5). Catholic University of Rome Visiting Professor, Rome, Italy, Apr 15, 2005. Lecture: Past and Future Trends in Unicompartamental Knee Arthroplasty.

## **Plastic Surgery**

Dr. B. Beber

Dr. M. Dupere

Dr. A. Kesarwani (Division Head)

Dr. L. Tate - Lecturer, (Chief of Surgery), (Program Medical Director Surgical Services)

## **Awards**

**Dr. Laura Tate**, John H. Fowler Resident Teaching Award, Toronto East General Hospital

## **Thoracic Surgery**

Dr. Carmine Simone

Dr. Rob Zeldin - Assistant Professor, (Division Head of General Surgery), (Medical Director, Regional Chair Ontario Society Thoracic Surgeons).

## **Presentations**

### **Dr. Rob Zeldin**

- 1). Canadian Association of Thoracic Surgeons, Ottawa, Ont., Sep 11, 2004. Regionalization of Thoracic Surgery: Pro and Con.
- 2). Annual Toronto Refresher Course, Toronto, Ont., May 27, 2005. Chest Wall Resection and Reconstruction.

## **Urology**

Dr. John Kell

Dr. Robert MacMillan - Assistant Professor

Dr. Rajiv Singal - Lecturer (Division Head)

## **Vascular Surgery**

Dr. Vern Campbell - Lecturer

Dr. Wayne Tanner - Lecturer

**Bryce Taylor** - Surgeon-in-Chief



### ***Division Heads***

**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 University Health Network Department of Surgery was reviewed in the 2004-05 academic year, and the assessment by Drs. Stewart Hamilton and Hartley Stern was very favourable. The reviewers stated “the clinical programs, undergraduate and resident education and research are all flourishing. An excellent document summarizing the research activities of the surgical faculty demonstrated an extensive research enterprise, consisting of total funding of more than \$32M with a higher citation index factor than the Mayo Clinic”. The reviewers felt that the eight divisions in surgery were achieving at a high level, in all domains.

Previous UHN planning had led to the development of seven program groupings, with the Divisions of Surgery all intimately involved in one or more of these groupings. Specifically, surgeons participate in the Heart and Circulation Program (Cardiac Surgery and Vascular Surgery), Transplantation (General Surgery, Urology, Cardiac Surgery, Thoracic Surgery), Oncology and Blood Disorders (General Surgery, Neurosurgery, Plastic Surgery, Urology, Thoracic Surgery), Neural and Sensory Sciences (Neurosurgery), Musculoskeletal Health and Arthritis (Orthopedics, Plastic Surgery), Advanced Medicine and Surgery (General Surgery, Urology, Thoracic Surgery, Plastic Surgery), and Community and Population Health (General Surgery, Thoracic Surgery and Urology in the Minimally Invasive Surgery element).

Surgical Services at UHN, which included the additional Departments of Otolaryngology/Head and Neck Surgery, Ophthalmology, Gynecologic Oncology and Anesthesia, engaged this year in a strategic planning process entitled “Global Impact - Local Accountability”. This was an extremely valuable exercise whereby clinical “gaps” between our current activities and global benchmarks were articulated, and strategies proposed to ultimately close those gaps. By the end of the academic year, a planning document with clear objectives and timelines was circulated for feedback and ultimately, implementation.

In March 2005, all elective surgical procedures at UHN were recorded on an electronic form for the purposes of wait time capture in compliance with the provincial initiative led by Dr. Alan Hudson. This will undergo a number of modifications so that more accurate data will consistently be available.

Recruitment of four outstanding surgeons enriched the academic family at UHN. Dr. Mojgan Hodaie was recruited in the Functional Neurosurgery area and will be a tremendous asset to that program in collaboration with Dr. Andres Lozano. Dr. Claude Burul was recruited to the Division of General Surgery at the Toronto Western site, providing experienced clinical contributions along with a very positive educational track record. Dr. Marc de Perrot returned to the Thoracic Division with special expertise in transplantation and surgical oncology, having trained in both Toronto and Europe. Finally, Dr. Tony Finelli was appointed to the Division of Urology with outstanding abilities in minimally invasive uro-oncology. He returned after excellent fellowship training at the Cleveland Clinic.

For the July 2004 round of promotions, Drs. Vivek Rao and Tom Waddell were promoted to Associate Professor and Drs. Mingyao Liu, David McCready and Glenn Regehr were promoted to Full Professor.

For July 2005, Drs. David Urbach and Herb von Schroeder were promoted to Associate Professor, and Drs. Mark Cattral, Karen Davis and Fred Gentili to Full Professor.

During the year, Dr. Vivek Rao was appointed to the DeGasperi Chair in the Surgical Management of Heart Failure, and Dr. David Urbach to the Tyco Chair in Minimally Invasive Surgery. These two chairs constituted the 17<sup>th</sup> and 18<sup>th</sup> Endowed Chairs in Surgical Services, attesting to the generosity of donors, and to the recognition that retention and recruitment are critical to our academic success.



Department members continue to play important roles in the management of surgical education and also have achieved solid student and resident evaluations, in their day-to-day teaching. Drs. Dimitri Anastakis and Stephanie Brister are Clerkship Co-ordinators, Dr. Tom Lindsay the Undergraduate Co-ordinator, and Dr. Fred Gentili the Director of Surgical Education for UHN.

A year-end evaluation of the educational activities in the Department of Surgery declared “the Department of Surgery has invested heavily over the years in the development of an infrastructure that facilitates the delivery of education at all levels. This is strongest at the undergraduate level but is still very strong at the residency and fellowship education level. It has invested heavily in educational scholarship and continuing education”. The review specifically states “in addition to the large quantity of undergraduate teaching, the quality appears to be extremely high. On all dimensions UHN does well and consistently has received excellent scores for undergraduate education. In addition, UHN has undertaken to evaluate all of the seminars that are offered at the clerkship level and across the board, lectures have received a mean of 4.6 and 4.3 for years 3 and 4 respectively on a scale of 1 to 5. This reflects the delivery of an excellent seminar program to undergraduate students”.

In the area of educational scholarship, the review stated “it is arguably true that the Department of Surgery at UHN has one of the largest programs in educational scholarship in the world. It is active as a participant in the Centre for Research in Education, participates strongly in the Surgical Skills Laboratory that runs out of Mount Sinai Hospital, and has been very productive from an academic sense of attracting peer-reviewed funding in education and in performing graduate education. Without a doubt this is a major area of strength for the department at UHN”.

In the research domain, UHN surgeons have been extremely active. In the last year, a total of \$34.6M of funding was secured, distributed throughout the eight divisions. A bibliometric analysis demonstrated both volume and quality of publications, and comparisons with the Mayo Clinic were extremely favourable in every division, both from the standpoint of numbers and from number of papers cited.

The division at greatest risk during the academic year was Vascular Surgery. The three remaining members of this group continue to be the most academically productive vascular surgeons in Canada, but the departure of one surgeon and the delayed implementation of the Wright Review, has placed great pressures on the entire organization. Both the vascular surgeons and management continue to work with the other T.A.H.S.N hospitals and the Ministry of Health, to solve the ongoing vascular issues in the GTA.

In summary, the members of the Divisions of Surgery at UHN, have continued to be extremely productive clinically and academically, in the face of persistent challenges in the health care system.



## **DIVISION OF CARDIAC SURGERY**

**Dr. M.A. Borger - Assistant 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. J. Ivanov - Assistant 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**

**Al-Omran M, Verma S, Lindsay TF, Weisel RD, Sternbach Y:** Clinical decision making for endovascular repair of abdominal aortic aneurysm. *Circulation*: December 2004: 110: pp e517-e523.

**Al-Radi OO, Austin PC, Tu JV, David TE, Yau T:** Repair versus replacement for ischemic mitral regurgitation. *Annals of Thoracic Surgery*: April 2005: 79(4): pp 260-7.

**Angoulvant D, Fazel S, Li R-K:** Neovascularization derived from cell transplantation in ischemic myocardium. *Molecular and Cellular Biochemistry*: October 2004: 264: pp 133-142.

**Borger MA:** Preventing stroke during coronary bypass: Are we focusing on the wrong culprit? *Journal of Cardiac Surgery*: January 2005: 20: pp 58-9.

**Borger MA, David TE, Doll N, Mohr FW:** Intraoperative fracture of the right coronary artery: recognition and management. *Annals of Thoracic Surgery*: February 2005: 79(2): pp 693-6.

**Borger MA, Preston M, Ivanov J, Fedak PW, Davierwala P, Armstrong S, David TE:** Should the ascending aorta be replaced more frequently in patients with bicuspid aortic valve disease? *Journal of Thoracic and Cardiovascular Surgery*: November 2004: 128(5): pp 677-83.

**Brister SJ:** Does gender influence the management of patients with stable angina? In: *Medicographia* 82. *Stable Angina and If Inhibition: New Insights and Applications* Servier International, Medical Publishing Division, Neuilly sur Siene Cedex, France: 2005: pp 64-65.

**Bucerius J, Gummert JF, Walther T, Borger MA, Doll N, Falk V, Mohr FW:** Impact of off-pump coronary bypass grafting on the prevalence of adverse perioperative outcome in women undergoing coronary artery bypass grafting surgery. *Annals of Thoracic Surgery*: March 2005: 79: pp 807-12.

**Butany J, El Demellawy D, Collins MJ, Israel NS, Graba J, David TE:** A large left atrial myxoma. *Journal of Cardiac Surgery*: November 2004: 19(6): pp 547-51.

**Butany J, El Demellawy D, Collins MJ, Nair V, Graba J, Taebong C, David TE:** Ascending aortic aneurysm with dissection and aortic insufficiency. *Journal of Cardiac Surgery*: January 2005: 20(1): pp 85-9.

**Butany J, Nair V, Ahluwalia M, Woo A, Graba J, David TE:** Honeycomb-like healed abscess: an unusual complication of infective endocarditis. *Journal of Cardiac Surgery*: January 2005: 20(1): pp 81-4.

**Butany J, Nair V, Ahluwalia MS, Demellawy DE, Rao V, Ross H:** Hypersensitivity myocarditis complicating hypertrophic cardiomyopathy heart - A case report. *Canadian Journal of Cardiology*: July 2004: 20: pp 911-914.

**Butany J, Naseemuddin A, Nair V, Feindel CM:** DeBakey Surgitool mechanical heart valve prosthesis, explanted at 32 years. *Cardiovascular Pathology*: December 2004: 13(6): pp 345-6.

**Chamchad D, Karski J, David TE, Djaiani G, Butany J:** Chronic paravalvular abscess after aortic valve replacement. *Journal of Cardiovascular and Vascular Anaesthesia*: December 2004: 18(6): pp 820-1.



**David TE:** Artificial chordae. *Seminars in Thoracic and Cardiovascular Surgery*: July 2004: 16(2): pp 161-8.

**David TE:** Is prosthesis-patient mismatch a clinically relevant entity? *Circulation*: June 2005: 111: pp 3186-7.

**David TE:** Surgery of the aortic root and ascending aorta. In: *Surgery of the Chest* (Sellke FW, del Nido PJ, Swanson SJ, eds). Elsevier Inc., Philadelphia: 2005: pp 1115-1135.

**David TE, Feindel CM, Ivanov J, Armstrong S:** Aortic root replacement in patients with previous heart surgery. *Journal of Cardiac Surgery*: July 2004: 19(4): pp 325-8.

**de Oliveira NC, David TE, Armstrong S, Ivanov J:** Aortic and mitral valve replacement with reconstruction of the intervalvular fibrous body: An analysis of clinical outcomes. *Journal of Thoracic and Cardiovascular Surgery*: February 2005: 129(2): pp 286-90.

**Delgado D, Miriuka SG, Cusimano RJ, Feindel CM, Rao V, Ross HJ:** Use of basiliximab and cyclosporine in heart transplant patients with preoperative renal dysfunction. *Journal of Heart Lung Transplantation*: February 2005: 24: pp 166-169.

**Djaiani G, Fedorko L, Borger MA, Mikulis D, Carroll J, Cheng DC, Karkouti K, Beattie WS, Karski J:** Mild to moderate disease of the thoracic aorta and new ischemic brain lesions after conventional coronary artery bypass graft surgery. *Stroke*: August 2004: 35: pp e356-8.

**Doenst T, Borger MA, David TE:** Long-term results of bioprosthetic mitral valve replacement: The pericardial perspective. *Journal of Cardiovascular Surgery*: October 2004: 45(5): pp 449-454.

**Doenst T, Velazquez EJ, Beyersdorf F, Michler R, Menicanti L, DeDonato M, Gradinac S, Sun B, Rao V for the STICH Investigators:** To STICH or not to STICH - We know the answer, but do we understand the question? *Journal of Thoracic and Cardiovascular Surgery*: February 2005: 129: pp 246-249.

**Fazel S, Angoulvant D, Deasi N, Yang S, Weisel RD, Li RK:** Cardiac restoration: Frontier or fantasy? *Canadian Journal of Cardiology*: March 2005: 21(4): pp 355-9.

**Fazel S, Angoulvant D, Weisel RD:** Autologous peripheral blood stem cells transplantation for myocardial regeneration: A novel strategy for cell collection and surgical injection. *Annals of Thoracic Surgery*: November 2004: 78 (5): pp 1812-13.

**Fazel S, Borger MA, Weisel RD, Cohen G, Pelletier M, Rao V, Yau TM:** Myocardial protection in reoperative coronary artery bypass grafting: Toward Decreasing Morbidity and Mortality. *Journal of Cardiac Surgery*: July 2004: 19: pp 291-295.

**Fazel S, Fedak P, Weisel RD, Angoulvant D, Yau TM, Li R-K:** Cell transplantation: The new frontier. In: *Cardiovascular Genomics* (Raizada MK, Paton JFR, Katovich MJ, Kasparov S, eds). The Humana Press Inc., Totawa: 2005: pp 325-343.

**Fazel S, Tang GH, Angoulvant D, Cimini M, Weisel RD, Li R-K, Yau TM:** Current status of cellular therapy for ischemic heart disease. *Annals of Thoracic Surgery*: June 2005: 79: pp 2238-2247.

**Fazel S, Weisel RD, Verma S:** A novel technique to assess flow-mediated vasodilation. *Journal of the American College of Cardiology*: October 2004: 44: pp 1478-1480.

**Fedak PW, David TE, Borger M, Verma S, Butany J, Weisel RD:** Bicuspid aortic valve disease: recent insights in pathophysiology and treatment. *Expert Review Cardiovascular Therapy*: March 2005: 3(2): pp 295-308.

**Fedak PWM, Rao V, Verma S, Ramzy D, Tumiati L, Miriuka S, Boylen P, Weisel RD, Feindel CM:** Combined endothelial and myocardial protection by endothelin antagonism enhances transplant allograft. *Journal of Thoracic and Cardiovascular Surgery*: February 2005: 129 (2): pp 407-415.

**Fedak PWM, Smookler D, Kassiri Z, Ohno N, Leco K, Verma S, Mickle DAG, Watson KL, Hojilla CV, Cruz W, Weisel RD, Li R-K, Khokha R:** TIMP-3 Deficiency Leads to Dilated Cardiomyopathy. *Circulation*: October 2004: 110 (16): pp 2401-9.

**Fedak PWM, Verma S, Weisel RD, Li R-K:** Cardiac remodeling and failure: From molecules to man (Part I). *Cardiovascular Pathology*: January 2005: 14(1): pp 1-11.

**Fedak PWM, Verma S, Weisel RD, Li R-K:** Cardiac remodeling and failure: From molecules to man (Part II). *Cardiovascular Pathology*: April 2005: 14(2): pp 49-60.

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**Tang GHL, Fazel S, Weisel RD, Van Arsdell GS, Li RK:** Cardiovascular tissue engineering therapy: So near, so far? *Annals of Thoracic Surgery*: June 2005: 79(6): pp 1831-1833.

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**Wang C-H, Li S-H, Weisel RD, Fedak PW, Hung A, Li R-K, Rao V, Hyland K, Cherg W-J, Errett L, Leclerc Y, Bonneau D, Latter D, Verma S:** Tetrahydrobiopterin deficiency exaggerates intimal hyperplasia after vascular injury. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*: March 2005: pp Epub.

**Yang S, Fazel S, Angoulvant D, Weisel RD, Li R-K:** Cell transplantation for heart disease: The clinical perspective (Guest Editorial). *Evidence-Based Cardiovascular Medicine*: March 2005: 9: pp 2-7.

**Yasuda T, Weisel RD, Kiani C, Mickle DAG, Maganti M, Li R-K:** Quantitative analysis of survival of transplanted smooth muscle cell with real time PCR. *Journal of Thoracic and Cardiovascular Surgery*: April 2005: 129: pp 901-911.

**Yau TM, Li G, Zhang Y, Weisel RD, Mickle DAG, Li RK:** Vascular endothelial growth factor receptor unregulation In response to cell-based angiogenic gene therapy. *Annals of Thoracic Surgery*: June 2005: 79(6): pp 2056-63.

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

**Borger MA:** Japanese Circulation Society 69th Annual Meeting, Yokohama, Japan, March 2005. 1.) Aortic valve repair surgery. 2.) Hemodynamic benefits of stentless tissue valves.

**Borger MA:** Edwards Lifesciences Cardiac Surgery Residents' Program, Irvine, California, October 2004. 1.) Aortic valve replacement with Perimount Magna valve; 2.) Mitral valve repair for degenerative disease: Techniques and outcomes; 3.) Mitral valve replacement with Perimount valve.

**Borger MA:** Society of Cardiovascular Anesthesiologists 10th Annual Update on Cardiopulmonary Bypass, Snowmass, Colorado, March 2005. 1.) Issues in mitral valve heart failure. 2.) The tricuspid valve: Repair or leave it alone? 3.) Aortic valve replacement and repair.

**Borger MA:** Marfan's Society of Canada, Calgary, Alberta, June 2005. Aortic valve sparing operations in Marfan's patients.

**Borger MA:** Canadian Cardiovascular Society Workshop, Calgary, Alberta, October 2004. 1) Ischemic mitral regurgitation: Surgical options. 2) Valve replacement options and patient selection: A surgeon's perspective.

**Borger MA:** 3rd Mulu Rafflesia Heart Valve Symposium: The Mitral Valve Revisited., Chiang Mai, Thailand, September 2004. Long-term results of bioprosthetic aortic and mitral valve replacement.

**Borger MA:** Medtronic Symposium at AATS Meeting, San Francisco, California, April 2005. Long-term results of tissue aortic valve replacement.

**Borger MA:** American Association of Thoracic Surgeons, Postgraduate Course, San Francisco, California, April 2005. Management of patients with bicuspid aortic valve disease.

**Borger MA:** Sacramento Cardiology Society, Sacramento, California, June 2005. Tissue valve replacement: How young is too young?

**Borger MA:** Valve Surgery Outcomes and Options Meeting, Toronto, Ontario, October 2004. Twenty year results of the Hancock II valve.

**Borger MA:** Canadian Society of Echocardiography, King City, Ontario, April 2005. Understanding the mitral valve: From structure and function to surgical management.

**Borger MA:** St. Jude Medical Sales and Marketing Meeting, Vancouver, British Columbia, June 2005. What are surgeons looking for in a tissue aortic valve?

**Cusimano RJ:** Ontario Physicians Arrhythmia Management Meeting, Collingwood, Ontario, September 2004. Challenging OR Cases.

**David TE:** Medtronic Cardiac Surgery Resident's Program, Minneapolis, Minnesota, May 2005. 1) Functional anatomy of the aortic valve; 2) Functional anatomy of the mitral valve.

**David TE:** American College of Cardiology - 15th Congenital Heart Disease in the Adult, Toronto, Ontario, May 2005. Aortic valve sparing operations for aortic root aneurysm.

**David TE:** Visiting Professor, Universitetssykehuset Trondheim, Trondheim, Norway, June 2005. Live surgery: Aortic root replacement and aortic valve sparing operation with mitral valve repair.

**David TE:** The Society of Cardiac Surgeons, La Coruna, Spain, June 2005. Live surgery: aortic valve repair and replacement of the ascending aorta and arch, and lecture on "aortic valve sparing operations".

**David TE:** Heart Valve Club, Montreal Heart Institute, Montreal, Quebec, May 2005. Live surgery: aortic valve sparing operation and lecture: principles of aortic valve repair.

**David TE:** Carolina Valve Symposium, Greenville, NC, May 2005. Live surgery: aortic valve sparing procedure and aortic root replacement..

**Feindel CM:** Peak Performance XVII Conference - Medtronic, Lake Louise, Alberta, February 2005. Aortic Valve Repair.

**Feindel CM:** American Association for Thoracic Surgery, San Francisco, California, April 2005. 1) Off Pump CABG and On Pump CABG - Where do we stand in 2005? 2) April 2005. Session Chairman - Adult Cardiac Surgery Symposium. 3) When should we operate on valvular endocarditis?

**Li R-K:** ACC Toronto International Heart Failure Summit: From Pathophysiology to Clinical Practice in 2005, Toronto, Ontario, June 2005. Cardiovascular Regenerative Medicine (chair).

**Li R-K:** Paediatric Regenerative Medicine Symposium, The Hospital for Sick Children, Toronto, Ontario, May 2005. Cell Therapy for Myocardial Regeneration after Myocardial Infarction.

**Li R-K:** University of Guelph, Guelph, Ontario, September 2004. Cell Therapy to Repair Damaged Heart.

**Li R-K:** Heart Failure Colloquium, University of Western Ontario, London, Ontario, May 2005. Cell Transplantation to Restore Cardiac Function: Cells or Matrix.

**Li R-K:** SCBA International Symposium Secretariat, Centre for International Scientific Exchanges, Chinese Academy of Sciences, Beijing, China, July 2004. Cell transplantation: a possible therapeutic means for the failing heart.

**Li R-K:** European Society of Cardiology Congress 2004, Munich, Germany, August 2004. Left ventricular aneurysm repair: the Toronto experience.

**Li R-K:** Symposium in Stem Cell Repair and Regeneration, Imperial College London, Faculty of Medicine, London, United Kingdom, September 2004. Left ventricular aneurysm replacement with cell-seeded biodegradable materials.

**Li R-K:** XVIII World Congress International Society for Heart Research, Queensland, Australia, August 2004. Mechanism for cell transplantation to Improve heart function: cells or matrix.

**Li R-K:** 4th Annual Congress Japanese Society for Regenerative Medicine, Osaka, Japan, March 2005. Myocardial regeneration after myocardial infarction.

**Li R-K:** Annual Cardiovascular Scientific Day, Heart & Stroke/Richard Lewar Centre for Excellence, Toronto, Ontario, May 2005. Neovascularization derived from cell transplantation in ischemic myocardium.

**Li R-K:** International Conference of Advanced Biotechnology, National Cheng Kung University, Taiwan, Tainan, Taiwan, PR of China, October 2004. Novel biomaterial and techniques for creation of cell Engineered cardiac tissue.

**Li R-K:** 34th Annual Mtg of German Society of Thoracic, Cardiac & Vascular Surgery, Hamburg, Germany, February 2005. Regenerative therapy in cardiovascular medicine.

**Rao V:** Edwards Lifesciences Resident Symposium, Irvine, Callifornia, October 2004. Ischemic Cardiomyopathy: Newer management approaches.



- Rao V:** Michener Institute of Technology, Toronto, Ontario, November 2004. Mechanical circulatory support at Toronto General Hospital.
- Rao V:** Ohio State University, Columbus, Ohio, November 2004. Mechanical circulatory support for post-cardiotomy shock.
- Rao V:** Hamilton General Hospital, Hamilton, Ontario, November 2004. Mechanical circulatory support for post-cardiotomy shock.
- Rao V:** Canadian Cardiovascular Society, Calgary, Alberta, October 2004. 1) Surgical management of ischemic mitral regurgitation. Surgical Workshop. 2) Use of mechanical circulatory support for end-stage heart failure in Canada.
- Rao V:** American College of Cardiology, Toronto, Ontario, June 2005. Surgical therapy for ischemic cardiomyopathy: The STICH Trial.
- Rao V:** Ohio State University, Columbus, Ohio, June 2005. The operating room as a laboratory (Cardiac Surgery Rounds).
- Scully HE:** International Council of Motorsport Science, Miami, Florida, January 2005. Annual General Meeting. "Death at the Circuit".
- Scully HE:** Canadian Society of Association Executives, Ottawa, Ontario, January 2005. "Differences Associations Can Make When They Forge Alliances to Solve Problems".
- Scully HE:** The Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, March 2005. Health and public policy committee. "Update on Task Force Two: A Physician Resource Strategy for Canada".
- Weisel RD:** Annual Eastern Regional Cardiovascular Conference, University of Eastern North Carolina, Greenville, North Carolina, October 2004. Angiogenesis - endothelial proliferation/cell transplantation.
- Weisel RD:** American Association for Thoracic Surgery, San Francisco, California, April 2005. Cardiac regeneration.
- Weisel RD:** Hayama Heart Institute, Hayama, Japan, March 2005. Cardiac regeneration: A new paradigm.
- Weisel RD:** Lennox K. Black Symposium, Translational Aspects of Cardiovascular Regulation, Philadelphia, Pennsylvania, October 2004. Cardiac restoration by cell transplantation.
- Weisel RD:** Society of Perfusion Symposium, Boston, Massachusetts, November 2004. Cardioplegia additives/substrate enhancement.
- Weisel RD:** International Society of Minimally Invasive Cardiac Surgery Winter Workshop, Bangkok, Thailand, December 2004. Cell transplantation and tissue engineering in cardiac surgery.
- Weisel RD:** American College of Cardiology Heart Failure Summit, Toronto, Ontario, June 2005. Engineering a new heart to prevent failure.
- Weisel RD:** International Society for Heart Research, New Orleans, Louisiana, May 2005. Innovative surgical strategies for treating advanced heart failure.
- Weisel RD:** German Society of Thoracic, Cardiac and Vascular Surgery, Hamburg, Germany, February 2005. A) Myocardial ischemia and protection. B) What are the prerequisites for efficient myocardial protection?
- Weisel RD:** Michener Institute for Applied Health Sciences, Toronto, Ontario, October 2004. Myocardial protection.
- Weisel RD:** National Institutes of Health, Bethesda, Maryland, August 2004. Opportunities for cell transplantation.
- Weisel RD:** Update on Cardiopulmonary Bypass Meeting, Snowmass, Colorado, March 2005. 1) Stem cell therapy: will they take? 2) Surgical Highs and Lows.
- Weisel RD:** Canadian Cardiovascular Congress, Calgary, Alberta, October 2004. The future of cardiac surgery.
- Weisel RD:** Society for Thoracic Surgical Education, Key Largo, Florida, February 2005. Where we really are with stem cells.
- Weisel RD:** International Society for Heart and Lung Transplantation, Philadelphia, Philadelphia, April 2005. Will all of our problems be solved by cells?

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

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*, Co-Investigators: Duminda Wijeyesundera D, Rao V, Chan C, Granton J, Collaborator: Ivanov J.; *HSFO* (\$189,972 2004 - 2006).

Left ventricular mass regression following aortic valve replacement with stentless versus stented bioprostheses: Follow-up of a randomized study. *Cohen G*, Ivanov J, Joyner C, Morgan C, Christakis G, Alter D, MacGowan C, Burns P: *HSFO* (\$89,350 2004 - 2006).

A propensity score, pairmatched study of late outcomes for off-pump versus on-pump coronary artery bypass graft surgery. *Ivanov J*, Borger MA, David TE, Tu JV: *Heart and Stroke Foundation of Canada* (\$86,000 2004 - 2005).

Autologous tissue-engineered grafts for congenital heart surgery. *Ren-Ke Li*: *Canadian Institutes of Health Research* (\$647,655 2003 - 2008).

BARI 2D: A trial of revascularization and glycemic control in NIDDM. *Schwartz, L*, Steiner G, David TE, Ralph-Edwards AC, Cusimano RJ, Yau T, Feindel CM: *National Institute of Health* (\$35,000,000 2000 - 2004).

Cardiac regeneration by cell transplantation. *Weisel R*, Verma S, Fazel S: *Heart and Stroke Foundation* (\$73,441 2004 - 2005).

Cell transplantation for cardiovascular disease. *Li R-K*: *Heart and Stroke Foundation of Ontario (Personnel Support)* (\$381,250 2001 - 2006).

Cell transplantation for diabetic cardiomyopathy. *Li R-K*: *Canadian Diabetes Association* (\$125,628 2002 - 2004).

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 M*, David TE, Feindel CM: *Edwards Lifesciences Inc.* (\$50,000 2005 - 2007).

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).

Functionality of resistant starch and bioactive peptides in preventing chronic diseases and promoting gut functions in studies with the pig model. *Fan MZ*, Liu Q, Mine Y, Yada R, Bakovic M, Li 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-Ki*, Fedak P: *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).

Improved cardiac function and exercise tolerance in patients undergoing coronary artery bypass surgery who receive a nutritional supplement (MyoVive). *Errett L*, Borger MA, Fremes SE, et al: *Numico Inc.* (\$25,000 2003 - 2005).

Medtronic model 6949 lead study. *Cameron D*, Ralph-Edwards AC, Brister SJ, Cusimano RJ: *Medtronic of Canada* (\$50,000 2002 - 2004).

Minimal invasive cardiac surgery: Is it safe for the brain? *Borger MA*: *Connaught New Staff Matching Grant, University of Toronto* (\$10,000 2003 - 2005).

Minimally invasive cardiac surgery: Is it safe for the brain? *Borger MA*: *University of Toronto Dean's Fund* (\$10,000 2004 - 2005).

Modulating endothelial progenitor cells for myocardial regeneration: Role of PPAR $\gamma$ . *Verma S*, Weisel RD: *Heart and Stroke Foundation* (\$67,510 2004 - 2005).

Outcome assessment of mitral valve replacement and repair. *Weintraub WS*, Borger MA and multiple other co-investigators: *National Institute of Health* (\$20,000 2003 - 2005).



- Polyarginine treated vein grafts (PATENT). *Brister SJ, Yau T, Ralph-Edwards A: Lumen Therapeutics, LLC* (\$630,000 2005 - 2008).
- Preservation of endothelial function following prolonged storage of cardiac allografts with shed donor blood. *Feindel CM, Rao V: Heart and Stroke Foundation of Ontario* (\$221,319 2001 - 2004).
- Prevention of the progressive cardiac failure of dilated cardiomyopathy by gene-transfected cell transplantation. *Li R-K: Canadian Institute of Health Research* (\$288,697 2001 - 2004).
- Stem cells and restenosis: Defining the New Paradigm. *Weisel RD, Verma S, Yau TM: Heart and Stroke Foundation* (\$73,344 2004 - 2005).
- 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 randomised, double-blinded, placebo-controlled trial of N-Acetylcysteine for preventing renal injury after cardiac surgery. *Beattie S, Rao V, Chan C, Wijeyesunderan D, \* Brister S: (\*Safety and Monitoring Committee): Heart & Stroke Foundation of Canada* (\$202,040 2003 - 2005).
- The RICH study (Renal Insufficiency in Cardiac Surgery: Role of Hemodilution). *Karkouti K, Beattie WS, Rao V, Chan C, Ivanov J, Wijeyesundera: Earl Wynands Award in Cardiovascular Anaesthesia* (\$30,000 2004 - 2005).
- Transplant vasculopathy: The role of endothelium. *Rao V: Canadian Institutes of Health Research* (\$250,000 2003 - 2008).
- Transplant vasculopathy: The role of endothelium. *Rao, V: American Association of Thoracic Surgeons, Robert E. Gross Scholarship* (\$110,000 2003 - 2005).
- 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, et al: Heart & Stroke Foundation of Ontario* (\$175,715 2004 - 2006).
- Vasculogenesis induced by cell transplantation. *LiR-K: Heart and Stroke Foundation of Ontario* (\$327,408 2003 - 2007).

## Honours Received

- Borger MA:** Roscoe Reid Graham Award Department of Surgery Award, University of Toronto, September 2004.
- David TE:** President, American Association for Thoracic Surgery, April 2005.
- David TE:** University Professor, University of Toronto, July 2004.
- Rao V:** Alfredo and Teresa DeGasperis Chair in Surgical Management of Heart Failure, University Health Network, University of Toronto, January 2005.
- Scully HE:** Founding Fellow, FIA (World) Institute for Motorsport Safety, October 2004.
- Weisel RD:** Distinguished Achievement Award, Council on Cardiovascular Surgery and Anesthesia, American Heart Association, November 2004.
- Weisel RD:** Guest Lecturer at the American Association for Thoracic Surgery, San Francisco, CA, April 2005.
- Weisel RD:** Wilfred Bigelow Lectureship 2004 Award, October 2004.

## **DIVISION OF GENERAL SURGERY**

**Dr. C. Burul - Assistant Professor**

**Dr. M.S. Cattral - Professor**

**Dr. E. Escallon - Associate Professor**

**Dr. R.M. Gorczynski - Profesor**

**Dr. D. Grant - Professor**

**Dr. P.D. Greig - Professor**

**Dr. B. Langer - Professor**

**Dr. W.L. Leong - Assistant Professor**

**Dr. D.R. McCready - Professor**

**Dr. I.D. McGilvray - Assistant Professor**

**Dr. M. Reedijk- Assistant Professor**

**Dr. R.K. Reznick - Professor**

**Dr. L.E. Rotstein – Professor (Acting Division Head)**

**Dr. B.R. Taylor - Professor**

**Dr. D. R. Urbach - Assistant Professor**

**Dr. H.A.E. Weizel - Associate Professor**

## **Publications**

**Avitzur Y, De Luca E, Cantos M, Jimenez-Rivera C, Jones N, Fecteau A, Grant D, Ng VL:** Health status ten years after pediatric liver transplantation—looking beyond the graft. *Transplantation*: August 2004: 27: pp 566-73.

**Chen L, Borozan I, Feld J, Sun J, Tannis LL, Coltescu C, Heathcote J, Edwards AM, McGilvray ID:** Hepatic gene expression discriminates responders and nonresponders in treatment of chronic hepatitis C viral infection. *Gastroenterology*: May 2005: 128: pp 1437-1444.

**Diao J, Winter E, Chen W, Cantin C, Cattral MS:** Characterization of distinct conventional and plasmacytoid dendritic cell-committed precursors in murine bone marrow. *Journal of Immunology*: August 2004: 173: pp 1826-1833.

**Dixon E, Jr CM, Sahajpal A, Cattral MS, Taylor BR, Langer B, Gallinger S, Greig PD:** Transduodenal resection of peri-ampullary lesions. *World Journal of Surgery*: April 2005: Vol. 29; pp 649-652.

**Escallon J:** Ambulatory surgery in Canada. In: *Ambulatory Surgery* (Moore, JH, eds). Medellin, Colombia: 2005.

**Escallon J:** Postgraduate teaching in parenteral and enteral nutrition. In: *Textbook of Parenteral and Enteral Nutrition* (Arenas H, ed). Mexico: 2005.

**Fyles AW, McCready DR, Manchul LA, Trudeau ME, Merante P, Pintilie M, Weir LM, Olivetto IA:** Tamoxifen with or without breast irradiation in women 50 years of age or older with early breast cancer. *New England Journal of Medicine*: September 2004: 351: pp 963-1023.

**Gagliardi AR, Fung Kee Fung M, Langer B, Stern H, Brown AD:** Development of ovarian cancer surgery quality indicators using a modified Delphi approach. *Gynecologic Oncology*: February 2005: 97: pp 446-456.

**Grant D, Dixon E, Vollmer CM Jr, Sahajpal A, Cattral M, Doig C, Hemming A, Taylor B, Langer B, Greig P, Gallinger S:** An aggressive surgical approach leads to improved survival in patients with gallbladder cancer: a 12-year study at a North American Center. *Annals of Surgery*: March 2005: 241: pp 385-94.

**Grant D, Abu-Elmagd K, Reyes J, Tzakis A, Langnas A, Fishbein T, Goulet O, Farmer D,** on Behalf of the Intestine Transplant Registry: 2003 Report of the intestine transplant registry: A New Era Has Dawned. *Annals of Surgery*: April 2005: 14: pp 607-613.

**Grober E, Hamstra S, Wanzel K, Reznick RK, Sidhu R, Matsumoto E, Jarvi K:** The educational impact of bench model fidelity on the Acquisition of technical skill - The Use of Clinically Relevant Outcome Measures. *Annals of Surgery*: August 2004: 240(2): pp 374-81.

**Haigh PI, Urbach DR, Rotstein LE:** AMES prognostic index and extent of thyroidectomy for well-differentiated thyroid cancer in the United States. *Surgery*: September 2004: 136:3: pp 609-616.



- Hodgson D, Urbach DR, Przybysz R, Sullivan T, Rabeneck L:** Cancer Surgery. In: Access to Health Service in Ontario: ICES Atlas (Tu JV, Pinfold SP, McColgan P, Laupacis A, eds). Institute for Clinical Evaluative Sciences (ICES), Toronto: 2005: pp 9-42.
- Jaskolka JD, Asch MR, Kachura JR, Ho CS, Ossip M, Wong F, Sherman M, Grant DR, Greig PD, Gallinger S:** Needle tract seeding after radiofrequency ablation of hepatic tumors. *Journal of Vascular Interventional Radiology*: April 2005: 16: pp 485-91.
- Kennedy ED, Urbach DR, Krahn M, Cohen Z, Steinhart HA, McLeod RS:** Azathioprine or ileocolic resection for steroid-dependent terminal ileal Crohn's Disease? A Markov analysis. *Diseases of the Colon and Rectum*: December 2004: 47(12): pp 2120-30.
- Khan HJ, Presta A, Yang L-Y, Blondal J, Trudeau M, Lickley L, Holloway C, McCready DR, Maclean D, Marks A:** Enumeration of circulating tumor cells in the blood of breast cancer patients after filtration enrichment: correlation with stage and progression. *Breast Cancer Research and Treatment*: August 2004: 86(3): pp 237-247.
- Kim RD, Sakamoto S, Haider MA, Molinari M, Gallinger S, McGilvray ID, Greig PD, Grant DR, Cattral MS:** Role of Magnetic Resonance Cholangiography in Assessing Biliary Anatomy in Right Lobe Living Donors. *Transplantation*: May 2005: 79: pp 1417-1421.
- Lingard L, Espin S, Whyte S, Regehr G, Baker GR, Reznick RK, Bohnen J, Orser B, Doran D, Grober E:** Communication failures in the operating room: An observational classification of recurrent types and effects. *Quality and Safety in Health Care*: October 2004: 13: pp 330-334.
- McCready DR:** Keeping abreast of marginal controversies. *Annals of Surgical Oncology*: October 2004: 11(10): pp 885-887.
- McCready DR:** Prognosis after regional lymph node recurrence in patients with stage I-II breast carcinoma treated with breast conservation therapy. *Breast Diseases: A Year Book Quarterly*: July 2004: 15(2): pp 185-186.
- McCready DR, Holloway C, Shelley W, Down N, Robinson P, Sinclair S, Mirsky D:** Surgical management of early-stage invasive breast cancer: a practice guideline. *Canadian Journal of Surgery*: June 2005: 48(3): pp 185-194.
- McMullen TPW, Easson AM, Cohen Z, Swallow CJ:** The investigation of primary rectal cancer by surgeons: current pattern of practice. *Canadian Journal of Surgery* 2005: 48(1): pp 19-26.
- Mihailovic A, Bell CM, Urbach DR:** Case-control studies in surgical journals: Cross-sectional survey. *Canadian Journal of Surgery*: April 2005: 48(2): pp 148-151.
- Taylor B:** Detection of hematogenous tumour cell dissemination predicts tumour relapse in patients undergoing surgical resection of colorectal liver metastases. *Annals of Surgery*: February 2005: 241(2): pp 206-7.
- Taylor BR, Langer B:** Procedures for benign and malignant biliary tract disease. In: *ACS Surgery: Principles and Practice* (Souba WW, Fink MP, Jurkovich GL, eds). WebMD Inc, New York: 2005: pp 1-15.
- Trudeau ME, Pritchard KI, Chapman JW, Hanna WM, Kahn HJ, Murray D, Sawka CA, Mobbs BG, Andrulis I, McCready DR, Lickley HLA:** Prognostic factors affecting the natural history of node-negative breast cancer. *Breast Cancer Research and Treatment*: January 2005: 89: pp 35-45.
- Urbach DR:** Volume and outcome in health care: Implications for health policy. *Healthcare Quarterly*: September 2004: 7(4): pp 22-23.
- Urbach DR, Austin PC:** Conventional models overestimate the statistical significance of volume-outcome associations as compared with multilevel models. *Journal of Clinical Epidemiology*: January 2005: 58(4): pp 391-400.
- Urbach DR, Stukel TS:** Rate of elective cholecystectomy and the incidence of severe gallbladder disease. *Canadian Medical Association Journal*: January 2005: 172(8): pp 1015-1019.
- Wright L, Faith K, Richardson R, Grant D:** Ethical guidelines for the evaluation of living organ donors. *Canadian Journal of Surgery*: December 2004: 47: pp 408-13.
- Yap KPL, McCready DR:** Deep venous thrombosis and malignancy: A surgical oncologist's perspective. *Asian Journal of Surgery*: July 2004: 27(3): pp 249-254.
- Yap KPL, McCready DR, Fyles A, Manchul L, Trudeau M, Narod S:** Use of alternative therapy in postmenopausal breast cancer patients treated with tamoxifen after surgery. *The Breast Journal*: November 2004: 10(6): pp 481-486.

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

**Cattral MS:** Alberta Transplantation Institute, University of Alberta Hospital, Edmonton, Alberta, December 2004. Living donor Liver Transplantation.

**Escallon J:** Asociacion Mexicana de Cirugia, Annual Congress, Veracruz, Mexico, November 2004. Abdominal sepsis: antibiotics. Surgical Site Infection.

**Escallon J:** Universidad de Antioquia, Medellin, Colombia, May 2005. Courses of Total Nutritional Therapy - TNT.

**Escallon J:** Asociacion Colombiana de Cirugia. University of Antioquia. Intermediate Meeting., Medellin, Colombia, May 2005. Intraabdominal sepsis. Immunomodulation with Hipertonic Saline.

**Grant D:** Canadian Association for the Study of the Liver, Banff, Alberta, March 2005. Living Liver Donation.

**Grant D:** International Congress on Immunosuppression, San Diego, California, December 2004. "Update of the intestinal transplant registry."

**Grant D:** International Transplant Society Congress XX, Vienna, Austria, September 2004. Intestine Transplantation: State of the Art.

**Greig PD:** 2004 AASLD/AHPBA Surgical Forum, Boston, Massachusetts, October 2004. Focal nodular hyperplasia.

**Greig PD:** 11th Annual Update on Digestive Diseases, Toronto, Ontario, November 2004. Indications for liver transplant in the setting of hepatocellular carcinoma.

**Greig PD:** 17th International course on therapeutic endoscopy - St. Michael's Hospital - Toronto, Ontario, October 2004. Staging for Surgery - minisymposium on Cholangiocarcinoma.

**Langer B:** Atlantic Health Sciences Center, Saint John, New Brunswick, June 2005. Improving the quality of cancer surgery - the CCO approach.

**Langer B:** American College of Surgeons, New Orleans, Los Angeles, October 2004. Panellist - Ethics Colloquium on Marketing in Surgery.

**Langer B:** International Surgical Group, Ottawa, Ontario, August 2004. Reorganization of Cancer Surgery Services in Ontario.

**Langer B:** American HepatoPancreatoBiliary Association, Hollywood, Florida, April 2005. Strategies to Improve Outcomes in HPB Surgery: the Cancer Care Ontario approach.

**McCready DR:** Melanoma Update 2005, Niagara-on-the-Lake, Ontario, February 2005. Current issues in the diagnosis and management of melanoma.

**McCready DR:** The Ottawa Hospital, Ottawa, Ontario, February 2005. External reviewer.

**McCready DR:** Keck School of Medicine, University of Southern California - International Consensus Conference II on Image-Detected Breast Cancer, Miami, Florida, January 2005. 1) Results of breast conserving treatment without radiation. 2) Sentinel lymph node micrometastases.

**McGilvray ID:** American Association for the Study of Liver Disease (Clinical Research Conference: Investigating the genetics of liver disease, digestive disease week), Chicago, Illinois, May 2005. Gene expression profiling of liver disease.

**Reedijk M:** North York General Hospital, Toronto, Ontario, November 2004. Genetics of breast cancer: Notch signaling.

**Reedijk M:** The Society of Surgical Oncology 58th Annual Cancer Symposium, Atlanta, Georgia, March 2005. High-level Co-Expression of JAG1 and Notch1 is Associated with Poor Survival in Breast Cancer.

**Reznick RK:** Institute for Clinical Evaluative Services, Toronto, Ontario, November 2004. An overview of surgical competencies.

**Reznick RK:** Keynote Address, American Board of Medical Specialties Annual Meeting, Chicago, Illinois, September 2004. Anatomy of a Surgeon.

**Reznick RK:** Quincentenary Congress of the Royal College of Surgeons of Edinburgh, Edinburgh, Scotland, June 2005. 1) Bench Top Surgical Simulation. 2) Improving Surgical Performance & Safety with Information Technology.

**Reznick RK:** Keynote Speaker, First Oresund Symposium on Skills Centres, University of Copenhagen, Copenhagen, Denmark, November 2004. 1) From Competence to Virtuosity. 2) Improving Surgical Performance & Safety with Information Technology.





**Reznick RK:** Plenary Address at the Taiwan Surgical Association Meeting, Taipei, Taiwan, March 2005. Learning on patients - A Vanishing Opportunity.

**Reznick RK:** Grand Rounds, University of Wisconsin at Madison, Madison, Wisconsin, April 2005. Lessons for the surgical teacher: We should have listened to Vince.

**Reznick RK:** Kaohsiung Medical University, Kaohsiung, Taiwan, March 2005. New directions for a surgical residency.

**Reznick RK:** American College of Surgeons Annual Clinical Congress, New Orleans, Louisiana, September 2004. Panel Member: The Architecture of General Surgery Residency Training - Making Less into More.

**Reznick RK:** Visiting Professor, University of Wisconsin at Madison Education Retreat, Madison, Wisconsin, April 2005. Playing in the OR sandbox: A source of tension and a source of error.

**Reznick RK:** Keynote Speaker, Leiden International Medical Students Congress, Leiden, the Netherlands, April 2005. Surgical Education - Lessons from a Goalie.

**Reznick RK:** Peter Canizaro Lecture, Cornell University, New York, New York, November 2004. Surgical Education: Changes in the wind - or is that just a breeze?

**Reznick RK:** Keynote Speaker, American Society of Neurological Surgeons Annual Meeting, Palo Alto, California, May 2005. Surgical Training: Lessons from a Goalie.

**Reznick RK:** Keynote Speaker, Dutch-Flemish Society for Medical Education, Egmond-aan-Zee, Holland, November 2004. Surgical Training: Lessons from a Goalie.

**Reznick RK:** Hayes Martin Lecturer for the 2005 American Head and Neck Society Annual Meeting, Boca Raton, Florida, May 2005. Training in 35 hours per week: Laudable or Lunacy?

**Reznick RK:** German Society of Surgery Clinical Congress, Munich, Germany, April 2005. What are the effects of a surgical skills lab?

**Rotstein LE:** Canadian Surgery Forum 2004 Annual Meeting. September 9-12, 2004, Ottawa, Ontario, September 2004. 1) Endocrine Surgery: Parathyroid and Thyroid Disease. Panel Discussion. 2) General Surgery Langer Lecture: Promethean Possibilities - Dr. L.H. Blumgart, Memorial Sloan Ketterin Cancer Center, New York, New York; Chair of Session. 3) The Workup of Hypercalcemia. Diagnosis, Pitfalls and Preoperative Imaging. Endocrine Surgery Session: Parathyroid and Thyroid Disease.

**Rotstein LE:** General Surgery Journal Club, Division of General Surgery, William Osler Health Centre, Mississauga, Ontario, January 2005. What's new in thyroid disease.

**Taylor BR:** The Gallie Lecture: The paradox of our academic life. Canadian Surgical Week, Ottawa, Ontario, September 2004.

**Urbach DR:** Item Response Theory Measurement Group. Institute for Work and Health, Toronto, Ontario, May 2005. A Measure of Quality of Life for Achalasia.

**Urbach DR:** American College of Surgeons, Postgraduate Course 31: Optimal Outcomes to Maintain a Competitive Edge, New Orleans, Louisiana, October 2004. 1) Challenges in the assessment of surgical technology. 2) Meta Analysis.

**Urbach DR:** Canadian Surgery Forum, Postgraduate Course "Advanced laparoscopy: Practical considerations for the coming mainstream., Ottawa, Ontario, September 2004. Laparoscopic Colorectal Surgery: Current Evidence.

**Urbach DR:** Centre for Minimal Access Surgery (CMAS), Hamilton, Ontario, July 2004. 1.) Laparoscopic gastrectomy. 2.) Paraesophageal hernia repair - laparoscopic approach.

**Urbach DR:** SAGES Minimally Invasive Surgery Resident Course, Cincinnati, Ohio, August 2004. Laparoscopic colorectal surgery.

**Urbach DR:** Canadian Surgery Forum, Thoracic surgery Research session, Ottawa, Ontario, September 2004. Myotomy vs. balloon dilatation for achalasia.

**Urbach DR:** SAGES Advanced Laparoscopic Colon surgery Workshop, Norwalk, Connecticut, February 2005. Overview, short term outcomes and long term outcomes of laparoscopic colorectal surgery.

**Urbach DR:** American College of Surgeons, Surgical Outcomes Research Course, Chicago, Illinois, November 2004. Uses and misuses of administrative data.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

- A multicentre comparison of kidney-only vs. kidney-pancreas transplantation. *McGilvray I, Cattral MS, Ross, H: Fujisawa* (\$50,000 2004).
- 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 WL and McCready D: Novartis* (\$35,000 2005 - 2006).
- A phase II double blind randomized placebo controlled multicenter study assessing the value of adding rad 0012 letrozol as preoperative therapy. *Leigh N, McCready DR, Leong W, Reedijk M: Novartis* (\$40,000 2005 - 2007).
- A prospective, randomized, controlled trial of radioguided seed localization versus standard needle localization of nonpalpable breast cancers. *Lovric P, Reedijk M, Chen V, Cornacchi S, Franic A, Garnett A Goldsmith CH, Hodgson N, McCready D: 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, PMH Site Principal Investigator: National Surgical Adjuvant Breast and Bowel Project* (\$120,000 2004 - 2005).
- Analysis of current research related to the impact of low volume procedures/surgery and care on outcomes of care. *Urbach DR, Stukel TS: Canadian Institute for Health Information* (\$22,000 2004 - 2005).
- Analysis of the Notch Signaling System in Human Breast Cancer. *Reedijk M: James Ewing Oncology Fellowship Award for Basic Science Society of Surgical Oncology* (\$40,000 2004).
- Breast Cancer Clinical Research Program. Genome Canada. *Vallis K, McCready DR: University Health Network* (\$800,000 2005 - 2009).
- CIHR Grant No 62448, The molecular genetics of hepatitis C viral infection: Defining novel therapeutic and pathogenic mechanisms in acute and chronic disease. *Ian McGilvray, Jenny Heathcote: Canadian Institutes of Health Research* (\$462,447 2005 - 2008).
- Comprehensive multidisciplinary clinical database for breast cancer patients. *McCready DR, Leong WL, Reedijk M, Holloway K, Fallos B, Fairclough: Breast Cancer Research Institute* (\$250,000 2003 - 2004).
- Discontinuity of chronic medications in hospitalized elders. *Chiam Bell, David Urbach, Jana Bajcar, Arlene Bierman, Muhammad Mamdani: 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. *WL, Leong, Easson AM, McCready DR: Nelson Arthur Hyland Foundation* (\$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).
- Evaluative Research in Surgical Procedures and New Health Technologies: Ensuring Quality, Access and Sustainability for Surgical Care in Ontario. *Urbach DR: Ontario Ministry of Health and Long-Term Care, Health Research Personnel Development Program* (\$250,000 2002 - 2007).
- 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).
- Fiberoptic ductoscopy of the breast for the management of nipple discharge. *Easson AM, Leong W, McCready D: Den Haag Breast Cancer Foundation* (\$126,000 2003 - 2004).



FK 778 Proof of concept study in liver transplantation (anticipated enrolment of 10 patients). *Grant D (Senior Site Investigator)*, This is a multicenter European and Canadian trial: *Fujisawa* (\$160,000 2003 - 2004).

Genetic profiling of selective ductoscopic lavage of breast cancer. . *Leong WL, Woodgett JR: Canadian Breast Cancer Research Alliance* (\$46,375 2003 - 2005).

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).

Identifying novel pathogenic pathways in hepatitis C viral infection of the liver. *Aled Edwards, Jenny Heathcote, Ian McGilvray, Gary Levy: Canadian Institute of Health Research* (\$600,000 2003 - 2005).

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. *Cattral M.S: Canadian Institutes of Health Research* (\$273,870 2004 - 2007).

Making medical meaning: Cognitive, social and educational implications of the computerized patient record. *Kushniruk A, Lingard LA, Reznick RK, Smith C: Social Sciences and Humanities Research Council of Canada* (\$106,640 2002 - 2005).

Mammary ductoscopy imaging and spectroscopy, an exploratory study. *Leong WL, Easson AM, McCready DR, Done S, Uouplik 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).

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).

Preclinical assessment of vaccinia virus for cancer gene therapy and functional tumour imaging. *McCart JA, Reilly R: Ontario Cancer Research Network* (\$451,538 2002 - 2005).

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

Prevention of delayed cardiac xenograft rejection by modulation of the potent FGL2 prothrombinase gene. *Grant DR, Gorczynsk R, Levy G: Heart & Stroke Foundation of Ontario* (\$215,158 2002 - 2005).

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).

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. *Gory KM, McCready DR, Holowaty E: CIHR* (\$374,000 2004 - 2009).

Team Talk: An intervention to structure information sharing and promote patient safety in the operating room. *Lingard LA, Regehr G, Baker R, Orser B, Doran D, Reznick RK, Grober E: Canadian Institutes of Health Research* (\$124,918 2002 - 2004).

The epidemiology of surgery for gastroesophageal reflux disease (GERD) in Ontario: Determinants and outcomes of surgical therapy. *Urbach DR, Ungar WJ, Rabeneck L, Mamdani MM: Society of American Gastrointestinal Endoscopic Surgeons (SAGES)* (\$15,000 2004 - 2005).

The genomics of hepatocellular carcinoma: Identifying therapeutic targets and avenues for prevention. *McGilvry ID*, Edwards A, Grant D, Heathcote J, Gallinger S: *Ontario Cancer Research Network* (\$689,000 2004 - 2007).

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).

The molecular mechanisms of organ injury after liver transplantation: Potential strategies for prevention. *McGilvray I*, Grant D, Rotstein O: *Physicians Services Incorporated of Ontario* (\$150,000 2002 - 2005).

## **Honours Received**

**Greig PD:** Nomination for Gerald Kirsh Humanitarian Award - Princess Margaret Hospital, November 2004.

**McCart JA:** The Saul Highman Memorial Award from the Leukemia and Lymphoma Society of Canada, June 2005.

**McGilvray ID:** Bernard Langer Surgical Scientist Award, May 2005.

**Reznick RK:** 2005 Daniel C. Tosteson Award for Leadership in Medical Education from the Carl J. Shapiro Institute for Education and Research., April 2005.

**Rotstein LE:** Frank Mills Award for Excellence in Teaching by a General Surgery Faculty Member. Division of General Surgery, Faculty of Medicine, University of Toronto, June 2005.

**Rotstein LE:** Presidential Citation for Outstanding Contributions to the American Head & Neck Society. American Head & Neck Society May 15-17, 2005 Boca Raton, Fl., May 2005.



## **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 - Assistant Professor**

**Dr. A.M. Lozano - Professor**

**Dr. E. M. Massicotte - Assistant Professor**

**Dr. J. A. Saint-Cyr - Professor**

**Dr. C.H. Tator - Professor**

**Dr. M. Tymianski - Associate Professor**

**Dr. A. Velumian - Assistant Professor**

**Dr. M.C. Wallace - Professor (Division Head)**

## **Publications**

**Abosch A, Hodaie M, Davis K, Dostrovsky JO, Lozano AM:** Microelectrode recordings of the cingulate gyrus and anterior thalamus. In: Microelectrode Recordings in Movement Disorder Surgery (Israel and Burchiel, ed). Thieme,: 2004.

**Abosch A, Lozano AM:** Stereotactic ablative procedures for pain relief. Seminars in Neurosurgery: September 2004: 15: pp 195-202.

**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, Whitemore S, Wolpaw J, Young W, Zheng B:** Editorial: Recommended guidelines for studies of human subjects with spinal cord injury. Spinal Cord: April 2005: adv online: pp 1-6.

**Andrade-Souza YM, Schwalb JM, Hamani C, Eltahawy H, Hoque T, Saint-Cyr J, Lozano AM:** Comparison of three methods of targeting the subthalamic nucleus for chronic stimulation in Parkinson's disease. Neurosurgery: June 2005: 56(Suppl 2): pp 360-368.

**Andrade-Souza YM, Schwalb JM, Hamani C, Hoque T, Saint-Cyr J, Lozano AM:** Comparison of 2-dimensional magnetic resonance imaging and 3-planar reconstruction methods for targeting the subthalamic nucleus in Parkinson disease. Surgical Neurology: May 2005: 63(4): pp 357-362.

**Bell JAH, Hyland S, DePellegrin T, Upshur REG, Bernstein M, Martin DK:** SARS and hospital priority setting: A qualitative case study and evaluation. BMC Health Services Research: November 2004: 4: pp 36.

**Bernstein M:** Abetting emigration of Canada's nurses and doctors. Healthcare Quarterly: June 2005: 8: pp 8-9.

**Bernstein M:** Assessing the bioethical integrity of a clinical trial in surgery. Canadian Journal of Surgery: October 2004: 47: pp 329-332.

**Bernstein M:** Dictating consultation notes. Staff should do it, not trainees. Parkhurst Exchange: November 2004: 12:11: pp 214.

**Bernstein M:** Doctor-to-doctor referrals. Importance of teamwork among physicians is crucial. Parkhurst Exchange: July 2004: 12: pp 14.

**Bernstein M:** Ethical issues in fellowship training across the global divide. Indian Journal of Medical Ethics: May 2005: 2: pp 51-52.

**Bernstein M:** Hospital safety records. Should a healthcare institution's performance be made public. Con: Public disclosure can be problematic. Parkhurst Exchange: January 2005: 13: pp 35.

**Bernstein M:** Internet censorship in the hospital: Bad ethics and great irony. Healthcare Quarterly: January 2005: 7: pp 8.

**Bernstein M:** Outpatient brain tumour surgery: A new paradigm in healthcare delivery. Oncology Exchange: December 2004: 3: pp 20-23.

**Bernstein M:** Room for a view: The drop attack. Canadian Medical Association Journal: March 2005: 172: pp 668-669.

- Bernstein M, Bampoe J, Daar AS:** Ethical issues in molecular medicine of relevance to surgeons. *Canadian Journal of Surgery*: December 2004; 47: pp 414-421.
- Bernstein M, Mikulis D:** The inappropriate distribution of magnetic imaging resources in Ontario. *Canadian Association of Radiologists Journal*: December 2004; 55: pp 309-310.
- Bhattacharyya A, Shannon P, Bernstein M:** Subependymal giant cell astrocytoma and tuberous sclerosis complex. In: *Textbook of Neuro-Oncology* (Berger M, Prados M, eds). Elsevier Saunders, 2005: pp 160-166.
- Brodkey JA, Tasker RR, Hamani C, McAndrews MP, Dostrovsky JO, Lozano AM:** Tremor cells in the human thalamus: Differences among neurologic disorders. *Journal of Neurosurgery*: July 2004; 101(1): pp 43-47.
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- Davis KD:** Distinguishing nociception from pain and hyperalgesia with percept-related fMRI. In: *Hyperalgesia: Molecular Mechanisms and Clinical Implications* (Handwerker HO, Brune K, eds). IASP Press, Seattle: 2004: pp 329-337.
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- Davis KD, Pope GE, Crawley AP, Mikulis DJ:** The perceptual illusion of “paradoxical heat” engages the insular cortex. *Journal of Neurophysiology*: August 2004; 92: pp 1248-1251.
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- Eftekharpour E, Karimi-Abdolrezaee S, Sinha K, Velumian AA, Kwiecien JM, Fehlings MG:** Structural and functional alterations of spinal cord axons in adult Long Evans Shaker (LES) dysmyelinated rats. *Experimental Neurology*: June 2005; 193(2): pp 334-349.
- Eltahawy H, Saint-Cyr J, Lang AE, Lozano A:** Pallidal deep brain stimulation in cervical dystonia: Clinical outcome in 4 cases. *Canadian Journal of Neurological Sciences*: August 2004; 31(3): pp 328-332.
- Eltahawy HA, Feinstein A, Khan F, Saint-Cyr J, lang AT, Lozano AM:** Bilateral globus pallidus internus deep brain stimulation in tardive dyskinesias: Case report with video. *Movement Disorders*: August 2004; 19(8): pp 969-972.
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- Hamani C, Lozano AM:** Special lecture: Brain stimulation: Perspectives for the future. *Clinical Neurosurgery*: December 2004: 51: pp 271-274.
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- Kwan CL, Diamant NE, Mikula K, Davis KD:** Characteristics of Rectal Perception are Altered in Irritable Bowel Syndrome. *Pain*: January 2005: 113: pp 160-171.
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### **Invited Visits to Other Hospitals/Universities**

**Bernstein M:** 11th ASEAN Congress of Neurological Surgeons, Bali, Indonesia, December 2004. 1) Errors in neurosurgery ; 2) Neurosurgical training in Canada ; 3) Navigating anatomy and function to help brain tumor surgery ; (4) The role of chemotherapy for glioma.

**Bernstein M:** World Federation of Neurosurgical Societies Tumor Section Meeting, Jaipur, India, October 2004. 1) Image and function-guided brain tumour surgery ; 2) Malignant glioma: Questions and more questions ; 3) Ethical issues in neuro-oncology studies ; 4) Low-grade glioma: Questions and more questions.

**Bernstein M:** Invited Speaker, Neuro-Oncology Symposium on Cancer and Cognition, Toronto, Ontario, May 2005. Cognition, consent, and con-jobs.

**Bernstein M:** 39th Meeting of the Canadian Congress of Neurological Sciences, Calgary, Alberta, July 2004. Error and patient safety.

**Bernstein M:** Visiting Professor, University of Pittsburgh, Pittsburgh, Pennsylvania, May 2005. Patient safety and errors in neurosurgery.

**Davis KD:** Department of Biology (seminar series), York University, Toronto, Ontario, November 2004. "Brain imaging of your brain in pain".

**Davis KD:** Sunderland Society Meeting, Toronto, Ontario, September 2004. Panel Lecture: "Overview of Cortical Plasticity".

**Davis KD:** BIOMAG2004: 14th international biennial event, Boston, Massachusetts, August 2004. Symposium Lecture: "Neuroimaging of pain".

**Eubanks JH:** Invited Lecture, 1<sup>st</sup> Canadian Rett Syndrome Consortium Conference. Vancouver, British Columbia. "*Impaired Neuronal Function in the MeCP2-Deficient Mouse Model of Rett Syndrome*", August 2005.

**Eubanks JH:** Invited Lecture, Northern Pacific Rett Syndrome Research Conference, Vancouver, British Columbia. "Advances in the Understanding of how MeCP2 Mutations Cause Rett Syndrome", August 2005.

**Eubanks JH:** Keynote Address, Heart and Stroke Foundation of Northern Ontario. Orillia, Ontario. "*Stroke and Genetics: Unappreciated Links*", August 2005.

**Eubanks JH:** Keynote Address, Heart and Stroke Foundation of Northern Ontario. North York, Ontario. "*Mechanisms of Stroke*", October 2004.

**Fehlings MG:** Euroglia 2005, Amsterdam, The Netherlands, May 2005. 1) Chair, Workshop 4: Periaxonal glia and axonal function in health and disease; 2) Invited lecture: Glial-axonal integrity as a basis for axonal dysfunction in mature CNS: Current concepts.

**Fehlings MG:** 7th International Neurotrauma Symposium, South Adelaide, Australia, September 2004. 1) Chair: Session 7.1: Neuroprotection, 2) The FAS death receptor as a target for neuroprotective therapy of acute spinal cord injury.

**Fehlings MG:** Spine Trauma Study Group, New Orleans, Louisiana, October 2004. 1) Co-Chair. 2) Recent developments in Spine Trauma Study.

**Fehlings MG:** Spine Trauma Study Group, Memphis, Tennessee, November 2004. 1) Co-Chair: An interactive spine course focusing on contemporary surgical techniques in spine trauma; 2) State of the art update - Techniques and timing of surgery in SCI; 3) Panel member and discussant for case presentations.

**Fehlings MG:** North American Spine Society, 19th Annual Meeting, Chicago, Illinois, October 2004. 1) Co-Moderator: Session on Spinal Cord Injury, 2) Moderator: Concurrent Session: Cell Biology.

**Fehlings MG:** AOSpine North America, Bermuda, November 2004. 1) Faculty Retreat, 2) AOSpine North America Scientific Committee Meeting.



**Fehlings MG:** American Association of Neurological Surgeons, New Orleans, Louisiana, April 2005. 1) Faculty, Practical course 011, Head trauma: Current treatments and controversies with hands-on practical session in brain monitoring: “Sports injuries: Return to play”; 2) Faculty, Practical course 029, Craniovertebral junction: Surgical approaches & transoral approaches to the spine: Indications, techniques, limitations and complications: “Occipitocervical fusions”; 3) Moderator, Seminar 102, Management and treatment of traumatic spinal cord injury: “New directions in spinal cord injury”; 4) Discussant on presentation, Scientific session II, Reduction in incidence of post-operative C5 palsy following anterior cervical decompression by using continuous intra-operative electromyographic monitoring: A prospective study; 5) Panelist, 223 Breakfast seminar, The future of neurosurgery: Predictions through the looking glass: “Repair and regeneration of the injured spinal cord: What will the next 10 years bring?”; 6) Moderator, Seminar 305, Current indications & techniques of lumbar interbody fusion.

**Fehlings MG:** American Spinal Injury Association, 31st Annual Scientific Meeting, Dallas, Texas, May 2005. 1) Faculty, Spine Trauma Study Group meeting; 2) Co-Chair: Spine Trauma Symposium; 3) Invited lecture: Early vs. delayed surgery for cervical spinal cord injury with a cervical fracture/dislocation; 4) Section Moderator: Special section on the classification and treatment options for patients with spine trauma.

**Fehlings MG:** Symposium on Vertebral Column and Spinal cord Repair and Cervical Junctional Problems and Spinal Regeneration, Lisbon, Portugal, May 2005. 1) Keynote speaker: Biomechanical constraints in cervical spine surgery; 2) Debate I: Bone & disc repair - How far have we got?; 3) Debate II: Fusion or motion preservation - Mid cervical deformity: Big problems, big solutions; 4) Cervical junctional problems and spinal regeneration: Indications for ventral approach.

**Fehlings MG:** Cervical Spine Research Society, Boston, Massachusetts, December 2004. 1) Moderator: Session XII - Basic science papers; 2) The future of spinal cord injury - Where will we be in ten years?; 3) Co-Chair Session: Cervical spinal surgery: Update on spinal cord injury timing of spinal cord decompression - case presentation and discussion.

**Fehlings MG:** 20th Annual Meeting of the Japanese Society of Spinal Surgery and 5th Biennial Meeting of the Japan-Korean Conference on Spinal Surgery, Sapporo, Japan, June 2005. 1) Repair and regeneration of the injured spinal cord: From molecule to man; 2) Use of OP-1 bone morphogenic protein in high risk spinal fusion cases.

**Fehlings MG:** 13th International Congress of Neurological Surgery, World Federation of Neurosurgical Societies, Marrakesh, Morocco, June 2005. 1) Speaker, Symposium on spinal diseases in developing countries: Basics of spinal cord injury; 2) Chairman, Spinal trauma: Which material for stabilization?

**Fehlings MG:** AO ASIF, Syn Valley, Indiana, February 2005. Advanced concepts in management of spinal disorders 1) Pathophysiology and pharmacology of spinal cord injury; 2) Update on studies re: cervical myelopathy, AOSpine North America Scientific Committee meeting.

**Fehlings MG:** DePuy Spine Neurosurgery Residents Spine Education Summit, Phoenix, Arizona, March 2005. Co-Chair.

**Fehlings MG:** AANS/CNS Joint Section on Neurotrauma & Critical Care and Synthes, Pittsburgh, Pennsylvania, February 2005. Co-Chairman Pittsburgh Neurotrauma Senior Residents Forum.

**Fehlings MG:** International Campaign for Cures of Spinal Cord Injury Paralysis (ICCP), Paris, France, March 2005. Faculty on ICCP Clinical Trials Guidelines Panel.

**Fehlings MG:** AOSpine North America Fellows Forum, Banff, Alberta, March 2005. Keynote lecture: Cervical myelopathy.

**Fehlings MG:** New Jersey Commission on Spinal Cord Research, Princeton University, Princeton, New Jersey, October 2004. Keynote speaker: The future of spinal cord research.

**Fehlings MG:** International Collaboration on Repair Discoveries (ICORD), University of British Columbia, Vancouver, British Columbia, October 2004. Member of External Advisory Board.

**Fehlings MG:** International Campaign for Cures of Spinal Cord Injury Paralysis (ICCP), Los Angeles, California, November 2004. Member of spinal cord injury clinical trials advisory panel.

**Fehlings MG:** Christopher Reeve Paralysis Foundation, Santa Monica, California, March 2005. Scientific Advisory Committee Grant Applications Review.

**Fehlings MG:** Christopher Reeve Paralysis Foundation, La Jolla, California, September 2004. Scientific Advisory Committee meeting - grant reviews 2004.

**Fehlings MG:** AO International, Davos, Switzerland, December 2004. Subaxial cervical trauma; 1) The role of early decompression and stabilization in spinal cord injury; 2) Odontoid fracture management; 3) Masters course - Chair: Mini-symposium on spinal cord injury, (4) Management of cervical myelopathy; 4) Co-Chair: Development of Sun Valley practical exercises; 5) Outcome research and documentation committee.

**Fehlings MG:** Institute of Experimental Medicine, Academy of Sciences of the Czech Republic, Prague, Czech Republic, July 2004. Symposium on "Brain research: Where is it going?" Pathophysiology of white matter dysfunction after neurotrauma.

**Fehlings MG:** Reeve-Irvine Research Center, University of California, Irvine, California, July 2004. Visiting Professor: Neuroprotection of the injured spinal cord: from bench to bedside.

**Gentili F:** 4th International Skull Base Congress, Sydney Australia, October 2004. A) Combined approaches for the management of invasive anterior skull base meningiomas. B) Management of CSF Rhinorrhea following Skull Base Surgery - Techniques for prevention and repair.

**Gentili F:** Satellite meeting of the 4th International Skull Base Congress, Hayman Island Australia, November 2004. Extended Skull Base Approaches for Large Invasive Pituitary Adenomas.

**Gentili F:** 13th World Congress of Neurological Surgery, Marrakesh, Morocco, June 2005. Glomus Jugular Tumours.

**Gentili F:** WFNS Tumour Meeting, Jaipur India, October 2004. 1) Skull Base Surgery 20 Years Later; Lessons Learned. 2) The Management of Large Invasive Pituitary Adenomas.

**Gentili F:** 1st International Levantine Forum; Advances in Neurological Surgery, Bari, Italy, November 2004. The role of skull base surgery in sellar area lesions techniques.

**Hodaie M:** 7th IATM Advanced MR Imaging Symposium, Medellin, Colombia, April 2005. 1.) Neuroimaging in Movement Disorders. 2.) Neuromodulation for the Treatment of Epilepsy. 3.) Functional Neurosurgery: Localization Using MR Techniques.

**Hodaie M:** American Association of Neurological Surgeons, New Orleans, Louisiana, April 2005. Paper discussant. High Frequency Stimulation of the Caudal Zona Incerta for the Treatment of Parkinsonian and Non Parkinsonian Tremor.

**Hutchison WD:** American Neurology Society: Clinical Eye Movement Satellite meeting, Toronto, Ontario, Oct 3, 2004. STN and eye movements: local field potentials and effects of DBS.

**Lozano AM:** World Federation of Neurosurgical Societies, 13th International Congress, Marrakech, Morocco, June 2005. 1) Chairman: Brain and spinal stimulation surgery, 2) Speaker: Surgical treatment in Parkinson's disease 3) Chairman: New surgical approaches in functional neurosurgery, 4) Stereotactic and functional neurosurgery.

**Lozano AM:** 14th Meeting of the World Society for Stereotactic and Functional Neurosurgery, Rome, Italy, June 2005. 1) DBS for psychiatric disorders; 2) DBS for epilepsy: The anterior thalamic target.

**Lozano AM:** 16th International Congress on Parkinson's Disease, Berlin, Germany, June 2005. 1) Deep brain stimulator (complications); 2) Deep brain stimulation.

**Lozano AM:** III Neurosurgery Symposium, Buenos Aires, Argentina, May 2005. 1) future of Neuromodulation; 2) Functional surgery for abnormal movement disorders; 3) Functional surgery for epilepsy.

**Lozano AM:** American Society of Stereotactic and Functional Neurosurgery, Cleveland, Ohio, October 2004. 1) Neuromodulation and movement disorders: What does the future hold? 2) Thalamic stimulation: Anterior nucleus.

**Lozano AM:** Movement Disorder Society of Australia Conference, Gold Coast, Australia, April 2005. 1) Pathogenesis & surgical treatment of Parkinson's disease and other movement disorders; 2) Long term observations & challenges in movement disorder surgery.

**Lozano AM:** 7th Meeting of International Neuromodulation Society, Rome, Italy, June 2005 DBS for movement disorders.

**Lozano AM:** 2nd Meeting of the Italian deep brain Stimulation Research Group., Jesi (AN) Italy, December 2004. Deep brain stimulation in disabling neurological diseases.

**Lozano AM:** Neuromodulation Symposium, Naples, Italy, March 2005. History of neurosurgery in movement disorders.



- Lozano AM:** Medtronic Activa User's Group Meeting, Gold Coast, Australia, April 2005. Mechanism of action of DBS - DBS for dystonia.
- Lozano AM:** Elekta Instrument AB Meeting., Stockholm, Sweden, December 2004. New trends in functional neurosurgery.
- Lozano AM:** 9th International Congress of Parkinson's Disease and Movement Disorder Society (MDS), New Orleans, Louisiana, March 2005. Surgical interventions for movement disorders.
- Lozano AM:** XXV Brazilian Congress of Neurosurgery, Goias, Brazil, September 2004. 1) Recording microelectrode; 2) Secondary Parkinsonian; 3) Essential and Cerebellar Tremor; 4) Deep brain stimulation, 5) 1) Surgical treatment of Parkinson's disease: Where are we and where are we heading to? 6) Genic therapy, transplants, and iontoforesis: New advances in the treatment of neurological disease.
- Lozano AM:** 44th Annual Meeting of Japan Society of Stereotactic and Functional Neurosurgery., Osaka, Japan, January 2005. 1) What have you learned about the brain through functional neurosurgery? 2) Surgery for Parkinson's disease: Successes and Challenges; 3) Identifying targets in movement disorder surgery.
- Lozano AM:** Pre-Olympic International Neurosurgical Winter Meeting, Sestriere, Italy, February 2005. A re-evaluation of neurosurgery for psychiatric disorders.
- Lozano AM:** 2nd American Japanese Neurosurgical Symposium, Nagoia, Japan, October 2004. Contemporary surgical treatment of Parkinson's disease.
- Lozano AM:** Localization of brain targets in functional neurosurgery .Latin American Society of Neurological Surgery., Panama City, Panama, October 2004. Deep brain stimulation of generalized epilepsy.
- Lozano AM:** 2005 Southern Neurosurgery Annual Meeting Symposium., Key West, Florida, March 2005. 1) Dystonia, 2) Advances in functional neurosurgery.
- Lozano AM:** Meeting on Parkinson's Disease, Cold Water Spring Harbor Laboratory, January 2005. 1) Neurophysiological attributes of Parkinson's Disease - Insights from intraoperative single neuronal recordings; 2) Intraparenchymal brain delivery of therapeutic compounds for Parkinson's Disease.
- Lozano AM:** Library of Congress Conference on Neuroethics, Overview: Technology & the Brain-computer Interface, State of the Art and Anticipated Advances, Washington, District of Columbia, May 2005. Brain stimulation.
- Lozano AM:** Functional Neurosurgery: Emerging Applications. Congress of Neurological Surgeons, San Francisco, California, October 2004. Gene and infusion therapies.
- Lozano AM:** The Bachmann-Strauss Dystonia & Parkinson's Foundation, New York, New York, November 2004. Results of stimulation and lesions for dystonia.
- Lozano AM:** Digital Masters Symposium. Congress of Neurological Surgeons, San Francisco, California, October 2004. Subthalamic deep brain stimulation for Parkinson's disease.
- Lozano AM:** 2004 E. Harry Boterell Lectureship in Neurosurgery, Toronto Western Hospital, Toronto, Ontario, November 2004. Towards deep brain stimulation to treat refractory major depression.
- Lozano AM:** Section on Stereotactic and Functional Surgery I "Neuromodulation for Epilepsy" Congress of Neurological Surgeons, San Francisco, California, October 2004. Thalamic deep brain stimulation.
- Lozano AM:** 4th Annual Imaging Network Ontario Symposium, Toronto, Ontario, March 2005. Keynote Address: Improving human brain function by modulating brain circuits.
- Lozano AM:** Congress of Neurological Surgeons, San Francisco, California, October 2004. Moderator: Section on Stereotactic and Functional Surgery I "Neuromodulation for Epilepsy".
- Lozano AM:** Neurosurgery in the 21st Century Symposium. Japanese Neurosurgical Society, Nagoya, Japan, October 2004. Plenary Speaker. Developments in functional neurosurgery for movement disorders.
- Lozano AM:** Toronto General Research Institute Rounds, Toronto, Ontario, January 2005. Speaker. Improving human brain function by modulating brain circuits.

**Saint-Cyr JA:** Cognitive and behaviours sequelae of deep brain stimulation of the subthalamic nucleus. Mental Dysfunctions in Parkinson's Disease. Presentation, Salzburg, Austria, October 2004. .

**Saint-Cyr JA:** Deep brain stimulation for PD. Cells, genes and machines: What's best for treating Parkinson's disease. 38th Annual Winter Conference on Brain Research., Breckenridge, Colorado, January 2005.

**Saint-Cyr JA:** Deep brain stimulation: 1.) Clinical aspects of deep brain stimulation. Conference on Translational Neuroscience. University. 2.) Clinical applications and neuroanatomical correlations. University of Kentucky, Department of Anatomy and Neurobiology, Lexington, Kentucky, April 2005.

**Saint-Cyr JA:** Disconnecting the basal ganglia: Physiological mechanisms and neuropsychological consequences of deep brain stimulation in parkinson's disease. Rotman Research Institute, Toronto, ON. April 2005.

**Saint-Cyr JA:** 1.) Dopamine, learning and gambling in PD: a clinical perspective 2.) Basal ganglia, dopamine and learning: Integrating computational and clinical perspectives. Hebrew University and NIH-NIDA, Jerusalem, Israel, June 2005

**Saint-Cyr JA:** Electrode location, anatomical correlates and clinical outcome of STN DBS. University of Minnesota, Department of Neurology, Minnesota, Minneapolis, October 2004.

**Tator CH:** Ontario Camping Association, Toronto, Ontario, January 2005. How to inculcate an injury prevention attitude in your children's camp.

**Tator CH:** Dept. of Neurosurgery, School of Medicine, Ankara University, Ankara, Turkey, March 2005. Tator, C. Lecturer - The Annual Professor Nurhan Avman Lectureship – 1) Spinal Cord Regeneration, Truth or Utopia. 2) Spinal Cord Trauma Management.

**Tator CH:** Turkish Neurosurgical Society, Izmir, Turkey, March 2005. Tator, C. Lecturer. 1) Spinal Cord Regeneration, Truth or Utopia; 2) Spinal Cord Trauma Management.

**Tymianski M:** Royal College of Physicians and Surgeons Visiting Medalist Program: Dalhousie University, Halifax, Nova Scotia, September 2004. Bench to bedside: Fact or Fiction? A Neurosurgical Perspective.

**Tymianski M:** Reykjavik, Iceland, July 2004. Cerebral neuroprotection: Is there hope?

**Tymianski M:** Annual Meeting of Scandinavian Neurological Society, Reykjavik, Iceland, July 2004. Neuroprotection: Is there hope?

**Velumian A:** VII European Meeting on Glial Cell Function in Health and Disease, Amsterdam, the Netherlands, May 2005. Cytoplasmic diffusional pathways within oligodendrocyte-myelin units: Role in myelin maintenance and dysfunction.

**Velumian A:** Canadian Syringomyelia Network: Canadian syringomyelia and Chiari malformation conference, Richmond Hill, Ontario, November 2004. The basic cellular mechanisms of spinal cord white matter in health and disease.

**Wallace MC:** 3 Congresso Gaucho de Neurologia e Neurocirurgia, Brazil, April 2005. 1) DVAF classification and treatment; 2) Hypertensive hematomas - What are the news; 3) Neurovascular Program in Toronto - The Neurosurgeon's Role; 4) Treatment of ruptured/unruptured aneurysm. What should the neurosurgeon do? 5) Toronto Western experience? An interactive session.

**Wallace MC:** Universidade Federal do Rio Grande do Sul, Brazil, March 2005. Mechanisms of neuronal death after experimental cerebral ischemia.

**Wallace MC:** 16th Annual Meeting North American Skull Base Society, Toronto, Ontario, April 2005. Neurovascular disease in post fossa: Indications and approaches.

**Wallace MC:** 1st International Levantine Forum, Bari, Italy, November 2004. Overview of vascular malformations of CNS, brain vascular and CAV malformations.

**Wallace MC:** Hospital Moinhos de Vento, Brazil, March 2005. The multidisciplinary management of cerebrovascular disease.

**Wallace MC:** Visiting Professorship, University of Buffalo, Buffalo, New York, January 2005. Treat the lesion or the patient: Tough question.



## 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 [NSERC] (\$628,391 2004 - 2007).*

AOSpine North America Fellowship Program. *Fehlings MG, Massicotte EM, Rampersaud YR, Lewis S: AOSpine North America (\$360,000 2004 - 2007).*

Attention-related responses in the human cingulate cortex. *Davis KD: Ontario Mental Health Foundation (\$85,127 2003 - 2005).*

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).*

Cellular mechanisms of secondary traumatic neuronal injury. *Tymianski M: CIHR grant MOP 53353 (\$315,000 2002 - 2005).*

Characterization and identification of oncogenic receptor protein tyrosine kinase signalling complexes in malignant astrocytomas. *Guha A, Moran M: OCN (\$110,000 2003 - 2005).*

Clinician scientist sward Phase II 3 year renewal. *Tymianski M: CIHR (\$165,000 2003 - 2005).*

Compassionate use study agreement # RAC 04-074 (Op-1). *Fehlings MG: Stryker Biotech (\$20,000 2004).*

Correction of rett phenotype by exogenous Ggnc delivery. *Eubanks JH, McIntyre Burnham W, Carter Snead III O: Canadian Institutes of Health Research (\$224,315 2002 - 2004).*

Cytoskeletal regulation of traumatic brain injury. *Tymianski M, Arundine M: CIHR INMHA Doctoral Award (\$20,500 2002 - 2005).*

Cytoskeletal regulation of traumatic brain injury. *Tymianski M, Arundine M: Ontario Neurotrauma Foundation Doctoral Award (Declined) (\$20,000 2002 - 2005).*

Development and characterization and 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).*

Do serotonin transporter gene polymorphisms influence serotonin transporter expression in human brain? *Kish SJ, Guttman M, Houle S, Saint-Cyr JA: CIHR (\$332,883 2001 - 2004).*

Doctoral training award to Lori Mutsaers (MD-PhD student): Role of voltage dependent K<sup>+</sup> channels in posttraumatic axonal dysfunction: Molecular and immunocytochemical studies. *Fehlings MG: Medical Research Council of Canada (\$129,201 1998 - 2004).*

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 [PSI] (\$148,600 2004 - 2005).*

Engineering healing for spinal cord injury repair. *Shoichet MS, Tator CH: National Sciences and Engineering Research Council of Canada (NSERC) (\$676,391 2004 - 2007).*

Enhancing axonal regeneration following spinal cord injury by localized delivery of neuroregenerative factors. *Shoichet M, Tator C.H: Canadian Institutes of Health Research (CIHR) (\$432,000 2004 - 2008).*

Ethical challenges in the preparedness and response for SARS: An interdisciplinary research study. *Upshur REG, 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).*

Evaluation of effective stimulation parameters for seizure control in rats with thalamic deep brain stimulation, using a pilocarpine seizure model. *Hodaie M, , Lozano A: JFW Gettys Neurosurgery Research Fund (\$20,000 2005).*

Evaluation of effective stimulation parameters for seizure control in rats with thalamic deep brain stimulators, using a pilocarpine seizure model. *Hodaie M, Lozano A: Dean's Fund New Staff Grant* (\$9,800 2005 - 2010).

Examination of the neuroprotective effect of topiramate in spinal cord injury. *Fehlings MG: Johnson and Johnson Pharmaceutical Research & Development, L.L.C.* (\$189,844 2002 - 2005).

Fellowship award to E. Eftekharpour: Repair of the chronically injured spinal cord: Use of neural stem cell transplantation to promote spinal cord remyelination. *Eftekharpour E, Fehlings MG: Christopher Reeve Paralysis Foundation* (\$140,000 2005 - 2007).

Fellowship award to S. Karimi-Abdolrezaee: Repair of the chronically injured spinal cord: Use of neural stem cell transplantation (2004-SCI-FS-15). *Karimi-Abdolrezaee S, Fehlings MG: Ontario Neurotrauma Foundation* (\$77,000 2004 - 2006).

Finding Cures for glioblastomas: Characterization of a Mouse Transgenic Astrocytoma Model as a Therapeutic Testing Platform. *Guha A: Cleveland Clinic Foundation* (\$190,000 2002 - 2004).

Functional evaluation of glial AMPA/kainate receptors in spinal cord: white matter: implications for understanding the pathophysiology of spinal cord ischemia (NA 5159). *Fehlings MG: Heart and Stroke Foundation of Ontario* (\$117,693 2003 - 2005).

Gender differences in child development: vulnerability to chronic pain. *McGrath PA, Davis KD, Katz J, Brown SC, Geist R: CIHR - New Emerging Team* (\$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 electroporation for gene therapy. *Hutchison WD: Krembil Seed Fund* (\$50,000 2004 - 2005).

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 (CIHR)* (\$392,319 2003 - 2006).

Isolation and characterization of a novel ischemia-induced gene. *Eubanks JH, Wallace MC: Heart & Stroke Foundation of Ontario* (\$125,632 2003 - 2005).

Maladaptive and adaptive markers of pain and sensorimotor cortical plasticity following repair of peripheral nerve injuries: A pilot study. *Davis KD, Anastakis D, Mikulis D, Chen R: AstraZeneca/The University of Toronto Centre for the Study of Pain* (\$12,500 2004 - 2005).

Mechanisms of axonal dysfunction in the spinal cord injury: Role of functional changes in spinal cord white matter glia. *Velumian A, Fehlings MG: Cervical Spine Research Society* (\$38,765 2003 - 2004).

Molecular mechanisms of neuronal injury. *Tymianski M, 12 investigators across Canada: Canadian Stroke Networks* (\$765,000 2003 - 2005).

Multi-User Operating Grant--Centralized Flow Cytometry: OCI/PMH. *Guha A and Group: Medical Research Council of Canada* (\$641,895 1999 - 2004).

Neovascularization in cerebral ischemia. *Guha A, Wallace MC, Nagy A: Heart & Stroke Foundation of Ontario* (\$246,428 1998 - 2004).

Neovascularization in Cerebral Ischemia, Premiers Research Excellence Award: Transgenic Mouse Modeling of Malignant Astrocytomas. *Guha, A, Nagy PI, Wallace C: Heart and Stroke* (\$100,000 2000 - 2004).

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 death receptor (RHWIM 004-04). *Fehlings MG: Rick Hansen Man in Motion Foundation* (\$12,375 2004 - 2005).

Neuroprotection after spinal cord injury by targeting the Fas receptor (PSI #04-17). *Fehlings MG: The Physicians' Services Incorporated Foundation* (\$140,500 2004 - 2006).





North american clinical trials network for the treatment of spinal cord injury. *Fehlings M, Tator CH: Christopher Reeve Paralysis Foundation, Clinical Trial Agreement (\$179,520 2004 - 2005).*

Pathophysiology of oligodendroglial-axonal interactions in spinal cord white matter injury. *Velumian A, Fehlings MG: Department of Medicine / Dean's Fund/ New Staff Grant (\$9,994 2004 - 2005).*

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: Mayo Clinic Rochester, Gentili, F. (site leader), Wallace C, Tymianski M., Willinsky R.,: National Institute of Neurological Disorders and Stroke. (\$25,000 2004 - 2008).*

Post-doctoral Fellowship Award to Bradley Jacobs for "The role of FAS and p75 death receptor pathways in apoptosis after spinal cord injury". *Fehlings MG: Canadian Institutes of Health Research (\$253,125 2001 - 2006).*

Pre-clinical studies on treatment of stroke with inhibitors of NMDA receptor-PSD-95 interaction. *Tymianski M, Salter MW Wang YT, Gurd JW, Tasker A: Canadian Stroke Networks (\$500,000 2003 - 2005).*

Regenerative medicine strategies for spinal cord injury repair: Integration of stem cell biology, nanotechnology, bioengineering approaches and neurosurgical application (RMF-72552). *Fehlings MG, Morshead C, Shoichet M, Stanisz G, Tator CH, van der Kooy D: Canadian Institutes of Health Research (CIHR) (\$1,500,000 2004 - 2009).*

Role of angiopoietins in human astrocytomas. *Guha A: NCIC (\$420,000 2004 - 2007).*

Spatial summation and discrimination of pain in humans- An fMRI study. *Davis KD, Defrin R: International Association For The Study of Pain - Collaborative Research Grant (\$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).*

Studentship award to S. Robins: Characterization of the neuroprotective effects of soluble FAS receptor following acute spinal cord injury (2004-SCI-FS-14). *Robins S, Fehlings MG: Ontario Neurotrauma Foundation (\$40,000 2004 - 2006).*

The role of epigenetics in neuronal excitotoxicity and apoptosis. *Eubanks JH: Heart and Stroke Foundation of Ontario (\$149,548 2003 - 2005).*

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 (NASS) (\$115,986 2003 - 2005).*

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 R., Fehlings MG.; Velumian A: Krembil Scientific Development Seed Fund (\$60,000 2005 - 2006).*

The surgical treatment of acute spinal cord injury study (STASCIS). *Fehlings MG: The Krembil Foundation (\$300,000 2002 - 2005).*

Transforming neuropathic pain research in Canada. *Salter MW, Davis KD, De Koninck Y, Mogil J, Zhuo M, Kapur S: Neuroscience Canada- Brain Repair Program (\$1,500,000 2004 - 2007).*

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**

**Fehlings MG:** Award of merit in clinical research from the Heart and Stroke Foundation of Ontario for poster “Anemia after CNS injury: An autonomic consequence of disruption of descending vasomotor pathways after traumatic cervical spinal cord injury” by J Furlan and MG Fehlings, December 2004.

**Fehlings MG:** Cited in the Who’s Who in Medical Sciences Education, February 2005.

**Lozano AM:** Elected American Academy of Neurological Surgery, July 2004.

**Lozano AM:** Elected President, American Society for Stereotactic and Functional Neurosurgery, October 2004.

**Lozano AM:** Nominated for President, (2005-2009) World Society for Stereotactic and Functional Neurosurgery, July 2004.

**Lozano AM:** Nominated to German Academy of Neurological Surgery, July 2004.

**Tator CH:** Award of Appreciation from the Canadian Congress of Neurological Sciences in recognition of his tenure as President of the Canadian Brain and Nerve Health Coalition, June 2005.

**Velumian A:** 1st Prize: Poster competition. Basic Science Award. Heart & Stroke Clinical Update, Toronto Ontario, December 8-11, 2004., December 2004.

**Wallace MC:** Division of Neurosurgery, Alan R. Hudson Teaching Award, April 2005.



## **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 - Assistant 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 - Assistant Professor**

## **Publications**

**Charles MN, Bourne RB, Davey JR, Greenwald AS, Morrey BF, Rorabeck CH:** Soft-tissue balancing of the hip: The role of femoral offset restoration. In: Instructional Course Lectures (Vincent D. Pellegrini, JR, MD, eds). American Academy of Orthopaedic Surgeons, Rosemont, IL: 2005: pp 131-141.

**Clark DL, von Schroeder HP:** Scapholunate ligament injury: the natural history. Canadian Journal of Surgery: August 2004: 47, No 4: pp 298-299.

**Clark JP, Hudak PL, Hawker GA, Coyte PC, Mahomed NN, Kreder HJ, and Wright JG:** The moving target: A qualitative study of elderly patients' decision-making regarding total joint replacement surgery. Journal of Bone and Joint Surgery (American): July 2004: 86-A: pp 1366-1374.

**Fehlings MG, Zeidman SM, Rampersaud YR:** Cauda equina syndrome. In: Spine Surgery, Techniques, Complications Avoidance and Management (EC Benzell, ed). Elsevier Churchill Livingstone, Philadelphia, Pennsylvania: 2005: pp 1130.

**Karkouti K, McCluskey S. A, Evans L, Mahomed N, Ghannam M, Davey JR:** Erythropoietin is an effective clinical modality for reducing RBC transfusion in joint surgery. Canadian Journal of Anaesthesia: January 2005: 52: pp 362-368.

**Katz JN, Barrett J, Mahomed N, Baron JA, Wright RJ, Losina E:** Association between hospital and surgeon procedure volume and the outcomes of total knee replacement. Journal of Bone and Joint Surgery (American): September 2004: 86: pp 1909-1916.

**Lau J, Mahomed N, Schon L:** Results of an internet survey determining the most frequently used ankle scores by AOFAS members. Foot Ankle: June 2005: 26(6): pp 479-482.

**Mahomed NN, Barrett J, Katz JN, Baron JA, Wright WJ, Losina E:** Epidemiology of total knee replacement in the United States medicare population. Journal of Bone and Joint Surgery: June 2005: 87-A: pp 1222-1228.

**McCartney CJ, Brull R, Chan VW, Abbas S, Graham B, Nova H, Rawson R, Anastakis DJ, von Schroeder HJ:** Early but no long-term benefit of regional compared with general anaesthesia for ambulatory hand surgery. Anesthesiology: August 2004: 101: pp 461-467.

**Rampersaud YR, Pik JHT, Salonen D, Farooq S:** Clinical accuracy of fluoroscopic computer-assisted pedicle screw fixation: A CT analysis. Spine: February 2005: 30 (7): pp E183-190.

**von Schroeder HP, Malempati H, Van Houwelingen A, Van Vliet A:** Orthopaedics. In: The Toronto Notes Toronto Notes Medical Publishing, Toronto: 2005: pp OR 1-44.

**White LM, Wunder JS, Bell RS, O'Sullivan B, Catton C, Ferguson, Blackstein M, Kandel R:** Histologic assessment of peritumoral edema in soft tissue sarcoma. international journal of radiation oncology, biology, physics: April 2005: 61: pp 1439-1445.

**Yagaer TD, Edmpsey AA, Tang HH, Stamaniou D, Chao S, Marshall KW, Liew CC:** First comprehensive mappings of cartilage transcripts to the human genome. Genomics: July 2004: 84: pp 524-535.

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

**Davey JR:** American Academy of Orthopaedic Surgeons, Washington, District of Columbia, February 2005. A randomized controlled trial of hydroxyapatite coated femoral hip prostheses.

**Davey JR:** Canadian Orthopaedic Association, Montreal, Quebec, June 2005. A randomized controlled trial of hydroxyapatite coated femoral hip prostheses.

**Davey JR:** The Orthopaedic & Arthritic Institute Arthroplasty Symposium, Toronto, Ontario, June 2005. Avoiding limp through offset restoration; avoiding nerve injury.

**Davey JR:** Advances in Hip and Knee Arthroplasty., San Francisco, California., June 2005. Cemented total hip arthroplasty. femoral offset.

**Davey JR:** Contemporary and Future Concepts in Total Hip and Knee Arthroplasty. Muskoka, Ontario., September 25 - 26, 2004. 1) Unicompartement Total Knee. 2) TKA Following High Tibial Osteotomy. 3) Minimally Invasive Total Hip Arthroplasty.

**Davey JR:** Geriatric Medicine for the Practising Physician, Ontario Long Term Care Physicians, Toronto, Ontario, October 2004. Post Hip Fracture Treatment.

**Davey JR:** University of Virginia, Charlottesville, Virginia, May 2005. Soft tissue balancing in total hip arthroplasty.

**Mahomed N N:** The Canadian Orthopaedic Association, Montreal, Quebec, June 2005. Access to care: What can be done in Canada? The National Standards Committee Wants Your Input into Federal/Provincial Policy Recommendations & What is the Physician's Liability?

**Mahomed N N:** MEDEC Orthopaedic Committee, Montreal, Quebec, June 2005. Orthopaedic health economics / future Plans for Ontario Disease Management.

**Mahomed N N:** Society of Graduates in Health Policy, Management & Evaluation, Toronto, Ontario, May 2005. Progress in transforming total joint replacement care in the GTA.

**Mahomed N N:** The Arthritis Society, Toronto, Ontario, June 2005. Total joint replacement are you ready for it?

**Mahomed N N:** University of Ottawa, Ottawa, Ontario, November 2004. 1) Towards an Evidence Based Continuum of Care for Total Joint Arthroplasty. 2) Volume and Outcomes of Joint Replacement Surgery in the US.

**Marshall KW:** Orthopaedic Research Society 51st annual meeting, Washington, District of Columbia, January 2005. Expressed genome signatures identify blood biomarkers of human osteoarthritis.

**Marshall KW:** Proceedings of the 10th SCBA International Symposium, Beijing, China, July 2004. Illuminating the molecular pathways underlying osteoarthritis of the knee.

**Marshall KW:** Annual meeting of ASCI, Orlando, Florida., January 2005. Novel human cancer biomarkers identified by blood cells gene expression.

**Rampersaud YR:** 17th Annual Ski with the Spine Center, Whistler, British Columbia, January 2005. Cervical spine - top 10 papers of 2004.

**Rampersaud YR:** Orthopaedic Research Societies Meeting, Banff, Alberta, October 2004. Computer-assisted spinal surgery.

**Rampersaud YR:** Spine Trauma Study Group Meeting, New Orleans, Los Angeles, September 2004. Digital imaging systems: A validation study.

**Rampersaud YR:** 31 Annual Scientific Meeting of the American Spinal Injury Association, Dallas, Texas, May 2005. Is there a role for minimally invasive surgical treatment for T-L trauma?

**Rampersaud YR:** AAOS Specialty Day, Federation of Spine Associations, Washington, District of Columbia, February 2005. Is there a role for minimally invasive surgical treatment for T-L trauma?

**Rampersaud YR:** Japanese Society for Minimally Invasive Orthopaedic Surgery, Okayama, Japan, November 2004. Minimally invasive technique for spine fusion.

**Rampersaud YR:** Emerging Technologies Focus Group (Summer Think Tank), Phoenix, Arizona, September 2004. Motion preserving spinal technologies.

**Rampersaud YR:** AANS Masters Series Program, Boston, Massachusetts, August 2004. Sacral and pelvic fixation.



**Rampersaud YR:** Canadian Orthopaedic Residents Association (CORA), Montreal, Quebec, November 2004. Surgical management of metastatic spinal disease.

**von Schroeder HP:** Trimed, Toronto, Ontario, December 2004. Course organizer and instructor, distal radius fixation.

**von Schroeder HP:** Queen's University, Kingston, Ontario, December 2004. Scaphoid fractures and non-unions.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A prospective clinical trial of 1st MTPJ arthrodesis compared to 1st MTPJ hemiarthroplasty in severe hallux rigidus. *Lau J, Daniels T, Waddell J: Zimmer Research Fund (\$10,000 2004 - 2005).*

A prospective clinical trial to determine the role of ankle distraction in the treatment of ankle arthritis. *Lau J: Rehabilitation Solutions Research Advisory Board (\$10,000 2004 - 2005).*

A randomized controlled clinical trial of 1st MTPJ arthrodesis compared to 1st MTPJ hemiarthroplasty in severe hallux rigidus. *Lau J, Daniels T, Waddell J, Mahomed N: Canadian Orthopaedic Foundation (\$10,000 2003 - 2004).*

A randomized controlled clinical trial of 1st MTPJ arthrodesis compared to 1st MTPJ hemiarthroplasty in severe hallux rigidus. *Lau J, Daniels T, Mahomed N: Physician Service Incorporated (\$73,000 2004 - 2006).*

An Integrated Model of Care for Total Joint Replacements. *Nizar M, Davis A: Ontario Ministry of Health and Longterm Care (\$700,000 2005 - 2007).*

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).*

Defining the Role of Electrodiagnostic Testing in the Diagnosis of Carpal Tunnel Syndrome. *Graham B, Ashby P: Research Advisory Council, Workplace Safety and Insurance Board (\$45,472 2003 - 2004).*

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 (CIHR) (\$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 (CIHR) (\$75,000 2003 - 2006).*

Mid-Term followup of primary and revision total hip arthroplasty. *Katz JN, Mahomed NN, Harris WH, Phillips CS, Baron J: The Arthritis Foundation (US) (\$450,000 2000 - 2005).*

Optimizing in vitro osteogenesis: applications towards the study of scaphoid fracture nonunions. *von Schroeder HP: Manus Canada (\$2,500 2004 - 2006).*

Predictors of disability outcomes following revision total knee arthroplasty. *Davis A, Mahomed N, Davey JR, Schemitsch E, Grabuz D, Sczali J, Gignac M, Waddell J, Gross A, MacDonald S, Sekundiak T: Canadian Institutes for Health Research (\$195,000 2001 - 2004).*

The biology of scaphoid fracture nonunions. *von Schroeder HP: The Physicians' Services Incorporated Foundation (\$121,000 2004 - 2006).*

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).*

## Honours Received

**Lau J:** North American Travelling Fellowship (Canadian Orthopaedic Association, 2005), June 2005.

**Lewis SJ:** AO Spine Centre of Excellence Award, September 2004.

**Lewis SJ:** Education Award for Outstanding Contributions to Surgical Skills Education, May 2005.

**Lewis SJ:** Robert Salter Award, for Outstanding Teaching of the Orthopaedic Residents, University of Toronto, Department of Surgery, November 2004.

**Mahomed NN:** Wightman-Berris Academy teaching award, May 2005.

## **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. J.E. Lipa - Assistant Professor**

**Dr. R.T. Manktelow - Professor**

**Dr. P.C. Neligan – Professor (Division Head)**

## **Publications**

**Al-Shraim M, Mahboub B, Neligan PC, Chamberlain D, Ghazarian D:** Primary pleural epitheloid haemangioendothelioma with metastases to the skin: A case report and literature review. *J Clin Path*: January 2005: 58: pp 107-109.

**Anastakis DJ, Bonnard C:** Neurotization in brachial plexus injuries. In: *Surgery of Disorders of the Hand and Upper Extremity. Tendon, Nerves and Other Disorders.* (Tubiana and Gilbert, ed). Taylor & Francis, London: 2004: pp 247 - 261.

**Anastakis DJ, Bonnard C:** Paralytic disorders of the shoulder girdle. In: *Surgery of Disorders of the Hand and Upper Extremity. Tendon, Nerves and Other Disorders.* (Tubiana and Gilbert, ed). Taylor & Francis, London: 2004: pp 263 - 275.

**Arellano R, Gan BS, Salpeter MJ, Yeo E, McCluskey S, Pinto R, Irish J, Ross DC, Doyle DJ, Parkin J, Brown D, Rotstein L, Witterick I, Matthews W, Yoo J, Neligan PC, Gullane PG, Lampe H:** A triple-blinded randomized trial comparing the hemostatic effects of large-dose 10% hydroxyethyl starch 264/0.45 versus 5% albumin during major reconstructive surgery. *Anesth Analg*: June 2005: 100: pp 1846-53.

**Audet N, Palme CE, Gullane PJ, Gilbert RW, Brown DH, Irish J, Neligan PC:** Cutaneous metastatic squamous cell carcinoma to the parotid gland: analysis and outcome. *Head and Neck Surgery*: August 2004: 26: pp 727-32.

**Dvali L, Mackinnon SE:** Peripheral nerve repair and transfers. In: *Current Therapy in Plastic Surgery* (McCarthy J, Galiano R, Boutros S., eds). WB Saunders, Philadelphia: 2005: pp Chapter 74.

**Fagien S, Born TM:** Artecoll: A long-lasting injectable wrinkle filler material: Report of a controlled, randomized, multicenter clinical trial of 251 subjects. *Plastic and Reconstructive Surgery*: September 2004: 114(4): pp 977-979.

**Khan A, Ashrafpour H, Huang N, Neligan PC, Kontos C, Zhong A, Forrest CR, Pang CY:** Acute local subcutaneous VEGF165 injection of augmentation of skin flap viability: efficacy and mechanism. *Physiol Regul Integr Comp Physiol*: November 2004: 287(5) R1219-29.

**La Scala GC, O'Donovan DA, Yeung I, Darko J, Addison PD, Neligan PC, Pang CY, Forrest CR:** Radiation-induced craniofacial bone growth inhibition: Efficacy of cytoprotection following a fractionated dose regimen. *Plastic and Reconstructive Surgery*: June 2005: 115: pp 1973-1985.

**McCartney CJL, Brull R, Chan VWS, Katz J, Abbas S, Graham B, Nova H, Rawson R, Anastakis DJ, vonSchroeder HP:** Early but no long-term benefit of regional compared to general anesthesia for ambulatory hand surgery. *Anesthesiology*: October 2004: 101 (2): pp 461-7.

**Moses MA, Addison PD, Neligan PC, Ashrafpour H, Huang N, Zair M, Rassouli A, Correst CR, Grover GJ, Pang CY:** Mitochondrial KATP channels in hind limb remote ischemic preconditioning of skeletal muscle against infarction. *American J. Physiol Heart Circ Physiol*. February 2005: 288(2) H559-67.

**Neligan PC:** Application of a "Simplified Nomenclature for Compound Flaps" to the Anterolateral Thigh Flap. *Plastic Reconstr. Surg*. May 2005: 115(4) 1056-1057.

**Ng RL, Youssef A, Kronowitz SJ, Lipa JE, Potochny J, Reece GP:** Technical variations of the bipedicle TRAM flap in unilateral breast reconstruction: Effects of conventional versus microsurgical techniques of pedicle transfer on complications rates. *Plastic and Reconstructive Surgery*: August 2004: 114(2): pp 374-84.

**Singhal A, Bray PW, Bernstein M:** Scalp ulceration from a circumferential head dressing after craniotomy: Case report of an uncommon complication due to human error. *The Canadian Journal of Plastic Surgery*: September 2004: 12: pp 210-12.



## Invited Visits to Other Hospitals/Universities

**Anastakis DJ:** 35th Annual Meeting, American Association for Hand Surgery, San Juan, Puerto Rico, January 2005. AAHS/ASPN/ASRM Combined Panel Discussor. Restoration of motor function following muscle loss.

**Anastakis DJ:** 15th Annual Meeting of the Sunderland Society, Toronto, Ontario, September 2004. Cortical adaptation and maladaptation following peripheral nerve injury, Panel Moderator. Anastakis DJ, Davis K, Chen R, Mikulis DJ, Hunter J.

**Dvali LT:** American Association of Hand Surgery, Annual Meeting Panel, Sanibel Island, Florida, January 2005. Bridging the gap: The role of end-to-side neurotization.

**Dvali LT:** American Society for Surgery of the Hand, Annual Meeting Instructional Course, New York, New York, September 2004. Nerve injuries: Reconstructive options using nerve transfers.

**Lipa JE:** WellSpring - Sunnybrook and Women's College Health Sciences Centre, Toronto, Ontario, October 2004. Breast reconstruction: Information and discussion.

**Lipa JE:** GAM Canada (Groupe Pour L'Avancement de la Microchirurgie) 26th Annual Meeting, Nanaimo, British Columbia, June 2005. Panel Discussion: "This perforator flap is now my workhorse".

**Lipa JE:** Combined Oxford/Cambridge Audit & Research Day, Cambridge, England, November 2004. A) Perforator Flaps in Breast Reconstruction. B) Reconstruction in the Radiated Breast.

**Lipa JE:** Ontario Melanoma Update 2005 - Current Issues in the Diagnosis and Management of Melanoma, Niagara-on-the-Lake, Ontario, February 2005. Sentinel lymph node biopsy in head and neck melanoma.

**Neligan PC:** American Society of Plastic Surgery Annual Meeting, Philadelphia, Pennsylvania, October 2004. 1) Instructional Course: Multimedia presentations for education. 2) Panel: If I knew then what I know now: Practice and outcome improvement through critical analysis of research and clinical experience. Panelist.

**Neligan PC:** 6th International Conference on Head and Neck Cancer, Washington, District of Columbia, August 2004. Invited Panelist: Reconstruction of the oral cavity. Head and Neck Reconstruction Panel Presentation.

**Neligan PC:** 5th HKL Flap Dissection Workshop, Department of Anatomy, University Kebangsaan, Kuala Lumpur, Malaysia, August 2004. Lecture I: Flaps of the head and neck, 2. Lecture IV: Local flaps of the head and neck. Lecture V: Reconstructive techniques.

**Neligan PC:** Plastic Surgery Research Council, Toronto, Ontario, May 2005. Panel 1: Craniofacial, tissue engineering and limb transplant. The evolution and future of head and neck reconstruction.

**Neligan PC:** Plastic Surgery Education Foundation, San Francisco, California, November 2004. PSEF Symposium - Moderator: Achieving aesthetics and function through reconstructive surgery: 1) Local flaps that work best for eyelids, nose and ears. 2) Perforator flaps in breast reconstruction: Is this the new standard for autogenous reconstruction? 3) Recent technical advances in breast reconstruction.

**Neligan PC:** 6th Annual International Interventional Neuroradiology Symposium, Toronto, Ontario, September 2004. Surgical management of face and scalp AVMs.

**Neligan PC:** University of Montreal, Montreal, Quebec, May 2005. Visiting Professor: Fascio-cutaneous Flaps.

**Neligan PC:** Universiti Sains Malaysia, Kota Baru, Kelantan, Malaysia, August 2004. Visiting Professor: 1) Overview of reconstructive surgery. 2) The changing face of microvascular reconstruction. 3) Recent advances in reconstructive microsurgery. 4) Pre-clinical and clinical research in plastic surgery. 5) The Canadian training system.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

Development of questionnaire to assess the effectiveness of facial paralysis reconstruction. *Manktelow RT, Binhammer P: Physicians Services Incorporated* (\$68,000 2003 - 2004).

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).

Maladaptive and adaptive markers of pain and sensorimotor cortical plasticity following repair of peripheral nerve injuries: A pilot study. *Davis K, Anastakis DJ, Mikulis D, Chen R: University of Toronto Centre for the Study of Pain/AstraZeneca Program* (\$12,000 2004 - 2005).

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* (\$100,000 2005 - 2006).

Return to work outcomes after digital replantation: A Multidimensional Analysis. *Dvali L: Rehabilitations Solutions Research Advisory Board* (\$9,750 2004 - 2005).

Skin flap ischemia: Pathophysiology and pharmacological intervention. *Pang CY, Neligan PC: CIHR* (\$402,800 2001 - 2006).

## Honours Received

**Neligan PC:** Distinguished Service Award for Contributions to Technology Initiatives with the Plastic Surgery Educational Foundation, October 2004.





## **DIVISION OF THORACIC SURGERY**

**Dr. G.E. Darling - Associate Professor**

**Dr. M. de Perrot - Assistant Professor**

**Dr. M.R. Johnston - Associate Professor**

**Dr. S. Keshavjee - Professor (Division Head)**

**Dr. M.F. McKneally - Professor Emeritus**

**Dr. M. Liu - Associate Professor**

**Dr. A.F. Pierre - Assistant Professor**

**Dr. T.K. Waddell - Assistant Professor**

## **Publications**

**Andrade CF, Waddell TK, Keshavjee S, Liu M:** Innate immunity and organ transplantation: the potential role of Toll-like receptors. *American Journal of Transplant*: June 2005: 5: pp 969-975.

**Blackhall FH, Wigle D, Jurisca I, Pintilie M, Liu N, Darling G, Johnston MR, Keshavjee S, Waddell TK, Shepherd FA, Tsao M-S:** Validating the prognostic value of marker genes derived from a non-small cell microarray study. *Lung Cancer*: November 2004: 46: pp 197-204.

**D'Ovidio F, Mura M, Tsang M, Waddell TK, Hutcheon MA, Singer LG, Hadjiladis D, Chaparro C, Gutierrez C, Pierre A, Darling G, Liu M, Keshavjee S:** Bile acid aspiration and the development of bronchiolitis obliterans after lung transplantation. *Journal of Thoracic and Cardiovascular Surgery*: June 2005: 129: pp 1144-1152.

**Darling G, Abdurahman A, Yi Q, Johnston M, Waddell T, Keshavjee S, Pierre A, Ginsberg R:** The risk of right pneumonectomy: The role of bronchopleural fistula. *Annals of thoracic surgery*: February 2005: 79: pp 433-437.

**Darling G, Maziak D, Clifton J, Finley R and the members of the Canadian Association of Thoracic Surgery:** The practice of thoracic surgery in Canada. *Canadian Journal of Surgery*: December 2004: 47: pp 438.

**de Perrot M, Chernenko S, Waddell TK, Shargall Y, Pierre AF, Hutcheon M, Keshavjee S:** Role of lung transplantation in the treatment of bronchogenic carcinomas for patients with end-stage pulmonary disease. *Journal of Clinical Oncology*: November 2004: 22(21): pp 4351-6.

**de Perrot M, Quadri SM, Imai Y, Keshavjee S:** Independent ventilation of the graft and native lungs in vivo after rat lung transplantation. *Annals of Thoracic Surgery*: June 2005: 79: pp 219-2171.

**de Perrot M, Snell GI, Babcock WD, Meyers BF, Patterson G, Hodges TN, Keshavjee S:** Strategies to optimize the use of currently available lung donors. *Journal of Heart and Lung Transplantation*: October 2004: 23(10): pp 1127-34.

**de Perrot M, Fadel E, Musot S, de Palma A, Chapelier A, Darteville P:** Resection of locally advanced (T4) non-small cell lung cancer with cardiopulmonary bypass. *Annals of Thoracic Surgery* 2005 May: 79: pp 1691-1696.

**de Perrot M, Keshavjee S:** Primary tumors of the thymus. In: *Current Surgical Therapy* (John L Cameron, ed). Elsevier Science, Philadelphia 2004: pp 690-695.

**de Perrot M, Keshavjee S:** Lung Preservation. *Seminars in Thoracic and Cardiovascular Surgery*: December 2004: 16(4): pp 300-8.

**Dos Santos CC, Han B, Andrade CF, Bai X, Uhlig S, Hubmayr R, Tsang M, Lodyga M, Keshavjee S, Slutsky AS, Liu M:** DNA microarray analysis of gene expression in alveolar epithelial cells in response to TNF-alpha, LPS and cyclic stretch. *Physiol Genomics*: November 2004: 19(3): pp 331-42.

**Dutly AE, Andrade C, Verkaik R, Kugathasan L, Trogadis J, Liu M, Waddell TK, Stewart DJ, Keshavjee S:** A novel modified orthotopic model for post-transplant obliterative bronchiolitis revealing angiogenesis from the pulmonary microcirculation. *American Journal of Transplantation*: February 2005: 5: pp 248-54.

- Han B, Bai XH, Lodyga M, Xu J, Wang BB, Keshavjee S, Post M, Liu M:** Conversion of mechanical force into biochemical signaling. *Journal of Biochemical and Cell Biology*: December 2004: 279(52): pp 54793-801.
- Keshavjee S, Davis RD, Zamora MR, de Perrot M, Patterson GA:** A randomized placebo controlled trial of complement inhibition in ischemia-reperfusion injury after lung transplantation in humans. *Journal of Thoracic and Cardiovascular Surgery*: February 2005: 129(2): pp 423-8.
- Liu J, Blackhall F, Seiden-Long I, Jurisica I, Navab R, Liu N, Radulovich N, Wigle D, Sultan M, Pintilie M, Hu M, Tsao M-S, Johnston MR:** Modelling of lung cancer by an orthotopically growing H460SM variant cell line reveals novel candidate genes for systemic metastasis. *Oncogene*: August 2004: 23: pp 6316-6324.
- Martins S, de Perrot M, Imai Y, Yamane M, Quadri S, Segall L, Dutly A, Sakiyama S, Chaparro A, Waddell TK, Liu M, Keshavjee S:** Transbronchial administration of adenoviral-mediated interleukin-10 gene to the donor improves function in a pig lung transplant model. *Gene Therapy*: November 2004: 11(24): pp 1786-96.
- McKneally MF, Ignagni E, Martin DK, D'Cruz J:** The leap to trust: perspective of cholecystectomy patients on informed decision making and consent. *Journal of the American College of Surgeons*: July 2004: 199: pp 51-57.
- Navab R, Gonzalez-Santos JM, Johnston MR, Liu J, Brodt P, Tsao MS, Hu J:** Expression of chicken ovalbumin upstream promoter-transcription factor II enhances invasiveness of human lung carcinoma cells. *Cancer Research*: August 2004: 64: pp 5097-5105.
- Peterson MD, Jin R, Hyduk S, Duchesneau P, Cybulsky MI, Waddell TK:** Monocyte adhesion to xenogenic endothelium during laminar flow is dependent on a-Gal-mediated monocyte activation. *Journal of Immunology*: June 2005: 174: pp 8072-8081.
- Peterson MD, Vlasova EV, DiCiano-Oliveira, Downey GP, Cybulsky MI, Kapus A, Waddell TK:** Monocyte-induced endothelial calcium signalling in early xenogeneic endothelial activation. *American Journal of Transplantation*: February 2005: 5: pp 237-47.
- Quadri SM, Segall L, de Perrot M, Han B, Edwards V, Jones N, Waddell TK, Liu M, Keshavjee S:** Caspase inhibition improves ischemia-reperfusion injury after lung transplantation. *American Journal of Transplantation*: February 2005: 5(2): pp 292-9.
- Robb A, Etchells E, Cusimano M, Cohen R, Singer PA, McKneally MF:** A randomized trial of teaching bioethics to surgical residents. *American Journal of Surgery*: February 2005: 189: pp 453-457.
- Saijan U, Moreira J, Liu M, Corey M, Humar A, Chapparo C, Forstner J, Keshavjee S:** A novel model to study bacterial adherence to the transplanted airway: inhibition of Burkholderia cepacia adherence to human airway by dextran and xylitol. *Journal of Heart and Lung Transplantation*: December 2004: 23(12): pp 1382-91.
- Saijan U, Keshavjee S, Forstner J:** Responses of well-differentiated airway epithelial cell cultures from healthy donors and patients with cystic fibrosis to Burkholderia cepacia infection. *Infection and Immunity*: July 2004: 72(7): pp 4188-4199.
- Shargall Y, de Perrot M, Keshavjee S, Darling G, Ginsberg R, Johnston M, Pierre A, Waddell TK:** 15 years single center experience with surgical resection of the superior vena cava for non-small cell lung cancer. *Lung Cancer*: September 2004: 45 (3): pp 357-63.
- Shargall Y, Pakhale S, Chamberlain D, Pierre A, Waddell T, Hutcheon M, Keshavjee S:** Bilateral lung transplantation for metastatic leiomyosarcoma. *Journal of Heart Lung Transplantation*: July 2004: 23(7): pp 912-5.
- Suga M, Keshavjee S, Liu M:** Instability of cytokines at body temperature. *Journal of Heart Lung Transplantation*: April 2005: 24: pp 504-505.
- Waddell TK, Shepherd FA:** Should aggressive surgery ever be part of the management of small cell lung cancer. *Aggressive Surgery for Lung Cancer* (Rusch VW, ed). WB Saunders Co., Elsevier Inc., Philadelphia: 2004:
- Zabner J, Scheetz, Abulkawy, Cassavant T, Huang J, Keshavjee S, McRay P:** The CFTR delta F508 mutation has minimal effect on the gene expression profile of differentiated human airway epithelia. *American Journal of Physiology*: June 2005:



## Invited Visits to Other Hospitals/Universities

**Darling GE:** General Thoracic Surgical Club, Naples, Florida, March 2005. Adjuvant chemo for lung cancer.

**Darling GE:** ACOSOG, San Antonio, Texas, January 2005. 1) Esophageal Workshop Summary. 2) A randomized trial of mediastinal lymph node sampling versus complete lymphadenectomy during pulmonary resection in the patient with N0 or N1 (less than hilar) non small cell carcinoma.

**Darling GE:** XIV Brazilian Congress of Thoracic Surgery, Goiania, Brazil, June 2005. 1) Infectious diseases. 2) Pleura. 3) Pleural Effusion. 4) Tumoral Markers x TNM.

**Darling GE:** American Association of Thoracic Surgery, San Francisco, California, April 2005. Neoadjuvant chemoradiotherapy for esophageal cancer.

**Darling GE:** Canadian Association of Thoracic Surgeons, Ottawa, Ontario, November 2004. Preoperative irinotecan and cisplatin with conformal radiotherapy plus surgery for esophageal cancer.

**Darling GE:** Canadian Cancer Society, Toronto, Ontario, March 2005. Role of surgery in esophageal cancer.

**de Perrot:** 6th International Congress on Lung Transplantation., Paris, France, September 2004. 1) Recipient T cell lymphocytes in ischemia-reperfusion injury. 2) Strategies to increase limited donor resources.

**de Perrot:** Colloque de Pathologie Thoracique, Universite de Lausanne, Lausanne, Switzerland, November 4, 2004. Progress in lung transplantation.

**Johnston MR:** Plenary Session, International Association for the Study of Lung Cancer, Vancouver, British Columbia, August 2004. Most Influential Papers in Thoracic Surgery.

**Keshavjee S:** Thoracic Society of Australia and New Zealand, Perth, Australia, March 2005. 1) Advances in Lung Transplantation; 2) Surgical Management of Lung Cancer.

**Keshavjee S:** Course Director, General Thoracic Surgery Symposium, American Association for Thoracic Surgery, San Francisco, California, April 10, 2005.

**Keshavjee S:** Program Chair, International Society for Heart & Lung Transplantation, Annual Meeting, Philadelphia, Pennsylvania, April 2005.

**Keshavjee S:** Japanese Association of Chest Surgery, 22nd Annual Meeting, Kyoto, Japan, June 2005. 1) Current Strategies in the Surgical management of Lung Cancer; 2) Lung Transplantation: State of the Art and Future Challenges; 3) The promise of Molecular Diagnostics in Transplantation.

**Keshavjee S:** 40th annual meeting of the Japan Society of Transplantation, Okayama, Japan, September 2004. 1) Genetic modification of organs for transplantation - a clinical reality? 2) Cadaveric lung transplantation - the Toronto experience. 3) Novel indicators for lung transplantation.

**Keshavjee S:** The Cystic Fibrosis Foundation 18th Annual North American Cystic Fibrosis Conference, St. Louis, Missouri, October 2004. Lung transplantation in CF: Update 2004.

**Keshavjee S:** Johns Hopkins University, Baltimore, Maryland, January 2005. Molecular diagnostics in lung transplantation.

**Keshavjee S:** The Alfred Hospital, Melbourne Australia, March 2005. Molecular Diagnostics in Lung Transplantation.

**McKneally MF:** Harvard Medical International, University of Lausanne, Lausanne, Switzerland, May 2005. "Ethics of Innovation".

**McKneally MF:** Society of Cardiovascular Anesthesiologists, Snowmass, Colorado, March 2005. Case Discussion: Jehovah's Witness and Heart Surgery and Difficult Cases: Team Ethics.

**Liu M:** The 3rd Pittsburgh International Lung Conference, Farmington, Pennsylvania, October 2004. ARDS/ALI.

**Liu M:** Society of Chinese Bioscientists in America 10th International Congress, Beijing, People's Republic of China, July 2004. Gene therapy in lung transplantation.

**Pierre AF:** North York General Hospital, Surgery Grand Rounds, North York, Ontario, October 2004. Assessment and management of complex esophageal reflux disorders.

**Pierre AF:** Trillium Gift of Life Network, Toronto, Ontario, September 2004. Chest xray interpretation for lung transplant.

**Waddell TK:** Ontario Respiratory Care Society, Toronto, Ontario, November 2004. Bronchial fenestration and bronchoscopic LVRS.

**Waddell TK:** Washington University, St. Louis, May 2005. Lung regeneration as an approach to chronic rejection.

## 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 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. *Waddell TK: Spiration Inc.* (\$524,440 2004 - 2005).

Development of a treatment protocol and small animal model for malignant mesothelioma. *Johnston MR, Feld R, Tsao MS: Canadian Conference of Asbestos Workers Fund* (\$39,000 2003 - 2004).

Early detection of malignant mesothelioma. *Johnston MR, Roberts H, Tsao M, Shepherd F: Canadian Asbestos Workers Union and other union groups* (\$250,000 2004 - 2005).

Endothelial glycosylation, monocyte adhesion, and delayed xenograft rejection. *Waddell TK: Canadian Cystic Fibrosis Foundation* (\$207,000 2003 - 2006).

Gene therapeutic strategies for transplant related lung injury. *Keshavjee S: CIHR - Canadian Institutes of Health Research* (\$523,432 2003 - 2008).

Health related quality of life in advanced lung disease and transplantation. *Singer L, Waddell TK, Granton J, Tullis E, Krahn M: Physician Services Incorporated Foundation* (\$154,000 2002 - 2004).

High risk seed grant - Regenerative medicine: The role of marrow stromal cells in prevention of chronic lung allograft rejection. *Waddell TK: Canadian Institutes of Health Research* (\$150,000 2004 - 2006).

Impact of endothelial cell apoptosis on lung function after reperfusion

of chronically obstructed pulmonary artery. *de Perrot M, Fadel E: Legs Poix, University Paris-Sud, France* (\$30,000 2004 - 2005)

L-selectin modulation of chemokine receptor expression and function: Mechanisms and significance. *Waddell TK: Canadian Institutes of Health Research* (\$303,000 2003 - 2005).

LARGO: Lung allograft rejection gene expression observational study. Multi-centre trial. *Keshavjee S: XDx Expression Diagnostics, Inc.* (\$200,000 2005 - 2006).



LUNAS: A randomized, double-blind, placebo-controlled study comparing Basiliximab (Simulect) plus standard triple immunosuppression to standard immunosuppression alone for the prevention of acute rejection and bronchiolitis obliterans syndrome in lung transplant patients. *Keshavjee S, Waddell TK, Chaparro C: Novartis* (\$100,000 2003 - 2005).

Mechanotransduction and ventilator-induced acute lung injury. *Liu M: Canadian Institutes of Health for Research, Operating Grant, MOP-13270* (\$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, Thomas K. Waddell: Princess Margaret Hospital OCRN Surgical Fellowship* (\$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).

Novel molecular prognostic markers and potential therapeutic targets in non small cell lung cancer. *Tsao, Ming Sound, 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).

PTX3 a novel mediator of acute lung injury. *Liu M, Bing Han B: Ontario Thoracic Surgery* (\$35,000 2004 - 2005).

Role of esophageal reflux in chronic rejection of the transplanted lung. *Pierre AF, Keshavjee S: Ontario Thoracic Society / Block Term Grant* (\$10,000 2003 - 2005).

Signal cross-talk in acute lung injury. *Liu M: Canadian Institutes of Health for Research, Operating Grant, MOP-42546* (\$655,000 2003 - 2008).

## **DIVISION OF UROLOGY**

**Dr. M. Beheshti - Lecturer**

**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**

**Alibhai SM, Krahn MD, Cohen MM, Fleshner NE, Tomlinson GA, Naglie G:** Is there age bias in the treatment of localized prostate carcinoma? *Cancer* 2004; 100: pp 72-81.

**Alibhai SM, Krahn MD, Fleshner NE, Cohen MM, Tomlinson GA, Naglie G:** The association between patient age and prostate cancer stage and grade at diagnosis. *British Journal of Urology* 2004; 94: pp 303-306.

**Andriole GL, Humphrey P, Ray P, et. al:** Effect of the dual 5 $\alpha$ -reductase inhibitor dutasteride on markers of tumor regression in prostate cancer. *Journal of Urology*: September 2004; 172 (3): pp 915-9.

**Bunting PS, Neuman J, Goel V, Fleshner N, Kopec J, Levers P, Warde P:** A reliable coding system to define screening prostate specific antigen tests was developed in a case control study. *Journal of Clinical Epidemiology* 2005; 58: pp 639-644.

**Chatterjee S, Nam R, Fleshner NE, Klotz L:** Permanent flank bulge is a consequence of flank incision for radical nephrectomy in one half of patients. *Urol Oncol* 2004; 22: pp 36-39.

**Evans CP, Fleshner N, Fitzpatrick JM, Zlotta AR:** An evidence-based approach to understanding the pharmacological class effect in the management of prostatic diseases. *British Journal of Urology* 2005; 95: pp 743-49.

**Elkelini M, Hassouna m:** The Canadian experience in sacral neuromodulation. *Urologic Clinics of North America*: February 2005; 32: pp 41-49.

**Finelli A, Gill IS, Desai MM, Moinzadeh A, Kaouk JH:** Laparoscopic extended pelvic lymphadenectomy for bladder cancer. *Journal of Urology*: November 2004; 172(5): pp 1809-12.

**Finelli A, Gill IS, Desai MM, Tan YH, Moinzadeh A, Singh D, Kaouk JH:** Laparoscopic heminephrectomy for tumor. *Urology*: March 2005; 65(3): pp 473-8.

**Finelli A, Gill IS:** Editorial comment. *Journal of Urology*: May 2005; 65(5): pp 897.

**Finelli A, Kaouk JH, Fergany A, Abreu SC, Novick AC, Gill IS:** Laparoscopic cytoreductive nephrectomy for metastatic renal cell carcinoma. *British Journal of Urology*: August 2004; 94(3): pp 291-4.

**Fleshner N, Bagnell PS, Klotz L, Venkateswaran V:** Dietary fat and prostate cancer. *Journal of Urology* 2004; 171: pp 19-24.

**Fleshner N:** Defining high-risk prostate cancer: current status. *Canadian Journal of Urology* 2005; 12: pp 94-96.

**Fleshner N, Hersey K, Chung D:** Differences between urologists in United States and Canada in approach to bladder cancer. *Urology* 2005; 65: pp 919-925.

**Fleshner N, Al-Azab R:** Prostate cancer: chemoprevention update 2005. *Canadian Journal of Urology* 2005; 12: pp 2.

**Fleshner N, Harvey M, Adomat H, Wood C, Eberding A, Hersey K, Guns E:** Evidence for contamination of herbal erectile dysfunction products with phosphodiesterase type 5 inhibitors. *Journal of Urology* 2005; 174: pp 636-641.

**Gill IS, Ramani AP, Spaliviero M, Xu M, Finelli A, Kaouk JH, Desai MM:** Improved hemostasis during laparoscopic partial nephrectomy using gelatin matrix thrombin sealant. *Urology*: March 2005; 65(3): pp 463-6.



- Gill IS, Ukimura O, Rubinstein M, Finelli A, Moinzadeh A, Singh D, Kaouk J, Desai MM:** Lateral pedicle control during laparoscopic radical prostatectomy: Refined technique. *Urology*: January 2005: 65(1): pp 23-7.
- Kopec JA, Goel V, Bunting PS, Neuman J, Sayre EC, Warde P, Levers P, Fleshner N:** Screening with prostate specific antigen and metastatic prostate cancer risk: a population based case-controlled study. *Journal of Urology* 2005: 174: pp 495-499.
- Lippman SM, Goodman PJ, Klein EA, Parnes HL, Thompson Jr., IM, Kristal AR, Santella RM, Probstfield JL, Moinpour CM, Albanes D, Taylor PR, Minasian LM, Hoque A, Thomas SM, Crowley JJ, Gaziano JM, Stanford JL, Cook ED, Fleshner NE, Lieber MM, Walther PJ, Khuri FR, Karp DD, Schwartz GG, Ford LG, Coltman Jr., CA:** Designing the selenium and Vitamin E cancer prevention trial (SELECT). *Journal of the National Cancer Institute* 2005: 97: pp 94-102.
- Moinzadeh A, Gill IS, Desai MM, Finelli A, Falcone T, Kaouk JH:** Laparoscopic radical cystectomy in the female. *Journal of Urology*: June 2005: 173(6): pp 1912-17.
- Nam RK, Toi A, Trachtenberg J, Jewett MA, Klotz L, Fleshner N, Bagnell PS, Sweet J, Sugar L, Narod SA:** Variation in patterns of practice in diagnosing screen-detected prostate cancer. *British Journal of Urology* 2004: 94: pp 1239-41.
- Ng L, Hersey K, Fleshner N:** Publication rate of abstracts presented at the annual meeting of the American Urological Association. *British Journal of Urology*: July 2004: 94: pp 79-81.
- Rabets JC, Kaouk JH, Fergany A, Finelli A, Gill IS, Novick AC:** Laparoscopic versus open cytoreductive nephrectomy for metastatic renal cell carcinoma. *Journal of Urology*: November 2004: 64(5): pp 930-4.
- Ramani AP, Desai MM, Steinberg AP, Ng CS, Abreu SC, Kaouk JH, Finelli A, Novick AC, Gill IS:** Complications of laparoscopic partial nephrectomy in 200 cases. *Journal of Urology*: January 2005: Jan 173(1): pp 42-7.
- Ritvo PG, Irvine MJ, Naglie G, Tomlinson GA, Bezzak A, Matthew AG, Trachtenberg J, Krahn MD:** Reliability and validity of the PORPUS, a combined psychometric and utility-based quality-of-life instrument for prostate cancer. *Journal of Clinical Epidemiology*: January 2005: 58 (2005): pp 466-474.
- Rubinstein M, Colombo JR, Finelli A, Gill IS:** Laparoscopic partial nephrectomy for cancer : Techniques and outcomes. *International Brazilian Journal of Urology*: March 2005: 31(2): pp 100-4.
- Saad F, Chi K, Fleshner N:** The role of bisphosphonates in the management of bone metastases in prostate cancer. *Canadian Journal of Urology* 2004: 11: pp 2376-82.
- Shemtov OM, Radomski SB, Crook J:** Success of Sildenafil for erectile dysfunction in men treated with brachytherapy or external beam radiation for prostate cancer. *Canadian Journal of Urology*: December 2004: 11: pp 2450-2455.
- Sotelo R, Mariano MB, Garcia-Segui A, Dubois R, Spaliviero M, Keklikian W, Novoa J, Yaime H, Finelli A:** Laparoscopic repair of vesicovaginal fistula. *Journal of Urology*: May 2005: May 173(5): pp 1615-18.
- Steinberg AP, Finelli A, Desai MM, Abreu SC, Ramani AP, Spaliviero M, Rybicki L, Kaouk JH, Novick AC, Gill IS:** Laparoscopic radical nephrectomy for large (>7cm; T2) renal tumor. *Journal of Urology*: December 2004: 172(6Pt1): pp 2172-6.
- Sufan RI, Jewett MAS, Ohh M:** The role of the von Hippel-Lindau (VHL) tumor suppressor protein and hypoxia in renal clear cell carcinoma. *American Journal of Physiology Renal Physiology*: July 2004: 287: pp F1-F6.
- Thompson IM, Albanes D, Basler JW, Crawford ED, Denis LJ, Djavan B, Fleshner N, Johnson-Pais TL, Klein EA, Kristal AR, Lucia MS, Parnes HL, Piazza GA, Platz EA, Pollock BH, Price DK, Reichardt JK, Tangen CM, Tolcher AW, McManm MC:** First international conference on chemoprevention of prostate cancer. Overview consensus statement. *The Journal of Urology* 2004: 171: pp 3-4.
- Venkateswaran V, Fleshner NE, Klotz LH:** Synergistic effect of vitamin E and selenium in human prostate cancer cell lines. *Prostate cancer & Prostatic Diseases* 2004: 7: pp 54-56.
- Venkateswaran V, Fleshner NE, Sugar LM, Klotz LH:** Antioxidants block prostate cancer in lady transgenic mice. *Cancer Research* 2004: 64: pp 5891-6.

## Invited Visits to Other Hospitals/Universities

**Finelli A:** Instituto Medico La Floresta, Caracas, Venezuela, November 2004. Laparoscopic partial nephrectomy: Technical nuances. Live laparoscopic partial nephrectomy.

**Finelli A:** Columbian de Urologia, Cartagena, Columbia, August 2004. Laparoscopic radical prostatectomy. Performed live laparoscopic radical prostatectomy.

**Finelli A:** 1st Ege University Laparoscopic Urology Course, Izmir, Turkey, April 2005. Laparoscopic radical prostatectomy. Visiting professor. Performed live laparoscopic radical prostatectomy.

**Fleshner NE:** Global Uro-oncology Forum, Wakiki, Hawaii, September 2004. High risk prostate cancer.

**Fleshner NE:** GlaxcoSmithKline Global Uro-oncology Think Tank, Barcelona, Spain, November 2004. New methods for prostate cancer detection.

**Fleshner NE:** Canadian Prostate Cancer Network, Calgary, Alberta, August 2004. Role of diet in prostate cancer prevention.

**Hassouna MM:** SUFU/ISPIN Annual Meeting Feb 24-27, 2005, Orlando, Florida, February 2005. Moderator Session in combined SUFU and ISPIN Annual meeting.

**Matthew AG:** York University, Toronto, Ontario, February 2005. Health Psychology in a hospital oncology clinic: Psychosocial approaches to diagnosis and management across the disease trajectory.

**Matthew AG:** The Badminton and Racquet Club, Toronto, Ontario, June 2005. New concepts in prostate cancer prevention and prostate health.

**Matthew AG:** University of Western Ontario, London, Ontario, May 2005. Outcome measures in downtown private psychology practice.

**Matthew AG:** Kiwanis International, Etobicoke, Ontario, September 2004. Prevention and treatment for prostate cancer.

## Research and Investigations

*Senior Investigator's Name Appears in Italics*

A global phase IV, double-blind, placebo-controlled, randomized trial to evaluate the effectiveness of detrusitol'ae SR (tolterodine tartrate) 4mg on patient's perception of bladder condition (PPBC). *Radomski S, Pfizer Canada* (\$24,000 2004 - 2005).

A qualitative study of the acceptability of reflex HPV testing as a cervical screening option. *Ritvo PG, Cotterchio M, Brown L, Matthew AG, Mai V, Howlett R, Rosen BP, Murphy KJ: Cancer Care Ontario* (\$10,000 2003 - 2004).

A qualitative study of the preferences of women for cervical screening options. *Ritvo PG, Cotterchio M, Brown L, Matthew AG, Mai V, Howlett R, Rosen BP, Murphy KJ: Cancer Care Ontario* (\$10,000 2003 - 2004).

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)

Cognitive restructuring and support to children and families in a narrative format: the adventures of Oliver. *Ritvo PG, Brown L, Barrera M, McDermid A, Shaw BF, Irvine MJ, Miller S, Matthew AG: Hospital for Sick Children Foundation* (\$66,622 2000 - 2004).

Development and evaluation of Internet training courses in cancer patients. *Eysenbach G, Jewett MAS, Trachtenberg JT, Gospodarowicz MR, Catton P, Jadad A: The Change Foundation* (\$200,000 2002 - 2004).

Development of novel minimally invasive surgical techniques. *Trachtenberg J: Princess Margaret Hospital Foundation* (\$2,500,000 2003 - 2008).

Dietary heterocyclic amines, polymorphisms in metabolism genes and risk of prostate cancer. *Birkett N, Fleshner N, Malone S, Morash C: DOD (CDMRP)* (\$250,000 2004 - 2008)

Genetic immunotherapy of cancer. *Alexander Keith Stewart, Gaudie J, Graham FL, Hitt MM, Trachtenberg J: CIHR* (\$843,500 2001 - 2005).

Identification of preoperative prognostic factors for small RCC. *Rendon R, Nassar A, Jewett MAS, Klotz LH: Capital District Health Authority Research Foundation* (\$100,000 2003 - 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).

Novel minimally invasive surgery for GU tumours. *Sherar MD, Trachtenberg J, Wilson BC: Ontario Consortium Image Guided Therapy & Surgery* (\$1,000,000 2003 - 2004).

Photodynamic therapy - basic science studies. *Zheng H, Hetzel FW, Chen Q, Trachtenberg J, Wilson BC: National Institutes of Health* (\$6,077,500 2004 - 2009).

Population-based Estimates of Cost and Quality of Life in Prostate Cancer Survivors. *Krahn M, Holowaty E, Naglie I, Irvine MJ et al: CIHR* (\$106,196 2002 - 2007).

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. *Magdy M. Hassouna, Sidney Radomski: Glaxo-Smith-Kline Pharmaceutical* (\$15,000 2004 - 2008).

Self-efficacy in response to dietary counseling related to prevention of the onset and recurrence of prostate cancer. *Ritvo PG, Matthew AG, Irvine J, Willms D, Katz J, Shaw B, Trachtenberg J, Jewett M, Fleshner N: Princess Margaret Hospital Foundation* (\$10,000 2004).

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 SELECT Trial. *Trachtenberg J, Jewett M, Tshilias J: National Cancer Institute (USA), SWOG* (\$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)

## Honours Received

**Jewett MAS:** University of Toronto - IMS Summer Research Student Scholarship for Mr. Aresh Gharaje, for project "The Natural History of Renal Cell Carcinoma", July 2004.

## **DIVISION OF VASCULAR SURGERY**

**Dr. K.W. Johnston - Professor**

**Dr. T.F. Lindsay - Associate Professor**

**Dr. B.B. Rubin - Associate Professor (Division Head)**

## **Publications**

**Al-Omran M, Lindsay TF, Verma S, Sternbach Y:** Clinical decision making for endovascular repair of abdominal aortic aneurysm. *Circulation*: January 2005: 110: pp 517-523.

**Baerlocher M, Rajan D, Ing D, Rubin BB:** Primary stenting of bilateral radiation induced external iliac stenoses. *Journal of Vascular Surgery*: November 2004: 40(5): pp 1028-30.

**Butany J, Mahendran M, Lindsay TF:** Postimplantation changes in composite pericardium - vein graft. *Cardiovascular Research*: July 2004: 13 (4): pp 237-9.

**Gullane PG, Lindsay TF:** Carotid body tumors. In: *operative techniques in general surgery* (Ashok R. Shaha, ed). Elsevier, New York: 2004: pp 125.

**Harkin DW, Rubin B, Lindsay TF:** Selective induced nitric oxide inhibition attenuates neutrophil mediated Acute Lung Injury in a Model of Ruptured Abdominal Aortic Aneurysm. *American Association for Vascular Surgery*: December 2004: 1201S: pp 230-41.

**Lindsay TF:** Ruptured abdominal aortic aneurysms. In: *Atlas of vascular surgery* (Rutherford - 6th Edition, ed): 2005: pp Chap. #102.

**Lindsay TF:** Canadian society for vascular surgery statement on endovascular aneurysm repair. *Canadian Medical Association Journal*: March 2005: 172(7): pp 867-8.

**Lindsay TF, Al-Omran M:** Should all patients with Peripheral Arterial Disease be treated with an angiotensin converting enzyme inhibitor? *Canadian Journal of Cardiology*: February 2005: 21 (2): pp 189-193.

**Mahinpey N, Leask R, Ojha M, Johnston KW, Trass O:** Experimental study on local mass transfer in a simplified bifurcation model. *Annals of Biomedical Engineering*: November 2004: 32: pp 1504-18.

**Rubin BB, Downey GP, Degousee N, Lindsay TF:** Cytosolic phospholipase A2-a is necessary for platelet-activating factor biosynthesis, efficient neutrophil-mediated bacterial killing, and the innate immune response to pulmonary infection. *Journal of Biological Chemistry*: March 2005: 280 (9): pp 7519-7529.

**Sniderman K., Rubin B., Rajan D:** Retrieval of the bard recovery filter from the superior vena cava. *Interventional Radiology*: August 2004: 15(10): pp 1169-71.

**Steinman AH, Lui EYL, Johnston KW, Cobbold RSC:** Sample volume shape for pulsed flow velocity estimation using a linear array. *\*Ultrasound in Medicine and Biology*: October 2004: 30: pp 1409-18.

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

**Johnston KW:** Atlantic Vascular society (Invited Lecturer), St. Johns, Newfoundland, August 2004. Does industry influence published clinical results?

**Johnston KW:** Winnipeg Vascular Symposium, Winnipeg, Manitoba, April 2005. The Diabetic Foot.

**Johnston KW:** McGill University, Montreal, Quebec, March 2005. The influence of industry on clinical publications: An ex-editor's perspective.

**Lindsay TF:** Canadian Society for Vascular Surgery, Quebec City, Quebec, October 2004. 1) Initial Experience with Endovascular Repair of Thoracoabdominal Aneurysms. 2) Oral Complement Antagonism Reduces the Pulmonary and Interstitial Injury in a Model of Ruptured Abdominal Aortic Aneurysm. 3) The Role of Mast Cells in Cardiac Contractile Dysfunction Following Hemorrhagic Shock and Resuscitation.



**Lindsay TF:** Gulf Coast Vascular Society, New Orleans, Louisiana, March 2005. Ruptured abdominal aortic aneurysm: Opportunities for improvement.

**Lindsay TF:** Vascular Imaging Toronto, Toronto, Ontario, April 2005. Planning arterial procedures: The role of duplex scanning.

**Lindsay TF:** Pacific Northwest Vascular Society, Tacoma, Washington, November 2004. 1) Ruptured Abdominal Aortic Aneurysm: Opportunities for Improvement. 2) SAVR: An Evidence Based for Risk Reduction Program for Vascular Patients.

## **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 & Stroke Foundation of Ontario (\$154,000 2005 - 2007).*

Molecular regulation of myocardial cyclooxygenase-2 expression and prostaglandin biosynthesis in neonatal rat cardiac myocytes (this grant was declined as I was accepted by the CIHR for a 5 year grant award for the same project). *Rubin B: Heart & Stroke Foundation of Canada (\$190,000 2002 - 2005).*

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).*

Peri operative ischemic evaluation study. *Yang H, Rubin B et al: CIHR (\$1,700,000 2001 - 2004).*

Role of c-Jun N-terminal kinases in neutrophil activation and neutrophil mediated skeletal muscle ischemia reperfusion injury. *Rubin B: Physicians Services Incorporated Foundation (\$158,000 2003 - 2005).*

Ruptured abdominal aortic aneurysm: Molecular mechanisms to clinical studies. *Lindsay TF: The Physicians' Services Incorporated (\$162,000 2004 - 2006).*

**Michael J. Wiley** - Chair



This past year, members of the Division provided one or more courses in Anatomy to over 1600 students from 11 programs across six Faculties of the University. We were successful in obtaining new funding to help in developing the laboratory components in several of these courses. Awards obtained from the Academic Incentives Fund in collaboration with the Faculties of Dentistry and Physical and Health Education, will allow the Division to enrich the gross anatomy laboratories offered to students in these programs and to create more opportunities for graduate students to gain teaching experience. An award from the Provost's Information Technology Development Fund with matching funds from the Faculty of Medicine, will underwrite the development of a 'virtual microscope' to be used in teaching Histology to the medical class. Utilizing compression and streaming software, high resolution annotated scans of microscope sections, can be delivered over the internet, allowing a student's computer to emulate a microscope. This approach will eliminate the classic histology 'microscope lab' from the medical timetable and will provide for a more student-centred approach to learning Histology. Using the highest quality

images, the 'virtual microscope' lab units will offer students the flexibility to schedule their own time for laboratory study, together with self-assessment tests, and unlimited opportunity for review.

## Honours and Awards

Ian Taylor received the E. Mary Hollington Award for teaching with distinction in the undergraduate preclinical curriculum and Anne Agur received her second W.T. Aikens Faculty Teaching Award for individual teaching performance. The Division received a special presentation from the Sunnybrook-Osler Centre for Prehospital Care for its outstanding contribution and commitment to paramedic education. Cindi Morshead has been appointed to the Editorial Board of *Current Stem Cell Research and Therapy* and Anne Agur has been appointed an Associate Editor of *Clinical Anatomy*. The interactive website developed by Pat Stewart entitled *Functional Neuroanatomy* was accepted "with distinction" by the Health Education Assets Library (HEAL). HEAL is a repository of peer reviewed digital educational media in medical science and is a part of the USA National Digital Science Library.

## Personnel

Mina Kim successfully defended her Master's thesis under the supervision of Cindi Morshead and two new postdoctoral fellows, Drs. Anna Erlandson and Tasneem Zahir have recently joined Cindi's lab.

Mike Wiley has been re-appointed for a second term as Division Chair.

Bernie Liebgott has officially retired from the University as of July 1, 2005 after 40 years as a Professor of Anatomy. He has graciously agreed to return post-retirement to help with our undergraduate teaching. There is a search currently underway for a new recruit to fill the tenure stream position opened by Bernie's retirement.

## **DIVISION OF ANATOMY**

**Dr. A. Agur - Associate Professor**

**Dr. B. Ballyk - Lecturer**

**Dr. B. Liebgott - Professor**

**Dr. C.M. Morshead - Assistant Professor**

**Dr. J.A. Saint-Cyr - Professor**

**Dr. P.A. Stewart - Professor**

**Dr. I.M. Taylor - Professor**

**Dr. M.J. Wiley - Professor (Division Head)**

## **Publications**

**Andrade-Souza Y, Hamani C, Hoque T, Saint-Cyr J A, Lozano A:** Comparison of three methods of targeting the subthalamic nucleus for chronic stimulation in parkinson's disease. *Neurosurgery*: April 2005: 56 2 Suppl: pp 360-8.

**Andrade-Souza Y, Schwalb J, Hamani C, Hoque T, J. Saint-Cyr JA, Lozano A:** Comparison of 2D-MRI and three-planner reconstruction methods for targeting the subthalamic nucleus in parkinson disease. *Neurosurgery*: April 2005: 63(4): pp 357-62.

**Eltahawy H, Feinstein A, Khan F, Saint-Cyr JA, Lang A, Lozano A:** Bilateral globus pallidus Internus deep brain stimulation in tardive dyskinesia: Case Report. With video. *Movement Disorders*: August 2004: 19(8): pp 969-72.

**Eltahawy H, Saint-Cyr JA, Poon Y, Moro E, Lang A, Lozano A:** Pallidal deep brain stimulation in cervical dystonia: clinical outcome in four cases. *Canadian Journal of Neurological Sciences*: August 2004: 31(3): pp 328-32.

**Hamani C, Richter E, Andrade-Souza Y, Hutchison W, Saint-Cyr J A, Lozano J:** Correspondence of microelectrode mapping with MRI for subthalamic nucleus procedures. *Surgical Neurology*: March 2005: 63(3): pp 249-53.

**Hohol M, Stewart P, Jenkinson J:** The Neurologic Exam. Health Education Assets Library: May 2004: Publication ID=38370: [www/healcentral.org](http://www.healcentral.org).

**Jemmett R, MacDonald D, Agur A:** Anatomical relationships between selected segmental muscles of the lumbar spine in the context of multi-planar segmental motion: A preliminary investigation. *Manual Therapy*: November 2004: 9 (4) pp 203-210.

**Kasapinovic S, MacCallum G, Wiley M, Wells P:** The peroxynitrite pathway in development: Phenytoin and benzo pyrene embryopathies in inducible nitric oxide synthase knockout mice. *Free Radical Biology and Medicine*: December 2004: 37 (11) pp 1703-1711.

**Kleiner-Fisman G, Fisman D, Saint-Cyr JA, Sime E, Lozano, A, Lang:** Bilateral STN DBS for PD following successful pallidotomy. *Movement Disorders*: October 2004: 19(10): pp 1209-14.

**Kleiner-Fisman G, Fisman D, Zamir O, Dostrovsky J, Sime E, Saint-Cyr JA, Lozano A, Lang:** Subthalamic nucleus DBS for PD after successful pallidotomy - clinical and electrophysiological observations. *Movement Disorders*: October 2004: 19(10): pp 1209-14.

**Kovler M, Lundon K, McKee N, Agur A:** The human first carpometacarpal joint: Osteoarthritic degeneration and 3-dimensional modeling. *Journal of Hand Therapy*: October-December 2004: 17(4) pp 393-400.

**Morshead CM:** Neural stem cells in vivo: Attempting to solve the identity crisis. *Developmental Neuroscience*: March-August 2004: 26 (2-4) pp 93-100.

**Paradiso G, Cunic D, Saint-Cyr J, Hoque T, Lang A:** Involvement of human thalamus in the preparation of self-paced movement. *Brain*: December 2004: 127 Pt 12: pp 2717-2731.

**Saint-Cyr J:** Basal ganglia: functional perspectives and behavioral domains. In: *Behavioral Neurology of Movement Disorders* (W. J. Weiner and A.E. Lang, ed). Raven Press, New York: 2005: pp 1-16.

**Saint-Cyr J:** La stimulation du STN peut être toxique pour les fonctions cognitive ou psychologiques chez les patients parkinsoniens. *Mouvements*: July 2004: 12: pp 6-12.

**Stewart P, Agur A, Liebgott B, Wiley M, Mikulis D:** Functional Neuroanatomy. Health Education Assets Library: May 2005: Publication ID=18: [www.healcentral.org](http://www.healcentral.org).

**Voon V, Moro E, Saint-Cyr J, Lozano A, Lang A:** Psychiatric symptoms following surgery for Parkinson's disease with emphasis on subthalamic stimulation. In: *Behavioral Neurology of Movement Disorders* (W. J. Weiner and A.E. Lang, ed). Raven Press, New York: 2005: pp 130-147.

## Invited Visits to Other Hospitals/Universities

**Morshead CM:** University Health Network - Rehabilitation Science Research Rounds, Toronto, Ontario, January 2005. Adult neural stem cells and their role in functional recovery following stroke.

**Morshead CM:** International Symposium - Adult neurogenesis in normal and pathological conditions, Okazaki, Japan, November 2004. Adult neural stem cells and their role in stroke recovery.

**Morshead CM:** Henry Ford Health Centre, Detroit, Michigan, December 2004. Identifying neural stem cells and their role in stroke recovery.

**Morshead CM:** UTERP Fellow Rounds, Toronto, Ontario, March 2005. Identifying neural stem cells and their role in stroke recovery.

**Morshead CM:** Neuroscience Rounds, Toronto, Ontario, April 2005. Neural stem cells and their role in stroke recovery.

**Morshead CM:** Krembil Neuroscience Centre Spinal Program, Toronto, Ontario, September 2004. Repairing the brain from within: utilizing adult neural stem and progenitor cells to promote functional recovery.

**Morshead CM:** Sunderland Society Meeting, Toronto, Ontario, September 2004. Stem cell strategies for brain repair.

**Morshead CM:** Stem Cell Network, Montreal, Quebec, November 2004. Stem cells to treat stroke.

**Saint-Cyr JA:** Cognitive and behavioural sequelae of deep brain stimulation of the subthalamic nucleus. Mental Dysfunctions in Parkinson's Disease. Presentation, Salzburg, Austria, October 2004. .

**Saint-Cyr JA:** Deep brain stimulation for PD. Cells, genes and machines: What's best for treating Parkinson's disease. 38th Annual Winter Conference on Brain Research., Breckenridge, Colorado, January 2005.

**Saint-Cyr JA:** Deep brain stimulation: A) Clinical aspects of deep brain stimulation. Conference on Translational Neuroscience. University. B) Clinical applications and neuroanatomical correlations. University of Kentucky, Department of Anatomy and Neurobiology, Lexington, Kentucky, April 2005.

**Saint-Cyr JA:** Disconnecting the basal ganglia: Physiological mechanisms and neuropsychological consequences of deep brain stimulation in parkinson's disease. Rotman Research Institute, Toronto, ON. April 2005.

**Saint-Cyr JA:** A) Dopamine, learning and gambling in PD: a clinical perspective B) Basal ganglia, dopamine and learning: Integrating computational and clinical perspectives. Hebrew University and NIH-NIDA, Jerusalem, Israel, June 2005

**Saint-Cyr JA:** Electrode location, anatomical correlates and clinical outcome of STN DBS. University of Minnesota, Department of Neurology, Minnesota, Minneapolis, October 2004.

**Stewart P:** The tablet PC as a teaching tool. Slice of Life/AAMC Conference, Portland Oregon, June 2005.

## Research And Investigations

*Senior Investigator's Name Appears in Italics*

Adult stem cells to treat stroke. *Miller F, Weiss S, Morshead CM, Bhatia M, Slack R: Stem Cell Network - NCE (\$604,600 2003 - 2005).*

Approaches to self-repair: Characterizing the endogenous responses of neural stem cells following brain injury. *Morshead C: Premier's research excellence award (PREA) (\$100,000 2004 - 2009).*

Brain serotonin transporter in ecstasy and MDA users. *Kish SJ, Guttmann M, Houle, S, Warsh, J, Wilkins D, Mundo E, Wilson A, Saint-Cyr J Meyer J: NIH - NIDA (\$911,250 2005 - 2008).*

Development and evaluation of virtual microscopy laboratories. *Wiley M: The Provost's Information Technology Development Fund, University of Toronto (\$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 University of Toronto, (\$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 University of Toronto (\$10,000 2003-2005).*

Do serotonin transporter gene polymorphisms influence serotonin transporter expression in human brain? *Kish SJ, Guttman M, Houle S, Saint-Cyr JA: CIHR (\$332,883 2001 - 2004).*

Engineering Healing for Spinal Cord Injury Repair. *Shoichet M: Natural Sciences and Engineering Research Council of Canada (NSERC)* (\$650,000 2004 - 2007).

EPO and neural stem cells. *Morshead C: Ortho Biotech* (\$30,000 2004 - 2005).

Examining the function and regulation of adult mammalian neural stem cells. *Morshead C: Canadian Institutes of Health Research (CIHR)* (\$99,399 2005 - 2006).

Examining the regulation and modification of neural stem cell behaviour. *Morshead, CM: Connaught Award - University of Toronto* (\$10,000 2003 - 2005).

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, Switzerland* (\$68,000 2004-2006).

Long term imaging and cell tracking for stem cell lineage analysis. *Morshead CM, Jervis E: Stem Cell Network - NCE* (\$473,000 2003 - 2005).

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 - New emerging teams grant (CIHR)* (\$1,500,000 2004 - 2007).

Regulating adult neural stem cells using in vivo and in vitro manipulation. *Morshead C: Canadian Institutes of Health Research (CIHR)* (\$350,000 2005 - 2008).

Start up funds. *Morshead C: University of Toronto* (\$50,000 2003 - 2004).

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).

Teaching technology integration fund. *Agur A, Cusimano M: McGraw-Hill Ryerson*, (\$1,000 2003-2004).

The identification and regulation of mammalian neural stem cells. *Morshead C: Canadian Institutes of Health Research (CIHR)* (\$149,844 2002 - 2004).

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 Grant - University of Toronto* (\$20,000 2003 - 2005).

## Honours and Awards

**Agur A:** was awarded the W.T. Aikens Faculty Teaching Award for individual teaching performance. June 2005. Anne also received the Recognition Award for Excellence in Teaching and Mentoring from the Department of Physical Therapy. June 2005.

**Taylor I:** was awarded the E. Mary Hollington Award for teaching with distinction in the undergraduate preclinical curriculum. June 2005.

**The Anatomy Division** received an Award of Special Recognition from the Sunnybrook-Osler Centre for Prehospital Care for outstanding contribution and commitment to paramedic education. June 2005.

**Dr. S.J. Hamstra** - Associate Professor

**Dr. A. Dubrowski** - Assistant Professor

**Dr. G. Regehr** - Professor

## Publications

**Bogo M, Regehr G, Power R, Hughes J, Woodford M, Regehr G:** Towards new approaches for evaluating student field performance: Tapping the implicit criteria used by experienced field instructors. *Journal of Social Work Education* 2004 Oct; 40(3): pp 417-425.

**Dath D, Regehr G, Birch D, Schlachta C, Poulin E, Mamazza J, Reznick R, MacRae HM:** Toward reliable operative assessment - The reliability and feasibility of videotaped assessment of laparoscopic technical skills. *Surgical Endoscopy*. 2004 Dec; 18(12): pp 1800-1804.

**Elman D, Hooks R, Tabak D, Regehr G, Freeman R:** The effectiveness of unannounced standardized patients in the clinical setting as a teaching intervention. *Medical Education* 2004 Sep; 38(9): pp 969-973.

**Ginsburg S, Regehr G, Lingard L:** Basing the evaluation of professionalism on observable behaviors: A cautionary tale. *Academic Medicine* 2004 Oct; 79(10): pp S1-S4.

**Grober ED, Hamstra SJ, Wanzel KR, Reznick RK, Matsumoto ED, Sidhu RS, Jarvi KA:** The educational impact of bench model fidelity on the acquisition of technical skill: the use of clinically relevant outcome measures. *Annals of Surgery*: August 2004; 240(2): pp 374-381.

**Grober, ED, Hamstra, SJ, Wanzel, KR, Reznick, RK, Matsumoto, ED, Sidhu, RS, Jarvi, KA:** Laboratory-based training in urologic microsurgery with bench model simulators: A randomized controlled trial evaluating the durability of technical skill. *Journal of Urology*: July 2004; 172: pp 378-381.

**Kohls-Gatzoulis J, Hutchison C, Regehr G:** Teaching cognitive skills improves learning in surgical skills courses. *Canadian Journal of Surgery* 2004 Aug; 47(4): pp 277-283.

**Lavine E, Regehr G, Ginsburg S:** The role of attribution to clerk factors and contextual factors in supervisors' perceptions of clerks' behaviors. *Teaching and Learning in Medicine* 2004 Oct; 16(4): pp 317-322. C

**Lingard L, Regehr G, Reznick R, Grober E, Espin S, Whyte S, Orser B, Doran D, Baker R:** Communication failures in the operating room: An observational classification of recurrent types and effects. *Quality and Safety in Health Care* 2004 Oct; 13(5): pp 330-334.

**MacRae HM, Regehr G, McKenzie M, Henteleff H, Taylor M, Barkun J, Fitzgerald W, Hill A, Richard C, Weber, McLeod LS:** Teaching practicing surgeons critical appraisal skills with an internet-based journal club. *Journal of Surgery* 2004 Sep; 136(3): pp 641-646.

**Rampado ME, Tjaderhane L, Friedman S, Hamstra SJ:** The benefit of the operating microscope for access cavity preparation by undergraduate students. *Journal of Endodontics*: December 2004; 30(12): pp 863-867.

**Regehr G:** Report on the AAMC:GEA Research in Medical Education (RIME) 2003 Conference. *Medical Education* 2004 Jul; 38(7): pp 791-792.

**Regehr G:** Self-reflection on the quality of decisions in health care. *Medical Education* 2004 Oct; 38(10): pp 1024-1027.

**Regehr G:** Trends in medical education research. *Academic Medicine* 2004 Oct; 79(10): pp 939-947.

## Invited Visits to Other Hospitals/Universities

**Regehr G:** Southern Illinois University School of Medicine, Education Grand Rounds, Springfield, Illinois, Sep 2004. "Kids these days": Promoting and exploiting adult learning in medical students.

**Regehr G:** Association of American Medical Colleges/Academic Medicine Joint Session on Institutional Frameworks for Medical Education Research, Boston, Massachusetts, Nov 2004. The Wilson Centre: Advancing health care education and practice through research.



## 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).

Behavioral Performance in Anesthesia Crisis Resource Management with Repeated Exposure to High Fidelity Patient Simulation. *Yee B*, Naik VN, Joo HS, Savoldelli GL, Chung DY, Hamstra SJ: *Canadian Anesthesiologists' Society Research Award*, (\$30,000 2004 - 2005).

Effect of sleep deprivation on resident surgeon psychomotor skills. *Woodrow SI*, Murray BJ, Bernstein M, Dubrowski A, Reznick RK, Hamstra SJ: *Physicians' Services Incorporated Foundation* (\$108,000 2004 - 2005).

Fellowship: Sarah Woodrow - The effects of sleep deprivation on resident surgeon psychomotor performance. *Hamstra SJ*, Woodrow SI: *Royal College of Physicians and Surgeons of Canada* (\$45,000 2004 - 2005).

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).

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 evaluation of patient simulator performance as an adjunct to the oral exam for senior anesthesia residents. *Savoldelli GL*, Naik, VN, Yee B, Joo H, Houston P, Hamstra SJ: *Physicians' Services Incorporated Foundation* (\$25,000 2004 - 2005).

Towards a new approach for evaluating student field performance. *Bogo M*, Power R, Regehr C, Regehr G: *Social Sciences and Humanities Research Council of Canada*. (\$99,695 2002 - 2005).

Translating theory into practice: Towards an authentic assessment of professional behaviour and reasoning. *Ginsburg S.*, Regehr G, Lingard L: *National Board of Medical Examiners*. (\$111,689 2003 - 2005).

**Dr. P.A. Arnold - Assistant Professor (University Health Network)**

**Dr. J.C. Fallis - Assistant Professor (Hospital for Sick Children)**

**Dr. L. Fulton - Lecturer (Sunnybrook & Women's College HSC)**

**Dr. B. McLellan - Associate Professor (Sunnybrook & Women's College HSC)**

**Dr. S. Reicheld - Instructor (University Health Network)**

**Dr. D. Saslove - Instructor (St. Michael's Hospital)**

Dr. A.J. Baker - Assistant Professor (Anaesthesia)

Dr. B.V. Bapat - Associate Professor (Lab Med & Pathobiology)

Dr. A. Campbell - Assistant Professor (Medicine)

Dr. J. Carson - Assistant Professor (Family and Community Medicine)

Dr. A. Daar - Professor (Public Health Sciences)

Dr. A. Damyanovich - Assistant Professor (Medical Imaging)

Dr. J.E. Davies - Associate Professor (Dentistry)

Dr. A.M. Davis - Assistant Professor (Physical Therapy)

Dr. W.A. Demajo - Assistant Professor (Anaesthesia)

Dr. D. Depetrillo - Professor (Department of Obstetrics and Gynaecology)

Dr. F. DiCosmo - Associate Professor (Botany)

Dr. R.J. Eby - Lecturer (Medicine)

Dr. G.R. Fernie – Professor (Biomedical Engineering)

Dr. V.L. Fornasier - Professor (Laboratory and Pathobiology)

Dr. A. Fox - Professor (Department of Medical Imaging)

Dr. R. Gilbert - Associate Professor (Otolaryngology)

Dr. M. Greenberg - Associate Professor (Paediatrics)

Dr. M.D. Grynbas - Associate Professor (Laboratory Medicine and Pathobiology)

Dr. P.J. Gullane - Professor (Otolaryngology)

Dr. B. Harvey - Assistant Professor (Public Health Sciences)

Dr. J. Irish - Associate Professor (Department of Otolaryngology)

Dr. J. Irvine - Associate Professor (Psychiatry)

Dr. G. Jackowski - Assistant Professor (Laboratory Medicine and Pathobiology)

Dr. M.G. Johnston - Professor (Laboratory Medicine and Pathobiology)

Dr. W. Kucharczyk - Professor (Medical Imaging)

Dr. G.A. Levy - 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 - Associate 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. B. Steinhart - Instructor (Medicine)

Dr. D. Stewart - Professor (Psychiatry)

Dr. K.G. terBrugge - Professor (Medical Imaging)

Dr. Q. Wan - Assistant Professor (Physiology)

Dr. I. Weller – Assistant Professor (Public Health Services)

Dr. R. Willinsky - Associate Professor (Medical Imaging)

Dr. G.J. Wilson - Professor (Laboratory Medicine and Pathobiology)

Dr. T.W. Wu - Professor (Laboratory Medicine and Pathobiology)