

THE **surgical** spotlight



ON ALUMNI, FACULTY, RESIDENTS & FRIENDS

OF THE DEPARTMENT OF SURGERY SUMMER 2004

BUILDING NEW OPERATING ROOMS FROM THE GROUND UP



New Operating Room

When presented with an opportunity to design brand new operating rooms rather than the “retrofitting” which most hospitals in Ontario have implemented in recent years, we were challenged and intrigued. The transformation of the Toronto General and Western sites, facilitated by the floating of a major bond issue in the late 1990’s, permitted the development of the TGH “New Clinical Services Building,” replacing the Bell Wing at the corner of University Avenue and Gerrard

Street. Our surgeons had been operating in suites constructed in the 1950’s; these met our needs until 1990, when the explosion of technology revolutionized the field. Subsequently, as every surgeon knows, technological advancement has been exponential, paralleling that of the computer industry. We constantly worry about expenditures on capital equipment that may well be outdated within 18-24 months! With a potential opening

continued on page 5

i n s i d e

BUILDING NEW OPERATING ROOMS FROM THE GROUND UP	CONTINUED ON 5
A NEW STRATEGIC PLAN FOR THE DEPARTMENT: THINK BIG AND THINK BOLD	8
GALLIE DAY 2004	9
2004 ROBERT STONE LECTURE	13
CHALLENGING TRADITIONAL THINKING ABOUT STEM CELLS	14
ORI ROTSTEIN APPOINTED SURGEON-IN-CHIEF OF ST. MICHAEL'S HOSPITAL	15
NEW STAFF	15
U OF T CUTS FOR CANCER EVENT RAISES HAIR AND \$17,800	16
ALUMNI PROFILE	16

Being There

Our recent departmental retreats have focused on the importance of postgraduate education in surgery. Many themes regarding the future directions of surgical education have emerged. In this article, I would like to focus on four fundamental tenets that I believe will characterize surgical education for the next decade: Being there, being there over and over again, investment in IT and studying the changes.



Richard Reznick

Being there

First, you have to be there. Learning is a matter of doing. And one needs to do what one is going to do in the future, to centre learning around eventual expertise. This has a myriad of educational ramifications for surgeons, and let me be provocative. If one of our jobs is to teach the surgical craft, our young trainees need to be doing the surgical craft, right from the start, and in the context of their eventual practice. Observation of others doing is highly overrated, particular for novice learners. Nine years ago, we compared learning through no observation, learning through one observation of an expert, and learning through watching many and different experts. The results were clear, one observation helped to set the framework; repeated observations were a waste of time. How often have you said to a trainee, let me show it to you my way, before you are prepared to let them operate. The trouble is, “my way” often translates to watching 34 examples of how to fix a hernia!

Being there over and over again

Well, if you have to be there, you also have to be there over and over again. Learning is context bound, and the notion that we teach surgical principles, rather than provide examples for pattern recognition, has been at the heart of the cognitive science debate for

decades. Most psychologists would now agree, however, that there is no such a thing as a surgical principle. Lest the reader has a catatonic fit at this statement, let me explain. For most surgical learners, the lessons they acquire are not steeped in a fundamental understanding of a profound and overarching surgical principle that they then can export to novel situations they encounter. Expertise for the surgeon, the psychiatrist, the chess master and the violinist, is gained from being in the same situation over and over and over again. While there may be some potential for knowledge transfer for sophisticated learners, for novice trainees, transfer is limited if it exists at all. Let's remember that most professional musicians have spent more than 10,000 hours practicing by the time they are twenty. Similarly, the practice needs to be highly focused. If you want to be a neurosurgeon, three months spent on a urology rotation is time wasted.

Investment in IT

Information technology is a vital part of our present, and will be an inextricable ingredient to a successful future. We are so far behind! Last week, I took my piece of plastic, inserted it into a machine in England, accessed my bank in Toronto, paid some bills, withdrew some pounds which were converted at home to dollars, and checked on my mortgage rate. As a patient at one hospital in Toronto, I would have to replicate every last detail in visiting another hospital, and we are not even close to a unique identifier. Our simulators are rudimentary, a product of underinvestment in the field. Our curricula are paper-based, not digital. University Health Network has decided to spend 5% of its \$800 million annual budget on IT for the next decade. That's \$40 million per year, just so that we can start to enter the 21st century. Some cynics would say, give me a nice fountain pen and a piece of crisp stationery, not a keyboard; give me an opportunity to practice on real patients not simulators; give me a book and a fireplace, not an Adobe PDF file and a monitor. But cynics will be left behind, and more important, our students, the “next generation” are accelerating technologically at such a

rapid pace, that unless we focus on incorporating our knowledge structure into their world, we will be left behind and more important, our essential messages may remain undelivered.

Studying the changes

Any theoretical changes will need to be subjected to the scrutiny of educational research. Change for the sake of change alone will not suffice. We need to practice evidence-based education. Fortunately, we are now well poised in our department and our faculty to do just that. In 1988, we started a fellowship program in surgical education in a collaborative effort with our school of education. We had no students, no space, certainly no funding, just a dream and hot dogs and beer. The hot dogs and beer were the enticement we provided for young residents to come to a meeting to learn about training opportunities in education. Sixteen years later we have lots of fellows, lots of space and lots of funding. We have currently expanded our program to include surgeons, anesthesiologists, nurses, physicians, pediatricians, psychiatrists and others. We have graduated 25 surgeons to the masters level and have enrolled 12 education fellows for 2004-5. They are housed in our 5,000 sq ft Wilson Centre for Research in Education. Along with their faculty preceptors, they are conducting numerous research projects fueled by \$4 million dollars of funding. Many do their research on the topic of technical skill, and their home base is our skills lab. In fact, we are currently developing plans to double the size of our skills lab as the demand has now outstripped our capacity.

Our recipe for a successful future will focus on a reaffirmation of the importance for prospective surgeons of performing surgical operations. Changing the learning curve will require a shift in philosophy from observational learning to participatory learning. In order for our residents to exceed beyond our expectations, we will need to provide them with the opportunity for repetitive and deliberate practice. That practice will include real world opportunities

synergized by large amounts of time spent in skills laboratories. The labs will be equipped with a combination of computer-based simulators, which will supercede our current rudimentary, albeit partially effective, low-tech simulation models. Most important, all curricular changes will be validated through hypothesis driven and qualitative educational research focused on providing evidence for changes in practice.

Richard K. Reznick

R.S. McLaughlin Professor and Chair

Ed. Note: *Richard Reznick's emphasis on the importance of "being there", performing surgical operations during training is captured in F.D. Moore's famous quotation: "You can't learn to play the piano by attending concerts."*

OSCE RETREAT – UPDATE

The OSCE retreat held on April 23, 2004 at MacLean House was a terrific success.

Everyone worked to revise the existing bank of OSCE stations. More importantly each subspecialty was able to generate at least 4 new stations each, which should expand our pool of questions nicely. Even exceeding our expectations. I am in the process of collecting all the new information from the participants, and should have the new exam in place for the next academic year.

Carmela Calorendi did a terrific job organizing the day and ensuring that it ran smoothly, and I think that everyone actually enjoyed the process.

Kenneth Pace

Year 4 OSCE Coordinator

The Summer Issue of the Surgical Newsletter shines the spotlight into the future of the Department, emphasizing innovative directions in surgical education, developed in a highly effective process of strategic reflection. Michael Jewett, who led the process, provides an excellent introduction to the detailed and thoughtful draft which will be available soon on the department website at <http://www.surg.med.utoronto.ca/>. Alumni, nurses, patients, faculty and friends of the department are encouraged to add their comments and advice to the draft to help us move forward. Following this blueprint, our department will provide leadership in responding to the transformative forces affecting healthcare.



Martin McKneally

In the chair's column, Richard Reznick contrasts the fluidity of bank information with the stubborn viscosity of health information, reminding us that health care is a remarkably resistant organism when change is required. Surgical leadership can be critically important in overcoming resistance to needed change. The spectacular new operating rooms described by Bryce Taylor are perhaps the best in North America. Their construction, guided by Bryce, Betty Watt, Joyce Flemming and Sue Bell are the result of the visionary surgical leadership of Alan Hudson. Alan overcame the inertia of a resistant healthcare system by appealing directly to the public for funding through construction bonds. This allowed the people of Ontario to invest in the infrastructure needed for their care and long overdue for renewal. I encourage surgeons (who are prized for their ability to make difficult decisions and willingness to take full responsibility for their outcome, often with inevitably incomplete information) to follow Alan Hudson's lead. We need surgeon scientists who are trained in health policy and management. As we develop our educational platform for the future, this basic science of medical care should not be excluded from our educational spectrum. A nearby notice for the program at the Rotman School of Management offers an introduction, and excellent academic programs are available

through the department of Health Policy, Management and Evaluation and the Rotman School.

Clay Christensen, a leading scholar at the Harvard Business School recently made a telling comment about this issue. "When I am with top management at Boeing, they are always talking about airplanes. When I'm with healthcare leaders, all they talk about is budgets, debt, payroll, the government and insurance." His message is that there are insufficient top managers with frontline experience in healthcare. I believe that surgical science and practice is an ideal background for healthcare leadership.

Martin McKneally
Editor

Building The Next World of Health Care

The University of Toronto's Rotman School of Management, in partnership with the University's Department of Health Policy, Management & Evaluation, the Joint Centre for Bioethics, and Harvard's Division of Health Policy Research & Education has developed *Building the Next World of Health Care*, a three-day program (November 4-6, 2004) for health care leaders. It will focus on a variety of health care delivery systems and allow participants to reflect on changes that need to occur in their own systems. Participants will include leaders and innovators in health care from across Canada.

For more information or to apply to the program, please visit www.rotman.utoronto.ca/execprog/healthcare/ or contact:

Michele Milan, Manager, Health Care Executive Programs

Rotman School of Management

Telephone: 416.946.8093

E-mail: health@rotman.utoronto.ca

date of July 1st, 2003, we had to assess what our current needs were in 1998 when we started the planning exercise, what they would be in July 2003, and more importantly, what they might be in 2020 and thereafter.

Few of us had any meaningful experience in this complex area. We established principles to guide us as we went forward:

1. We had to concentrate on *structure* of the operating rooms, especially as it related to changing future requirements.
2. Uppermost in our minds was the way the structure would facilitate the day-to-day *function* of each room and the whole surgical suite in terms of patient flow, sterility, equipment, and the activities of surgeons, anesthesiologists, nurses and other healthcare workers.
3. We wanted to achieve *consistency* in the structure and function of each of the OR's. Although different procedures would usually be carried out in different rooms, the ability of OR personnel, particularly anesthesia and nursing, to work in *any* room would be made easier by consistency in the design.
4. *Involvement* in the planning process of *everyone who works in the OR* would be crucial to success.
5. The structure and function of every operating room had to be *flexible*, recognizing that radically different procedures might be carried out in the same operating room. For instance, our surgeons perform open heart procedures, organ transplants, extensive cancer ablations, vascular surgery, complex reconstructive microvascular flap work, and in most of our divisions minimally invasive surgery.
6. *Patient-centred care* had to be more than a “buzz-word” expression in the new operating rooms. Every aspect of contemporary hospital design, planning and implementation has to be approached with careful consideration of the *patient experience* from entry and registration through transfers and treatment procedures, to post-treatment care, discharge and follow-up. In the operating rooms, there had to be a fine balance in achieving patient-centred care while also *focusing on the healthcare provider*.

7. *Patient safety* as well as safety of all healthcare personnel was the underlying foundation on which every other element was built.

8. Recognizing that no operating room suite should be an “island”, we wished to ensure the most modern *communication system* possible to enhance patient care. We also wished to *capture images* that could be potentially transmitted to the adjacent operating room during living donor transplantation procedures, or to external venues for clinical, educational and research purposes.

The Process

The professionals charged with these planning tasks had the presumed advantage of working in cramped, inefficient conditions for many years, and so the mere correction of perceived imperfections would go a long way to designing our new operating rooms! In approaching this very complex topic we drew on the experience of architects who had built operating rooms in other major North American centres, and the long-term experience of surgeons and particularly nurses and anesthesiologists whose life is for the most part spent in the operating room environment. We also drew on the experience of other centres in Canada and the United States where new operating rooms were being built, or had recently been completed. There was no shortage of companies in the minimally invasive surgery area who were willing to offer advice and bid on “cookie cutter” solutions to our MIS needs. Although we realized that MIS was critical to most of our surgical specialties in future, we had to honour our current case-mix of open-heart surgery, transplantation, and complex surgical oncology that will not be accessible by MIS techniques in the very near future!

In any major construction effort, there is a constant push for the project to be “on time, on budget, and on the mark”. Essentially it is the responsibility of everyone involved to achieve these three major objectives, and it is not surprising that the architects and builders concentrate on the first two, while the ultimate “users” regard the latter as the most important element. If only the third objective were achieved, surgeons, nurses and anesthesiologists would regard the project as successful!

The evolution of this operating suite over the five year period required countless hours of planning meetings, discussions, product and equipment demonstrations, wranglings, resolution of disputes, and celebration of agreements amongst the leaders and general staff. The nursing staff under the direction of Betty Watt, Joyce Flemming and Sue Bell deserve great credit for their attention to detail. Their dogged determination and unwillingness to accept anything short of “perfection” was pivotal to the end result.

The Result

Working with a total “footprint” of 30,000 square feet, we tried to predict the number of operating rooms and the square footage of each room that we could foresee for the future. Twenty-two operating rooms were designed, each of which would have an area ranging from 550-800 square feet. Their configuration would be generally square rather than the usual rectangular shape used previously. Strict adherence to sterility and security, difficult in the old operating rooms, was a paramount goal, achieved by limited access security doors, stricter rules about traffic control, and 17-foot-wide sterile corridors between operating room banks. This configuration would predictably provide challenges in communi-



Spacious corridor outside rooms 1-6

cation, and so a number of North American companies were consulted to achieve the best overall solution to the problem of the main OR desk communicating with an operating room that was literally 300 feet away! The result was a compromise collaborative solution effected by a consortium of all these companies, leading to a multi-pronged approach to communication within the surgical suite. This involved the institution of streaming video-notices outside each operating room, white-

boards, conventional telephone, intercoms, wireless local paging systems, and video connections with each room. The major complaint in the old operating room suite of “it’s too small” was supplanted by “the footprint is far too large”! The communication system has gone a long way to meet the latter concern.



Belina Mandani, respiratory technician, on our “zamboni”, nickname for the mobile floor cleaner (we have two)

Each operating room is characterized by a structure familiar to every surgeon, nurse and anesthetist. The configuration of each room with its booms, lights, doors and windows is similar and consistent. The booms and lights were chosen after a “technology fair” was held in the Nurses’ Residence gym offering hands-on exposure to all proposed equipment from a variety of companies. This process gave all healthcare workers an opportunity to participate in the final selection of major crucial equipment. Most equipment currently in the operating room is now hung from the ceiling on hydraulically operated booms, freeing the floor space of clutter and hazards for workers, and enhancing cleaning procedures between surgeries. All rooms have been wired in the ceilings to allow interchange of lights, camera, and monitors if the surgical team desires a different configuration in a particular room.

All OR’s have been flexibly designed so that a major open procedure may take place with excellent illumination, space for anesthesia, a custom-made nursing station, etc.; when that complex case is completed, an MIS procedure can be undertaken in the same room using state-of-the-art cameras and monitors after appropriate repositioning of equipment.

The audiovisual capabilities of each room are extensive. Each open operation can be photographed by a

hermetically sealed three-chip camera, the images digitized, and sent anywhere in the world through IT lines. In the same way, digital images can be captured during minimally invasive surgery, transmitted anywhere, and simultaneously recorded on regular DVD equipment. For example, on February 22nd, 2004, Tirone David performed a complex cardiac valve repair that was filmed, the images digitized, and then sent via satellite to Japan where there was real-time transmission and reconfiguration of images into a 3D pattern for immediate viewing and interaction with the operating surgeon.



Nursing Control Centre



Nursing Control Centre

The customized nursing station has been designed to allow the circulating nurse to route any images to any monitor in the room. This includes images from the Picture Archival and Communication System (PACS), Endoscopy, the central camera, a side camera, foot camera, anesthetic monitoring of vital signs, or laparoscopic images. Telepathology is also currently being established. It is possible to capture images from four different operating rooms simultaneously and then transmit them virtually anywhere in the world.

We opened our new operating rooms on July 1st, 2003, performing a double lung transplant on the first day. This operation and subsequent procedures have been carried out in a new environment which we believe works very well, providing a bright new home for all our healthcare providers that they will enjoy every day. However, we constantly remind ourselves that the technological aspects of our new surgical venue will soon be outdated unless we keep up with ever-changing trends. We also remain sensitive to the fact that no new structure will ever replace the old-fashioned relationships - between the patient and healthcare providers, and just as importantly between and among all those caregivers who make our institutions what they are today.



Jan Verkaik, Nurse Manager, at the OR "White Board"



"Shelled-in" space for future development in the OR suite area

Bryce Taylor
Professor and Associate Chair, Department of Surgery

A New Strategic Plan For The Department: Think Big and Think Bold

Richard Reznick initiated a renewal of our department's strategic plan last fall by appointing me to lead a planning process to be completed by the end of this academic year. It is clear that we function in an ever more rapidly changing environment. Technological change is blurring the lines between surgery and other disciplines, especially imaging. Enhanced accountability, reduced financial support for individuals as well as the Department, and the increasing influence of the teaching hospitals with their superb research institutes are all driving change. In fact, the teaching hospitals have more research funding and activity than the entire Faculty of Medicine, equalling or exceeding the total of research funding in the rest of the University of Toronto.

The Issues

With over 21 million dollars in grant funding, an accomplished faculty and an enviable track record, ours is recognized as the top Department of Surgery in Canada and ranked in the top 10% in the world. Yet it has faced successive university budget cuts for more than 10 years, has had difficulty achieving a broad-based AFP, has struggled with a morale problem amongst the clinical teachers, and has an aging work force.

Of great concern is that we may be seeing the early signs of a declining interest in surgery as a career among the medical students, particularly women. Alternative service delivery models need to be reviewed to ensure that adequate time is available for resident education. Despite many improvements, like the Technical Skills Centre, reduced on-call time and structured curricula, the basic model of residency training has not changed since its inception.

The Process

To ensure broad-based input from the Department membership and a variety of external parties, the consultative process began with a series of focus groups. More than 60 people participated, including the Research Committee, educational leadership, the SAC, the Chair of the Toronto Academic Health Science

Centre Committee (TAHSC), several other clinical department chairs, hospital development officers, biomedical industry CEOs and individuals involved in privately delivered health care.

The consultative process culminated in a retreat held March 26th to which more than 100 faculty, residents, students and others were invited. The theme was "think big and think bold". The attendees were treated to outstanding presentations, panels and debates with invited speakers including Dr. Alan Hudson, Dr. Martin Barkin, ADM of Health Dr. David McCutcheon, OMA Executive Director Mr. David Pattendon, the CEOs of St. Michael's, Hospital for Sick Children and UHN, Associate Dean Dr. Cathy Whiteside, as well as many members of our department and representatives from others.

As the process reaches its conclusion, the following strategic directions are emerging:

1. strengthen, support and renew faculty
2. enhance teaching to enrich the student experience
3. enhance productivity and impact of research
4. promote interdisciplinarity in research, teaching and clinical practice
5. maximize university / hospital relationships
6. explore and establish alternative sources of revenue

With these general goals in mind, specific strategic actions are now being defined for review and further discussion amongst the faculty. To name a few, these will address opportunities offered by new technology, particularly in imaging and MIS, improving postgraduate education and CME, increasing government commitment to research funding and to strengthening academic medicine, and the significant opportunities for translational research inherent in a huge clinical practice base.

Michael Jewett
Division of Urology



Gallie Day



Richard Reznick - Opening Remarks

The 30th Annual Gallie Day was held on May 14th at the Liberty Grand Entertainment Complex at Exhibition Place. The day began with the Gallie-Bateman Research Presentations, chaired by Shaf Keshavjee, and judged by Dr. Shafique Pirani of the University of British Columbia Department of Orthopaedics and Project Director of the Uganda Sustainable Clubfoot Care Project (USCCP) and an expert panel from our department. First prize was shared by Rachel Khadaroo and Shafie Fazel; Babak Jahromi was runner-up.



Shafique Pirani - Gordon Murray Lecturer

After lunch, Dr. Pirani delivered the Gordon Murray Lecture, "The Congenital Clubfoot Deformity in

Uganda: From Quandary to Opportunity". A symposium on "The Challenge of International Surgery (Funding, War Time and the College of Surgeons)" followed, chaired by Massey Beveridge, Director of the Office of International Surgery, University of Toronto. Panelists were Dr. Lawrence Museru, Orthopaedic Surgeon from the Muhimbili Orthopaedic Institute in Tanzania, Dr. Chris Giannou, Chief, Surgical Division of the International Committee of the Red Cross, Switzerland, Prof. Jimmy James, Secretary-General, College of Surgeons of East, Central and Southern Africa, Tanzania and Dr. Shafique Pirani.



Symposium Panel (left to right) Symposium Chair, Massey Beveridge, Chris Giannou, Lawrence Museru, Jimmy James and Shafique Pirani

Festivities wrapped up with a dinner and awards presentation presided over by Richard Reznick.

This year's Gallie-Bateman Poster Session and Competition preceded Gallie Day on May 13. First prize went to Mina Kim, second prize to Giuseppe Papia, and third to David J. Santone. The Wyeth Award went to Sarah Woodrow.

Winners

Gallie-Bateman Research Presentations

held on May 14.

First Prize Winners:

Rachel Khadaroo (GenSurg Resident)

Amount of Award: \$2,000.00

Title: "Oxidant Stress Induces Altered LPS Signalling Via Src Kinase-dependent Pathway: A Novel Pathway

for Cell Activation Following Shock/Resuscitation”
Supervisor: O. Rotstein

Shafie Fazel (CardSurg Resident)

Amount of Award: \$2,000.00

Title: “The Role of Stem Cell Factor Receptor in Cardiac Remodelling After Infarction”

Supervisors: R. Weisel and R. Li

Runner Up:

Babak Jahromi (NeurSurg Resident)

Amount of Award: \$500.00

Title: “Downregulation of Potassium Channels After Subarachnoid Hemorrhage Contributes to Cerebral Vasospasm”

Supervisor: R. MacDonald



Shaf Keshavjee, Chair,
Gallie-Batemen Research
Presentations



Shafie Fazel (left), Rachel Khadaroo
(centre) and Richard Reznick (right)

Gallie-Bateman Poster Session & Competition

held on May 13th

McMurrich Awards

First Prize Winner: Mina Kim (Student - Div. of Anatomy)

Amount of Award: \$1,000.00

Title: “Retroviral Lineage Tracing Reveals the Contribution of Endogenous Forebrain Precursor Cells to Functional Recovery in Adult Rats Following Stroke Lesion”

Supervisor / Co-authors: Claudia Gonzale, Sam Weiss, Bryan Kolb and Cindi Morshead

Second Prize Winner: Giuseppe Papia (GenSurg Resident)

Amount of Award: \$500.00

Title: “Effect of Hypertonic Saline Resuscitation After

Hemorrhagic Shock and Bacterial Peritoneal Contamination on the Recruitment of Neutrophils into the Peritoneum”

Supervisor / Co-authors: Lori Burrows, Selva Sinnadurai, Rachel Khadaroo, Kinga Powers, Andras Kapus and Ori D. Rotstein

Third Prize Winner: David J. Santone (Student-VascSurg)

Amount of Award: \$250.00

Title: “Improved Cardiac Contractile Function Following Mast Cell Stabilization in Hemorrhagic Shock and Resuscitation”

Supervisor / Co-author: Thomas F. Lindsay

Wyeth Award

Winner: Sarah Woodrow (NeurSurg Resident)

Amount of Award: \$500.00

Title: “Objective Process Measures of Surgical Suturing”
Supervisors / Co-authors: Jason Park, Adam Dubrowski and Stanley Hamstra



(Left to Right) Mina Kim, Benjamin Alman, Richard Reznick, Giuseppe Papia, Sara Woodrow, David Santone and Stanley Hamstra



Sarah Woodrow (left) and Sonja Finocchiaro, Wyeth Area Hospital
Manager (right)

Department of Surgery – Annual Awards Representing Outstanding Contributions

Andres Lozano (NeurSurg) Wins *Lister Prize*

Lister Prize in surgery is awarded to an investigator who has shown outstanding and continuing productivity of international stature as evidenced by research publications, grants held, students trained and other evidence of the work produced.



Bryce Taylor (left) presents the Lister Prize to Andres Lozano (right)

Thomas Waddell (ThorSurg) Receives the *George Armstrong-Peters Prize*

First awarded in 1912, the Peters Prize honours younger surgeons who have sustained continued productivity in basic science research.



Robin Richards (left) presents the George Armstrong-Peters Prize to Thomas Waddell (right)

E. Bruce Tovee Teaching Awards to Peter Chu (GenSurg) for Undergraduate Education and to Theodore Ross (GenSurg) for Postgraduate Education

These teaching awards honour the outstanding past teachings of Professor Bruce Tovee.



David Backstein (right) presents Tovee Award for Undergraduate Education to Peter Chu (left)



John Bohnen (left) presents Tovee Award for Postgraduate Education to Theodore Ross (right)

Robin McLeod (GenSurg) Receives the *Charles Tator Surgeon-Scientist Mentoring Award*

The Charles Tator Surgeon-Scientist Mentoring Award is intended to honour individuals supervising participants in the SSP who emulate Professor Tator's qualities, namely excellence in research, commitment to SSP mentoring and dedication to promotion of Surgeon-Scientists. The intent of the award is to provide recognition for teaching contributions made by supervisors to SSP trainees.



Richard Weisel (left) presents the Charles Tator Award to Robin McLeod (right)

Peter Neligan (PlasSurg) Awarded the *Surgical Skills Centre Distinguished Education Award 2003-2004*

The University of Toronto Surgical Skills Centre Distinguished Education Award for Outstanding Contributions demonstrates the Centre's commitment to surgical skills education. This award recognizes those individuals who have made exemplary, innovative contributions to teaching and learning in the Surgical Skills Centre over the past year.



Richard Reznick (left) presents the Surgical Skills Centre Distinguished Education Award 2003-2004 to Peter Neligan (right)

David Urbach (GenSurg) Receives the 2004 *Bernard Langer Surgeon-Scientist Award*

This award is presented to an outstanding graduate of the Surgeon-Scientist Program who shows the greatest promise for a career in academic medicine.



Bernard Langer (right) presents the Bernard Langer Surgeon-Scientist Award to David Urbach (left)

Andrew Kader (UrolSurg) Receives the *Donald R. Wilson Award*

The Donald R. Wilson Award recognizes significant contributions by a resident surgeon for continued instruction of peers and medical students.



Stanley Hamstra (left) presents the D.R. Wilson Award to Andrew Kader (right)



Medical Students - Jazz Band

2004 Robert Stone Lecture “Learning to Operate: From Lab Coats, to Arm Chairs, to Simulators”

Bryce Taylor reminded the audience of the superb surgical teaching skills of Bob Stone, a leader of Canadian surgery and a member of our department from 1973 to 1993. The lecture bearing his name was given by Gerry Fried, Professor of Surgery and the Steinberg-Bernstein Chair of Minimally Invasive Surgery at McGill University. Gerry's talk on “Learning to Operate” combined common sense, humour and an outstanding quantitative evaluation of simulation techniques for teaching laparoscopic surgery.

As an antidote to the pressures on surgical education resulting from restriction of residents' duty hours, reduced operating room time and the proliferation of innovative procedures requiring new skills, Gerry and his colleagues have developed a highly efficient, low-cost, laparoscopic simulator, and demonstrated unequivocally that it has a precisely quantifiable effect on improving the precision and efficiency of laparoscopic performance by surgical residents. The McGill's Inanimate System for Training and Evaluation of Laboratory Skills (MISTELS) has reliable metrics that reward skilled performance in transferring, cutting, tying and stitching using real laparoscopic instruments. There is an excellent correlation of performance in the trainer with skill scores on the in-training evaluation of residents by their surgical mentors. Practice is available at any time. Very low cost, low technology trainers are available in the lounges and many other places where residents (and staff surgeons) can work on their endoscopic skills. Choreographing hand movements is the biggest challenge because of the fulcrum effect of ports, resulting in mirror imaging of hand movements. Moving your hand to the right sends the tip of the



Gerry Fried

instrument to the left and vice versa. The Fundamentals of Laparoscopic Surgery (FLS) program that Gerry has developed has been adapted by the Society of American Gastrointestinal Endoscopic Surgeons and will probably soon be adopted by the American College of Surgeons. It has been proven to be “useful for upgrading the skills of practicing surgeons.” The validation of these teaching tools is convincing evidence of a high level of scholarship in surgical education. Residents are motivated to develop their skills by two mechanisms: the highest scoring resident is recorded on the station, as is done in arcade games; and surgeons are not allowed to operate until they achieve the required criterion score. In addition, the skills lab is one floor away from the clinical floor in the Montreal General Hospital surgical teaching unit. All residents have been able to get to the required level of qualification under this program. Medical students have become very proficient. Studies in students have shown that learning skills in one area greatly enhances their skills in another related domain. For example, among medical students who complete the course, practicing passing a peg from instrument to instrument raises their proficiency at suturing to a fifth year resident level. Gerry closed the session with a dramatic example illustrating the effectiveness of the teaching program: the first living kidney donor nephrectomy performed laparoscopically at McGill was performed at the same level of proficiency as the 200th such procedure at the University of Maryland. The learning curve was eliminated through the use of the laboratory. This was a vivid and irrefutable demonstration of the effectiveness of the program developed by our 2004 Robert Stone Lecturer.

M.M.



Challenging Traditional Thinking About Stem Cells



Sheila, Steven and Alexander

Neurosurgery resident Sheila Singh's research challenges the traditional way of thinking about cells in the central nervous system, and about the origins of brain tumours.

Traditionally, it was taught that adult brain cells are incapable of renewal. What Sheila and her colleagues are finding is that there are stem cells in the brain that become part of brain tumours, and that their high rate of self-renewal may provide the opportunity for the mutations that lead to cancer.

Researchers studying other cancers – leukemia, myeloma and breast cancer – are finding similar results. Leukemia researchers, headed by John Dick at the Ontario Cancer Institute, Princess Margaret Hospital pioneered the work on stem cells as the originator of malignancy, tracking a CD133 + multipotent stem cell that is capable of renewal. There are lots of similarities between cancer and stem cells in terms of high self-renewal capacity and machinery. Sheila has published her results in *Cancer Research* and will go to the International Society for Stem Cell Research meeting to try and bridge the fields of oncology and stem cell biology, a daunting challenge.

Sheila is now working with Peter Dirks doing in vivo injection of CD133 + cells into immunodeficient mice. These cells produce brain tumours, whereas CD133- cells mature, rather than form tumours. They will look for markers characterizing and clarifying the transformation event. "We know that tumours are composed of different cell types. Is there a minority of cells capable of regenerating a tumour? Do normal brain cells just go bad, or do brain tumours arise from a genetic change in a normal neural stem cell (NSC)? NSCs possess a self-renewal machinery that is primed and can be harnessed to create a cancer cell, and their longevity targets them for the accumulation of genetic mutations. Therefore NSCs and their closely related downstream proliferating progenitors should be further investigated as possible targets of trans-

formation in the formation of brain tumours. It seems likely that the accumulation of genetic mutations over the life of the cell leads to malignancy, as has been demonstrated in other cancers."

Sheila grew up in Dundas, Ontario, a small community near Hamilton. Her father is a psychiatrist. She studied neurobiology and molecular genetics as an undergraduate at McGill University. She completed four years of clinical neurosurgery before beginning her laboratory work. In 2002, she transferred to the PhD program at University of Toronto; she gave birth to her son Alexander the same day! She and her husband, who is an architect, each took six months parental leave. Alexander now spends part of the week with two devoted grandmothers, and two days at the Queen's Park childcare centre, which is close enough to Sheila for her to run over at any time when needed. Successfully balancing her many responsibilities, Sheila provides a model that clearly demonstrates how women can live a fulfilling and well-rounded life in the challenging field of academic surgery. In addition to all the foregoing, Sheila is a musician who sings and plays both the piano and flute!

M.M.

Announcement

Annual Sunderland Society Conference

The Society is dedicated to the advancement of peripheral nerve surgery.

Host: University of Toronto

Program Chairs: Raj Midha & Dimitri Anastakis

For additional information please contact: Kathy Pavlovic, Administrative Coordinator Surgical Services
Tel: 416-603-5512 Fax: 416-603-5407 or

Email: kathy.pavlovic@uhn.on.ca

Wednesday, September 15th, 2004, 7:00 a.m. to 12:00 noon
Main Auditorium, WW 2-401, Toronto Western Hospital

Guest Speaker: Dr. Goran Lundborg, Sweden

Topic: "Cortical Plasticity Following Sensory Nerve Lesions"

Panel presentation titled:

"Adaptive and Maladaptive Cortical Plasticity".

Panelists include: Dimitri Anastakis, David Mikulis, Robert Chen, Karen Davis and Judy Hunter.

Everyone welcome.

New Staff

The Department of Surgery warmly welcomes the following individual who has joined our Department.



Yaron Shargall

It is with great pleasure that the Thoracic Division of the University of Toronto announces the appointment of Yaron Shargall to St Joseph's Health Centre group, which currently consists of Drs. Chris Compeau and Ernie Spratt. Yaron fills a

large vacancy created by the departures in recent years of Drs. Mo Yaman and Don Jones.

Yaron graduated from Hadassah Hebrew University Medical School in Jerusalem, and then completed his cardiothoracic surgery training in the Hadassah University Hospital. Between 2001-2003, he completed his general thoracic surgery training at the University of Toronto. He excels at teaching, and has received a number of awards in this area. On two occasions, he made the Dean's Honour List for excellence in teaching. He also received the F. Griff Pearson Award for excellence in teaching in thoracic surgery in Toronto.

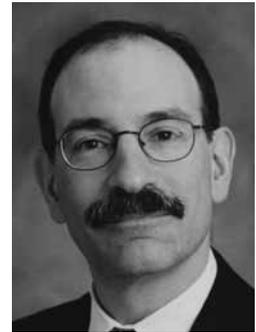
Yaron and his family are very much involved with classical music. He and his two sons play the piano, and his daughter plays the flute and sings in the Mendelssohn Youth Choir. His wife works as an occupational therapist with disadvantaged children. One of their favourite pastimes as a family is hiking in Algonquin Park.

His special fields of interest include teaching at all levels, both undergraduate and postgraduate, thoracic oncology, particularly advanced lung cancer; and developing ways of vascular and chest reconstruction. Yaron is involved in clinical research related to lung transplants, and has taken a keen interest in continuing the cancer database at St. Joseph's Health Centre. We are confident that he will make a great contribution to the St. Joseph's division, as well as the thoracic surgical program at the University of Toronto.

Ernie Spratt
Division of Thoracic Surgery

Ori Rotstein Appointed Surgeon-in-Chief of St. Michael's Hospital

Ori Rotstein has accepted the appointment as Surgeon-in-Chief at St. Michael's Hospital following a nationwide search. An internationally renowned surgical researcher, Ori will bring his remarkably productive program of study of the response to sepsis and injury to a centre that is focused on



Ori Rotstein

trauma and critical care. Cardiologist Bob Howard, chair of the search committee said, "this is a perfect fit with our priority programs of acute organ injury, critical care and inner city health. The St. Mike's community is very excited." Former Surgeon-in-Chief Jim Waddell called the appointment "a great compliment to our institution to be able to attract a surgeon-in-chief of his calibre." Ori has directed the Surgeon Scientist program at the university for the past decade. His mentoring of surgical residents and highly original research made this program a reference standard of excellence, and won the University's Northrop Frye award for outstanding achievement in linking teaching to research. Ori will continue as Director of the Institute of Medical Sciences and Vice Chair Research of the Department of Surgery.

M.M.



Alumni Profile



Edward H. Simmons

Dr. Edward H. Simmons is a distinguished doctor, talented educator and medical innovator. He attended medical school and completed his Master of Surgery at UofT. In 1956 he joined the medical staff of the Toronto East General Hospital

(TEGH). By 32, he was Chairman of the Committee on Postgraduate Instruction in Orthopaedic Surgery at the University of Toronto, a position he held until 1983.

Among his many medical breakthroughs, his radical treatment of ankylosing spondylitis or spinal arthritis which involved breaking the patient's spine to correct the devastating effect of this disease, caught the public's attention in the 1970's and earned him the nickname "Neck Breaker". Today this medical technique is widely practiced and taught to new surgeons. Dr Simmons' innovations inspired a teaching curriculum that has trained 62 spine surgeons now at 58 University Centres in North America, 2 in South Africa, 1 in Australia and 1 in China. He is the author of 20 book chapters, over 156 scientific articles, and 5 teaching movies. The Simmons Surgical Society was formed to promote his medical techniques and teachings.

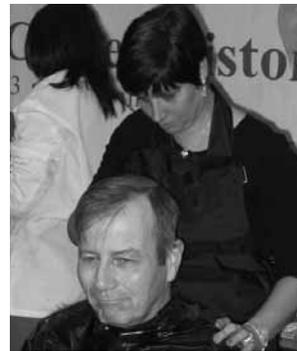
Dr. Simmons has enjoyed a wonderful family life. In 1953 he married Joyce Finlayson, a Doctor's daughter who was Head Nurse at the Hospital for Sick Children. They raised four children, their eldest son Edward, like his father, interned at TEGH, trained in Orthopaedic Surgery at the UofT, and now practices at the University of Buffalo. Nancy is in music in New York City, William is a cardiologist in Oakville, Ontario and Ian practices law in Washington, D.C.

Dr. Simmons was devastated when Joyce died of cancer of the lung in 1989. In 1991 he re-met a former TEGH operating room nurse Juanita Roberts who had been widowed in 1990. They married in 1992 and have a combined family of 6 children and 9 grandchildren. They all enjoy Dr. Simmons' passion for sailing on the "Silver Fox" in Lake Ontario.

Dr. Simmons is dedicated to the service of community and has made a tremendous contribution to the patients and people of Toronto and Buffalo. To learn more about his remarkable life, please visit www.simmonssurgicalsociety.org

Chris K. Costello
TEGH Foundation

U ofT Cuts for Cancer Events Raises Hair and \$17,800



Michael Wiley (Before)



Michael Wiley (After)

Anatomy Chair named Celebrity Shaver

Upon learning about a student-run event aiming to collect both funds for cancer research and donations of hair for prosthetic wigs, Dr. Mike Wiley, Chair of the Department of Surgery's Division of Anatomy, challenged his first year medical class. He promised to shave his head if they raised \$1,000 in benefit of the Canadian Cancer Society through the 1st Annual U of T Cuts for Cancer event. Ponytails shorn at U of T Cuts for Cancer were shipped to Wigs for Kids (www.wigsforkids.org) and Locks of Love (www.locksoflove.org), non-profit organizations that collect hair donations and manufacture wigs for children. The wigs are used for children who suffer from long-term medical hair loss, particularly those with the autoimmune disease *Alopecia areata* for which there is no known cause or cure. About 15 ponytails are needed to make one wig, which has a market

value of \$3000 (USD). The prostheses help to restore the children's self-esteem and confidence in facing the world and their peers.

"Although I don't have enough hair anymore to use in a wig," says Dr. Wiley, "I shaved my head to hold up my part of the deal for my students' and colleagues' fundraising success, and to help build awareness for the event and for cancer research."

Rebecca Davies
Senior Development Officer



Honours/Awards/ Accomplishments

Jameel Ali (GenSurg) was this year's winner of the Trauma Achievement Award of the American College of Surgeons, Committee on Trauma (COT), in recognition of his extensive work in education in COT. The committee is dedicated to the improvement in all phases of the management of the injured patient including pre-hospital care and transportation, hospital care and rehabilitation as well as injury prevention and the provision of education to improve trauma care. The award was presented in March 2004.

Darius Bagli (UrolSurg) was presented with a Service Award from the Society for Basic Urologic Research (SBUR) at the Spring 2004 meeting in San Francisco, May 8, 2004. The decision to honour Darius with this award was made by the SBUR executive board, in recognition of his tremendous efforts, valuable service and insight in structuring and expanding the SBUR website and maintaining its function at a professional level.

Mark Bernstein (NeurSurg) has been appointed as a regular bioethics columnist for *The National Review*

of Medicine, a medical tabloid published bi-weekly out of Montreal by *Parkhurst Publishing*.

Michael Borger (CardSurg) has received the Dean's Fund New Staff Competition 2003 Award for his project: "Minimal Invasive Cardiac Surgery: Is it Safe for the Brain?"

Lori Burrows (Research) was successful in her application for a CIHR New Investigator Award. This award pays \$50K per year for five years towards salary. The proposal was titled: "Novel Insights into Pseudomonas Aeruginosa Type IV Pili Structure and Function".

Principal investigator, P.L. Howell; co-investigators **Lori Burrows** and C.M. Deber have been awarded \$33,000 from Protein Engineering Network Centre of Excellence PENCE 2004-2005 for project titled: "Defeating the "Bacterial Force Field": Studies of Alginate Export and Function in Pseudomonas Aeruginosa".

Peter Dirks (NeurSurg) has received CANADA'S TOP 40 UNDER 40 award. In April, the results of the ninth annual Top 40 Under 40 Program were announced. This program celebrates Canada's leaders of today and tomorrow, with honourees coming from many disciplines and fields across Canada. The aim of the Program is to foster mentorship and professional development by introducing these leaders to the established business community and by promoting them as role models for young Canadians.

Honourees were selected by an advisory panel of business and community leaders assembled by The Caldwell Partners International, the first and largest executive search firm in Canada. Receiving more than 1,400 nominations, the panel rated nominees on five criteria: vision and leadership, innovation and achievement, community involvement, impact, and growth and development strategy.

Peter is a neurosurgeon at the Hospital for Sick Children. His research on brain tumours focuses on stem cells and tumour growth. Dr. Dirks' work has helped

establish that tumour growth derives from uncontrolled division of stem cells within tumours. Dr Dirks' discoveries were cited by the Top 40 Under 40 as stimulating a new way of thinking about cancer cell growth, affecting both the study and treatment of a disease that is a leading cause of cancer death among children.

Michael Fehlings (NeurSurg) received an Award of Merit (2nd place) in Basic Science from the 2004 Heart and Stroke Clinical Update Meeting for his project titled: "Descending Cardiovascular Pathways in Humans with Cervical Spinal Cord Injury: Clinical and Histopathological Correlations".

Michael has also been appointed a McLaughlin Scholar, R. Samuel McLaughlin Centre for Molecular Medicine, May 1, 2004 – April 30, 2005.

Peter Ferguson (OrthSurg) has received the Dean's Fund New Staff Competition 2003 Award for his project: "Investigation of the Use of Bone Marrow Stromal Cells to Enhance Compromised Surgical Wound Healing".

Geoffrey Fernie (Research) has received The Canada Foundation for Innovation Award (\$7,358,556) for his project titled: "Intelligent Design for Adaptation, Participation and Technology (IDAPT): Innovative Rehabilitation for People in Challenging Environments".

Christopher Forrest (PlasSurg) received the W.K. Lindsay Research Supervisor Award, which was presented at the Tau Omicron Phi Chi Visiting Professor Dinner, March 26, 2004 in recognition of his significant contributions to the nurturing of plastic surgery residents' research.

Magdy Hassouna (UrolSurg) was elected Vice President of the International Society of Pelvic Neuromodulation in La Jolla, CA, January 22 – 24, 2004.

Peter Kim (GenSurg) has been successful with his application to the Primary Health Care Transition Fund (PHCTF) released by the Ministry of Health and Long-term Care (\$1,877,500) for project: "The Community-Based Materno-Fetal Health Care Network".

Joan Lipa (PlasSurg) received the Arni Freiberg Teaching Excellence Award. This was presented at the Tau Omicron Phi Chi Visiting Professor Dinner, Friday, March 26, 2004 in recognition of outstanding contributions to plastic surgery resident education.

Michael McKee (OrthSurg) is the recipient of the Orthopaedic Trauma Association's Edwin G. Bovill Jr. MD Award for Best Paper titled: "Previously Unrecognized Deficits After Non Operative Treatment of Displaced, Midshaft Fracture of the Clavical Detected by Patient Based Outcome Measures and Objective Muscle Strength Testing". The award was presented at the recent American Academy of Orthopaedic Surgeons meeting in San Francisco. Dr. McKee won this award last year as well.

Kenneth Pace (UrolSurg) has been awarded the Dean's Fund New Staff Competition 2003 Award for his project: "Impact of Pneumoperitoneum on Renal Physiology in Rat and Porcine Models: The Importance of Renal Response to Hypoxia".

Farhad Pirouzmand (NeurSurg) principal investigator for a new multicentre project: "Phase III RCT Comparing IL13-PE38QQR to Gliadel Wafer in Recurrent GBM Patients". Sunnybrook and Women's College Health Science Centre has been selected as one of the sites for this study. This study is called "PRECISE" and will be starting in the next few weeks.

Sidney Radomski (UrolSurg) won the Wightman-Berris Academy Award for Individual Teaching Excellence 2003-2004.

Richard Reznick (GenSurg) has been acclaimed to the UofT Academic Board as a representative of the Faculty of Medicine teaching staff. Dr. Reznick's term will start on July 1, 2004 and continue until June 20, 2007.

James Rutka (NeurSurg) has been appointed as the Scientific Program Chair for the 2005 AANS Annual Meeting in New Orleans.

Patricia Stewart (Anatomy) is the recipient of the 2004 John Reudy Award for Innovation in Medical

Education. This award, which is given by the Association of Canadian Medical Colleges (ACMC) recognizes her significant contributions to computer based education.

Charles Tator (NeurSurg) has been appointed the Robert Campeau Family Foundation Chair Emeritus effective July 1, 2004 to June 30, 2005.

Vasundara Venkateswaran (UrolSurg) has received the Dean's Fund New Staff Competition 2003 Award for her project: "Inhibition of Prostate Carcinogenesis in the Lady TRAMP Mice by the Administration of Antioxidants in the Diet - Protein Profiling by SELDI Mass Spectrometry".

Paul Wales (GenSurg) has been awarded the Dean's Fund New Staff Competition 2003 Award for his project: "The Effect of Intestinal Continuity on Circulating Levels of Glucagon-like Peptide-2 (GLP-2) in Children".

Alan Murray Wiley (OrthSurg Alumni) at a recent meeting of the Arthroscopy Association of North America, was recognized as a Founder for his work on Shoulder Arthroscopy.

Murray has also received an award from The International Congress for Diseases of the Shoulder in Helsinki for his contributions to Surgery.

Gordon Chu (Research Fellow, Supervisor: M. Fehlings) received the Outstanding Paper Award 2004 for his project titled: "The Role of the p75 Neurotrophin Receptor After Compressive Spinal Cord Injury in Mice" presented at the AO Spine Fellows Forum, March 25-28, 2004, Banff, Alberta.

Doreen Chung (GenSurg Resident) and **Catherine Kim** (GenSurg Resident) won the 2004 UofT Surgical Skills Centre Laparoscopic Skills Competition for PGY1s in February 2004.

Karen Cross (PlasSurg Resident) was presented with the 2004 Mentor Scholarship at the Tau Omicron Phi Chi Visiting Professor Dinner, March 26, 2004.

Anand Ghanekar (GenSurg Resident, Supervisor: G. Levy/D. Grant) has been awarded the 2004 Canadian Research Award for Specialty Residents, Division of Surgery, by the Royal College of Physicians and Surgeons of Canada.

Cory Goldberg (PlasSurg Resident) won the Tau Prize; presented at the Tau Omicron Phi Chi Visiting Professor Dinner, March 26, 2004, for the best clinical paper titled: "Bone Engineering in a Rabbit Craniotomy Defect Using Composite Biodegradable Scaffold".

Brent Howley (PlasSurg Resident) won the Mentor Prize; presented at the Tau Omicron Phi Chi Visiting Professor Dinner, March 26, 2004, for the best clinical paper titled: "Tuberous Breast Deformity: Reconstructive Strategies".

Babak Jahromi (NeurSurg Resident) received the KG McKenzie Basic Neuroscience Research Award. This will be presented at the upcoming Canadian Congress of Neurological Sciences Meeting in Calgary in June 2004.

Rachel Khadaroo (GenSurg Resident, Supervisor: O. Rotstein) won first prize in the basic science section of the Trauma Resident Papers Competition at the recent meeting of the American College of Surgeons on Trauma. Her winning paper was titled: "Oxidative Stress Reprograms LPS Signaling via src Kinase-dependent Pathway". This is the second year in a row that a resident from Toronto has won.

Michael Taylor (NeurSurg Resident) won the 2004 Peter A. Steck Memorial Award for best basic science neuro-oncology paper presented at MD Anderson Cancer Center, Houston, Texas.

Michael has also received a 2004 CIHR Clinical Scientist Award.

Subodh Verma (CardSurg Resident) received the 2004 American College of Cardiology Young Investigator Award for his work titled: "Stem Cell Factor is Critical for Neointimal Formation by Bone Marrow Derived Progenitors". This is the second time Dr. Verma has won this award.

Division of Urology

The Annual Charles J. Robson Research Day - UPDATE

Held on April 1, 2004

Visiting Professor: Dr. Mostafa Elhilali, Chairman, Department of Surgery, McGill University

Lectures: April 1 - "Treatment of BPH"

April 2 - "The Use of Lasers in Urology"

There were 25 research presentations from the division and winners in the various categories were as follows:

Resident Basic Science: **Timothy Davies** for his presentation: "HOGGI Gene Enhances Screen-Detected Prostate Cancer"

Collaborators: T. Davies, R. Nam, J. Trachtenberg, M. Jewett, W. Zhang, A. Toi and S. Narod

Resident Clinical: **Ashis Chawla** for his presentation: "Vasectomy Follow-Up: Clinical Significance of Rare Non-Motile Sperm In the Post-Op Semen Analysis"

Collaborators: A. Chawla, B. Bowles and A. Zini

Honourable Mention: **Tara Moskalyk** for her presentation: "Laparoscopic Radical Prostatectomy in a Community Practice"

Collaborators: S. Sharir, T. Moskalyk and S. Flax

Fellow Basic: **Kourash Afshar** for his presentation: "Compsite Colonic-Urothelial Flap for Bladder Augmentation Using Cell Spray Technique"

Collaborators: K. Afshar, A. Hafez, C. Smith and A. Khoury

Honourable Mention: **Ahmed Haddad** for his presentation: "Fisetin, A Naturally Occurring Dietary Flavonoid, Inhibits the Proliferation of Human Prostate Cancer Cell Lines IN Vitro"

Collaborators: A. Haddad, L. Klotz, N. Fleshner and V. Venkateswaran

Fellow Clinical: **Rami Al-Azab** for his presentation: "Prostate Volume is the Strongest Predictor of Cancer Diagnosis at Transrectal Ultrasound Guided Prostate Biopsy with Prostate Specific Antigen Values Between 2.0 – 9.0 ng/ml."

Collaborators: R. Al-Zzab, N. Fleshner, A. Toi and G. Lockwood

Honourable Mention: **Artur Grabowski** for his presentation: "Improved Patient Selection for High Prostate Cancer Using the Combination of the KLK2 Polymorphism and Serum hK2 Levels"

Collaborators: A. Grabowski, R. Nam, J. Trachtenberg, M. Jewett and S. Narod

A successful day was followed by a gala dinner at the Vaughan Estate, enjoyed by members of the division, their partners and urologic colleagues from the community.

Sender Herschorn

Division Chair, Urology





Grants & Fellowships

Mark Bernstein (NeurSurg) received a CIHR grant for his study: “Ethical Challenges in the Preparedness and Response for SARS: An Interdisciplinary Research Study”.

Collaborators: R. Upshur, P. Singer, A. Daar, L. Hawryluck, D. Martin, M. Bernstein, W. Gold, K. Wilson, R. Styra and R. Zlotnik Shaul

Earl Bogoch (OrthSurg) and co-applicants Susan Jagial (Dept. of Physical Therapy), June Carroll (Dept. of Family and Community Medicine), Gillian Hawker (Dept. of Medicine), Lisa Jaakkimainen (Dept. of Family and Community Medicine), **Hans Kreder** (OrthSurg), Merick Zwarenstein (Dept. of Family and Community Medicine), and Dina Brooks (Dept. of Physical Therapy) have received a two-year Primary Health Care Transition Fund Grant from the Ontario Ministry of Health and Long-Term Care.

Lori Burrows (Research) has been successful in obtaining CIHR, III Pilot Project Grant for New Investigators (\$71,800) 2004-2005 for project titled: “Peptidoglycan Synthesis and Bacterial Biofilm Formation”.

Principal investigator, Christine Bear; co-investigators **Lori Burrows**, Charles Deber, Peter Durie, Cliff Lingwood, Daniela Rotin and Herman Yeger received a three-year grant (\$1.44M) from the Canadian CF Foundation’s BREATHE Program, starting April 2004 for project titled: “Targeted Small Molecule Therapies for Cystic Fibrosis”.

Mark Cattral (GenSurg) has received a three-year Canadian Institutes of Health Research Operating Grant (CIHR) for his project: “Investigation of Dendritic Cell Ontogeny from Highly Purified Precursors”.

Peter Dirks (NeurSurg) has received a three-year NCIC Grant for his project titled: “A Study of Cancer Stem Cells in Human Brain Tumours”.

Annie Fecteau (GenSurg) has received a grant in the latest Physicians’ Services Incorporated Foundation Grants competition for her project: “A Qualitative Study Comparing Healthcare Providers’, Patients’ and Family Perceptions, Attitudes and Beliefs About the Risks of Living Liver Donation”.

Neil Fleshner (UrolSurg) has received a grant from the Ontario Cancer Research Network, (\$594,000) for project: “Translational Companion to PRP-1”.

Reginald Gorczynski (Research) with co-applicants Michael Sefton (Institute of Biomaterials and Biomedical Engineering) and Jeffrey Medin (Dept. of Medical Biophysics) have received a three-year Canadian Institutes of Health Research Operating Grant (CIHR) for their project: “Tissue Engineering: Immune Response and Vascularisation”.

Ab Guha (NeurSurg) received a three-year NCIC Grant for his project titled: “Role of Angiopoietins in Human Astrocytomas”.

William Hutchison (Research), **Andreas Lozano** (NeurSurg) and co-applicant Jonathan Dostrovsky (Dept. of Physiology) received a five-year Canadian Institutes of Health Research Operating Grant (CIHR) for their project: “Neurophysiological Studies of Human Subthalamic Nucleus”.

Joan Ivanov (CardSurg) with co-applicants **Michael Borger** (CardSurg), **Tirone David** (CardSurg) and Jack Tu (Dept. of Medicine) received a one-year Canadian Institutes of Health Research Operating Grant (CIHR) for their project: “A Propensity Score, Pairs-matched Study of Late Outcomes for Off-pump Versus On-pump Coronary Artery Bypass Graft Surgery”.

Thomas Lindsay (VascSurg) has received a grant in the latest Physicians’ Services Incorporated Foundation Grants competition for his project: “Ruptured Abdominal Aortic Aneurysm: Molecular Mechanisms to Clinical Studies”.

Gergely Lukacs (Research) has received a five-year Canadian Institutes of Health Research Operating Grant (CIHR) for project: “Molecular Mechanism of Cystic Fibrosis Mutation Associated with Endosomal Recycling Defect of CFTR”.

Robert Nam (UrolSurg) was awarded a one-year grant from the Canadian Prostate Cancer Research Foundation, (\$55,000) for his project titled: “Serum IGF-1 Levels and High Grade Intraepithelial Neoplasia”.

Glenn Regehr (Research) and co-applicants Mathieu Albert (Dept. of Psychiatry), Brian Hodges (Dept. of Psychiatry), and Lorelei Lingard (Dept. of Paediatrics) have received a two-year Canadian Institutes of Health Research Operating Grant (CIHR) for their project: “Medical Education in Transition: From Service Provision to Scientific Knowledge Production”.

Glenn and co-applicants Tara Kennedy (Dept. of Paediatrics), Ross Baker (Dept. of Health Policy, Management and Evaluation) and Lorelei Lingard (Dept. of Paediatrics) have received a three-year Canadian Institutes of Health Research Operating Grant (CIHR) for their project: “A Fine Balance: Patient Safety and Trainee Education on Clinical Teaching Teams”.

Robert Stewart (UrolSurg) and co-investigator Leong-Poi (Division of Cardiology) have been awarded a JP Bickell Foundation Grant (\$64,254) for project titled: “Molecular and Functional Imaging of Tumour Angiogenesis Using Contrast-enhanced Ultrasound”.

Charles Tator (NeurSurg) and co-applicant Molly Shoichet (Institute of Biomaterials and Biomedical Engineering) have received a four-year Canadian Institutes of Health Research Operating Grant (CIHR) for their project: “Enhancing Axonal Regeneration Following Spinal Cord Injury by Localized Delivery of Neuroregenerative factors”.

Michael Tymianski (NeurSurg) with co-applicants John MacDonald (Dept. of Physiology) and Hubert Van Tol (Dept. of Psychiatry) received a five-year Canadian Institutes of Health Research Operating

Grant (CIHR) for their project: “The Role of TRP Channels in Stroke, Aging and Calcium Sensing in the Central Nervous System”.

Michael has also received a five-year Canadian Institutes of Health Research Operating Grant (CIHR) for his project: “Targeting Postsynaptic Density Proteins in the Treatment of Central Nervous System Injury”.

Herbert von Schroeder (OrthSurg) has received a two-year Physicians’ Services Incorporated Foundation Grant for his project: “The Biology of the Scaphoid Fracture Non-unions”.

Frances Wright (GenSurg) has received funding in the amount of (\$113,096) over three years from the Canadian Breast Cancer Foundation – Ontario Chapter for project: “Is Clinical Breast Examination, Mammography or Magnetic Resonance Imaging the Best Method for Assessing Residual Disease After Neoadjuvant Therapy in Women with Locally Advanced Breast Cancer?”

Homer Tien (GenSurg Fellow) and co-PI **Fred Brenneman** (GenSurg) received a grant in the latest Physicians’ Services Incorporated Foundation Grants competition for his project: “Radiation Exposure from Diagnostic Imaging in Trauma Patients”.

Homer and co-investigators **Fred Brenneman** (GenSurg), Donald Redelmeier (Dept. of Medicine), and Pang Shek (Dept. of National Defence, Ottawa) have received a one-year Department of National Defence Research Program in Quality of Life Grant for their project: “Causes of Death in Active Duty Canadian Forces Personnel”.

Lorenzo Ferri (ThorSurg Resident, Supervisor: G. Darling) has received a grant in the latest Physicians’ Services Incorporated Foundation Grants competition for his project: “A Prospective Patient Based Analysis of the Epidemiology and Treatment Patterns of Achalasia”.

Jay Riva-Cambrin (NeurSurg Resident, Supervisor: J. Drake) received a grant in the latest Physicians’ Services

Incorporated Foundation Grants competition for his project: "Pediatric Posterior Fossa Tumours: Preoperative Predictors of Chronic Hydrocephalus".

Subodh Verma (CardSurg Resident) has received a grant-in-aid from the Heart and Stroke Foundation (\$135,000) for project titled: "Endothelial Progenitor Cells for Myocardial Repair: Role of PPAR γ ".

Sarah Woodrow (NeurSurg Resident) with **M. Bernstein** (NeurSurg), **B. Murray**, **A. Dubrowski** (Research), **R. Reznick** (GenSurg) and **S. Hamstra** (Education) have received a grant from the PSI Foundation for their study: "The Effects of Sleep Deprivation on Resident Surgeon Psychomotor Skills".

University Rounds

University Rounds will resume in September with the Annual Address by Richard Reznick, Chair, Department of Surgery scheduled for 7:30 am on Friday, September 24, 2004 at St. Michael's Hospital, Paul Marshall Auditorium, Queen Wing, Ground Floor. See you all there!

Correspondence

Letters to the editor are welcome to keep the community informed of opinions, events and the activities of our surgeons, friends and alumni.

"I am astounded at the variety, depth and amazing quality of the U of T surgical department reflected in the Surgical Spotlight!"

Dr. Michael Harrison

Dr. Michael Harrison provided the following anecdotes about Dr. W.E. Gallie, who retired in 1947:

"Ted Dewar, late Professor of Orthopaedics at U of T and Toronto General related that Dr. Gallie's famous joie de vivre became somewhat subdued when confronted by his own spinal x-ray changes of aging spondylosis. But I recall his eventual rebound to high spirits, all the while wearing the extended Harris brace that clearly distorted his jacket, with equanimity.

[Dr. Gallie] delivered the charge to our class 4T9 in Convocation Hall. After welcoming us onto the exciting journey that is medicine, with exhortations to be and do our very best, he concluded by saying, "As for me, I'm going fishing. Good luck!"



"Hold on a second, Bob. I'm putting you on a stickie."

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The deadline for the Fall 2004 Surgery Newsletter is August 1, 2004. All members of the Department are invited to submit news items, articles, pictures, ideas or announcements. You may reach us at

*voice mail: 416-978-8177, fax: 416-978-3928 or
e-mail: jean.defazio@utoronto.ca*

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

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