

ANESTHESIA

2011-12







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CHAIR'S INTRODUCTION

DR. BRIAN KAVANAGH

I'm delighted —and very proud— to introduce the 2011-12 Annual Report of the Department of Anesthesia at the University of Toronto. The report details the activities and accomplishments of over 350 faculty from 6 fully affiliated and 11 community affiliated hospitals.

In our department we provide a clinical-educational environment where more than 100 residents and fellows learn —and perfect— the skills necessary to practice, using expert tuition, supervised experience and simulation. Beyond initial training, we manage 15 courses for our colleagues in practice, focusing on continuing medical education and professional development. Our researchers cover almost all aspects of enquiry related to anesthesia. critical care, and pain medicine - in many cases leading the world in the discovery of molecular mechanisms of anesthesia, perioperative epidemiology, cardiovascular intervention, ambulatory anesthesia and sophisticated regional techniques. Especially notable is the development of a new focus: Sleep and Anesthesia, which this year has generated a new international professional society and has prompted a major collaborative initiative in the Faculty of Medicine, in concert with the departments of medicine and physiology.

Leadership is immensely important in the department. Our executive, comprising the anesthetists-in-chief from the fully-affiliated hospitals in addition to the vice-chairs responsible for research, education and clinical practice, is assisted by a highly organized university office base, managed by Dr Craig Daniels. We have recruited into important leadership positions in the last year, including two anesthetists-in-chief, Dr John Laffey (St Michael's hospital) and Dr. Sue Belo (Sunnybrook Health Sciences Centre). In addition, our engagement in critical care medicine —a downward trend world-wide— remains strong with three of our professors of anesthesia leading departments of critical care in Sunnybrook Health Sciences Centre (Dr Brian Cuthbertson), St Michael's Hospital (Dr Andrew Baker), and the Hospital for Sick Children (Dr Peter Laussen).



WE'RE VERY PROUD OF THE SUCCESS OF OUR EDUCATORS AND OUR SCIENTISTS

We're particularly pleased with the calibre of our trainees: we are fortunate to attract increasingly talented residents and fellows, many of whom will develop careers allowing them to make important contributions in education or research, and all of whom have the opportunity to become first-rate clinicians.

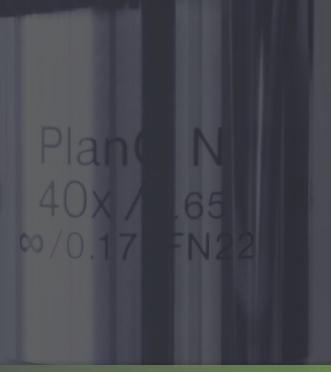
Our faculty provide world-class care to over 100,000 patients each year. While we're very proud of the success of our educators and our scientists in terms of funding and publications, were particularly gratified for the insights they've discovered.

This report is a frank illustration of the accomplishments of our faculty, the advances we have made to our profession and most important, the contributions we provide to the health of our patients.

Please read it — we'd value your feedback.

Sincerely,

BRIAN KAVANAGH
PROFESSOR AND CHAIR



OUR VISION

The provision of safe and innovative anesthetic, analgesic, perioperative and critical illness management for our patients.

OUR MISSION

The delivery and promotion of preeminent perioperative patient care through continued vigilance, innovation, and scholarship.

OUR VALUES

Our values are the principles by which we guide our mission and reflect the values articulated by our university faculty and our core clinical institutions. We cherish the following values:

- Integrity;
- Commitment to innovation and excellence;
- Life-long learning and critical inquiry;
- Diversity and social justice;
- Partnership with our health science centers;
- Collaboration among disciplines, professions, and in our community:
- Support and collegiality;
- · Accountability; and,
- Responsiveness to those whom we serve

ANESTHESIA LEADERSHIP

OFFICE OF THE CHAIR AND EXECUTIVE

Dr. Brian Kavanagh Chair

Dr. Gerald O'Leary

Dr. David McKnight

Vice Chair, Clinical Practice

Vice Chair, Education

Vice Chair, Research

Dr. Craig Daniels

Business Manager

Dr. Mark Crawford The Hospital for Sick Children

Dr. Gil Faclier (Dec 31, 2011)

Sunnybrook Health Sciences Centre

Dr. Sue Belo (Jan 1, 2012)

Sunnybrook Health Sciences Centre

Dr. Patricia Houston (Mar 31, 2012)

Dr. John Laffey (Apr 1, 2012)

St. Michael's Hospital

St. Michael's Hospital

Women's College Hospital

Dr. Gerald O'Leary University Health Network (TGH, TWH, Mount Sinai Hospital)

UNDERGRADUATE EDUCATION PROGRAMS

Dr. Isabella Devito Director

Dr. James Robertson Electives Coordinator
Dr. Clyde Matava Electives Coordinator
Dr. Darryl Irwin Preclerkship Coordinator
Dr. Diana Tamir Preclerkship Coordinator
Dr. Anita Sarmah Simulation Coordinator

Dr. Ryan Mai OSCE Committee Representative
Dr. Marjan Jariani OSCE Committee Representative

Mr. Gary Cronin Program Assistant

SITE COORDINATORS

Dr. Lisa Bahrey
UHN (Toronto General Hospital)
Dr. Marjan Jariani
UHN (Toronto General Hospital)
Dr. Diana Tamir
UHN (Toronto General Hospital)
Dr. Vinod Chinnappa
Women's College Hospital
Dr. Darryl Irwin
Mount Sinai Hospital
Mount Sinai Hospital

Dr. Carol Loffelmann

Dr. Ahtsham Niazi

Dr. Anita Sarmah

St. Michael's Hospital

UHN (Toronto Western Hospital)

Sunnybrook Health Sciences Centre

Dr. Patrick Mark

Toronto East General Hospital

Dr. Clyde Matava

The Hospital for Sick Children

Dr. Christopher Flynn Credit Valley Hopsital
Dr. Suzanne Lilker St. Joseph's Health Centre
Dr. Hossam El Beheiry Trillium Health Centre

Dr. Larry Panos The Scarborough Hospital- General Division
Dr. Alan Tallmeister The Scarborough Hospital- Birchmount

POSTGRADUATE EDUCATION PROGRAMS

Dr. Mark Levine Director

Dr. Henderson Lee Director, Family Practice Anesthesia Dr. Megan Hayter Anesthesia Simulator Coordinator

Dr. Beverly Morningstar Resident Counselor Vice Chair Education Dr. David McKnight Dr. David Mazer Vice Chair Research Ms. Jennifer Morris Program Assistant

SITE COORDINATORS

Dr. Deven Chandra St. Michael's Hospital

Dr. Lisa Bahrey **UHN** (Toronto General Hospital) Dr. Martin Ma **UHN** (Toronto General Hospital)

Dr. Howard Fischer Mount Sinai Hospital

Dr. Marianne Graham Sunnybrook Health Sciences Centre

Dr. Kamal Hussain Women's College Hospital Dr. Arun Prasad Women's College Hospital/TWH Dr. Vaibhav Kamble Toronto East General Hospital Dr. Henderson Lee Family Practice Anesthesia Program Dr. Sunita Sastry UHN (Toronto Western Hospital)

Dr. Elaine Ng Hospital for Sick Children

FELLOWSHIP EDUCATION PROGRAMS

Dr. Doreen Yee Director, Fellowship Programs

Ms. Jennifer Morris Program Assistant

SITE COORDINATORS

Dr. Jose Carvalho Mount Sinai Hospital (Obstetric Anesthesia)

Dr. Stephen Halpern Women's College Hospital Dr. Jane Heggie **UHN** (Toronto General Hospital) Dr. Paul McHardy Sunnybrook Health Sciences Centre

Dr. Andrea Rigamonti St. Michael's Hospital

Dr. Atul Prabhu UHN (Toronto Western Hospital) Dr. Ki Jinn Chin UHN (Toronto Western Hospital)

Dr. Gail Wong Hospital for Sick Children Dr. Aliya Salman Mount Sinai Hospital

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT

Dr. Peter Slinger Chair

Dr. Zeev Friedman Chair, Annual Shields Research Day 2012 Dr. Martin van der Vyver Chair, Faculty Development Day 2011

DEPARTMENT COMMITTEES

EXECUTIVE COMMITTEE	B. Kavanagh (Chair), S Belo (Jan 1, 2012), M. Crawford, C. Daniels (Secretary), G. Faclier (Dec 31, 2011), P. Houston (Mar 31, 2012), J. Kronberg (May 2012), J. Laffey (Apr 1, 2012), D. Mazer, G. O'Leary.
EDUCATION COUNCIL	D. McKnight (Chair), I. Devito, B. Kavanagh, M. Levine, J. Morris (Secretary), P. Slinger, M. van der Vyver, D. Yee.
DEPARTMENTAL APPOINTMENTS COMMITTEE	B. Macpherson (Chair), C. Daniels (Secretary), S. Halpern, M. O'Driscoll, A. Perlas, J. Wassermann.
PROMOTIONS COMMITTEE	P. Morgan (Chair), S. Beattie, R. Brull, V. Chan, F. Chung, C. Daniels (Secretary), P. Houston, J. Katz, B. Kavanagh (ex-officio), D. Mazer, C. McCartney, B. Orser.
UNDERGRADUATE EDUCATION COMMITTEE	I. Devito (Chair), L. Bahrey, V. Chinnappa, M. Choi, G. Cronin (Secretary), H. El Beheiry, C. Flynn, K. Grewal, D. Irwin, M. Jariani, M. Joshi, B. Kavanagh, S. Lilker, C. Loffelmann, P. Mark, C. Matava, D. McKnight, A. Niazi, L. Panos, J. Robertson, A. Sarmah, E. Sui, A. Tallmeister, D. Tamir, D. Thakrar.
POSTGRADUATE EDUCATION	M. Levine (Chair), D. Chandra, K. Dattilo, M. Davallou, H. Fischer, M. Graham, S. Halpern, V. Kamble, B. Kavanagh, J. Khan, D. Mazer, D. McKnight, B. Morningstar, J. Morris (Secretary), E. Ng, C. Perkes, S. Sastry, N. Soneji, S. Srikandararajah, Z. Unger, C. Wong.
FELLOWSHIP EDUCATION	D. Yee (Chair), J. Carvalho, S. Halpern, J. Heggie, P. McHardy, M. McLoone, J. Morris (Secretary), A. Prabhu, A. Salman, G. Wong, E. You-Ten.
CONTINUING EDUCATION/ PROFESSIONAL DEVELOPMENT	P. Slinger (Chair), P. Angle, S. Davies, L. Eisen, M. Friedlander, P. Houston, L. Isaac, B. Kavanagh, J. Kay, C. Knapp, A. Rigamonti, J. Tarshis, L. Venkatraghavan, M. van der Vyver.
RESEARCH COMMITTEE	D. Mazer (Chair), A. Baker, S. Beattie, M. Crawford, Z. Friedman, S. Halpern, S. Kapoor, B. Kavanagh, M. Levine, A. MacArthur, D. McKnight, B. Orser, G. Petroz, D. Yee.
SHIELDS DAY 2011 PLANNING COMMITTEE	Z. Friedman (Chair), G. Cronin, C. Daniels, B. Kavanagh, J. Morris.
FACULTY DEVELOPMENT DAY 2011 PLANNING	M. van der Vyver (Chair), G. Cronin, C. Daniels, B. Kavanagh, C. Matava, J. Morris, S Riazi.

FACULTY AND AFFILIATED HOSPITALS

The University of Toronto and thus, the Department of Anesthesia, has full affiliation agreements with seven Toronto-area hospitals. We have more than 260 full-time faculty members at the following hospitals (please see our website at **anesthesia.utoronto.ca** for a full list of our faculty members, including biographical information):

- Mount Sinai Hospital
- St. Michael's Hospital
- Sunnybrook Health Sciences Centre
- The Hospital for Sick Children

- University Health Network (includes Toronto General Hospital and Toronto Western Hospital)
- Women's College Hospital

We are proud to have built strong relationships with several community-affiliated hospitals. Our clerks and residents participate in educational programs at these hospitals, and we have more than 100 part-time faculty members. Our community affiliates include:

- Credit Valley Hospital
- Humber River Regional Hospital
- · Lakeridge Health
- · Markham-Stouffville Hospital
- North York General Hospital
- Royal Victoria Hospital (Barrie)

- The Scarborough Hospital
- Southlake Regional Health Centre
- St. Joseph's Health Centre (Toronto)
- · Toronto East General Hospital
- · Trillium Health Centre

STRATEGIC PLAN 2009-2014 PROGRESS

IN 2011-2012, THE UT DEPARTMENT MADE FURTHER ADVANCES WITH THE IMPLEMENTATION OF THE STRATEGIC PRIORITIES OUTLINED IN OUR STRATEGIC PLAN (SEE **ANESTHESIA.UTORONTO.CA/ABOUT/STRATEGY.HTM** FOR THE COMPLETE PLAN). WE HAVE MADE SIGNIFICANT PROGRESS IN THE IMPLEMENTATION OF THE PRIORITIES, WHICH INCLUDE:

PRIORITY 1: ADVANCEMENT, ADVOCACY AND ALUMNI PROGRAMS

The Department of Anesthesia Alumni Association previously developed and implemented an alumni database and email listserve which includes contact information for more than a thousand of our alumnus across Canada. A communications program has been implemented, and our alumni receive information such as our strategic plan, annual report, and invitations to major events and lectures.

Dr. Stephen Brown, President of the UT Anesthesia Alumni Association and the Alumni Committee (Dr. Doreen Yee, Dr. Charles Knapp, Dr. John Hanlon, Dr. Ann Grise and Dr. Richard Ahn) have been very active. An Alumni Association sponsored event was held in October 2011 to recognize the long service of faculty members and to celebrate the UT Department of Anesthesia's 60th Anniversary. An Alumni Reunion was held in June 2012 at the Canadian Anesthesiologists Society meeting in Quebec. We plan to hold another at the Calgary CAS Annual General Meeting in June 2013 and a faculty Recognition Event in October 2013.

Our advancement campaign is underway, and the Alumni Committee developed and ran an Alumni Survey, the results of which have been analysed and we have begun implementation of the suggested strategic initiatives. Further details can be found in the report by Dr. Stephen Brown.

PRIORITY 2: ACADEMIC PRODUCTIVITY - MEASUREMENT AND ACCOUNTABILITY

Initially a Task Force – led by Drs. Mark Crawford (Anesthesiologist-in-Chief, The Hospital for Sick Children) and Gerald O'Leary (Anesthesiologist-in-Chief, UHN-MSH) was struck and a project charter, project plan and key deliverables were developed in consultation with representatives from the local teaching hospitals and Business Managers from the practice plans.

However in 2011 the continued development and implementation of this priority was taken on more broadly by the Faculty of Medicine. Over the last year the Faculty of Medicine through Discovery Commons have developed, trialed and implemented the WebCV format for faculty CV's. The application of this format (coming to the Department of Anesthesia in late 2012) will essentially create an online database to collect data on teaching and research activities including the metrics to measure performance. The goal has been to develop a streamlined, simplified yet comprehensive report format that can be adopted across all of the hospital sites.

PRIORITY 3: FACILITATING FDUCATORS

Under the leadership of Dr. David McKnight, Vice Chair Education, and the Education Council – comprised of the Directors of our education programs and the departmental Chair – the goals of this strategic priority are now well underway.

Dr. Martin van der Vyver, Director of Faculty Development Programs, has continued with the organization of our annual Faculty Development Day which was held on November 11, 2011 – more than 100 of our faculty and fellows attended this event. Further details on the event are available in the report from Dr. Martin van der Vyver. The growth and further development of this important event has been a key priority and its continued success has made Faculty Development Day an important regular feature of our annual program.

Additional awards to recognize outstanding teaching contributions were also created, both in the university departments and the hospitals. These include the Inter-professional Teaching Award, the New Faculty Teaching Excellence Award and the award for Best Oral Presentation at the annual Faculty Development Day event.

A plan to better integrate our faculty in the affiliated community hospitals is also underway. We have created the "Council of Community Chiefs", and have begun to extend our faculty development programs to the community sites. An event is planned for our faculty at the Mississauga sites in September 2012 with a follow-up event in 2013.



PRIORITY 4: FACILITATING LEARNERS

Global Health Issues and Social Responsibility in Anesthesia

In 2011-2012, we continued to concentrate on the development of a global health and social responsibility program in anesthesia. Dr. Greg Silverman was selected to drive this initiative and he has been working closely with Dr. Alison Macarthur to make significant headway in the implementation of the Toronto Addis Ababa Academic Collaboration (TAAAC). The University of Toronto, Department of Anesthesia is responsible for organizing 3 separate month-long teaching missions to Addis Ababa University (AAU) in Ethiopia. The purpose of these trips is to provide ongoing educational support to the anesthesia faculty at AAU who are responsible for delivering both undergraduate and postgraduate teaching. This initiative is going a long way toward realising our objective to "Initiate educational programs to train anesthesiologists and relevant allied health professionals overseas with an aim of establishing self-sustaining educational systems."

PRIORITY 5: RESEARCH

Our competitive, peer-reviewed Merit Awards program to fund time through the practice plans for our researchers and educators to conduct academic activities has been the cornerstone of this priority since 2009. The goal is to facilitate world-class research that has both translational and global impact. Our success in this area is outlined in the report provided by Dr. David Mazer, Vice Chair of Research.

In addition, we also held an Interim Merit Award competition in the spring on 2012. The recipients of all merit awards are listed below and our third biennial competition will be held in early 2013.

We will also be implementing two major new, competitive, one-time-only competitions, "Multicentre Inter-Hospital Clinical Trials Grant" and "Translational Research Grant" later in 2012. These competitions were developed in order to provide seed funding for a major clinical trial or translational research led by full-time faculty members in our department. The goal of the awards is to support high-impact, world-class research projects that will attract additional, substantial, peer-reviewed operating grant funding.

RECOGNITION OF EXCELLENCE: HONORS, AWARDS, CHAIRS AND PROMOTIONS

The following University department awards were presented at the 33rd Annual Shields Research Day 2012:

- The Dr. R.J. Byrick Award recognizes the best fellow's research paper presented at the Annual Shields Research Day: **Grant Stuart** (Fellow, The Hospital for Sick Children)
- The Dr. A.C. Bryan Award is awarded to a graduate student judged to have presented the best research project at the Annual Shields Research Day: Irene Lecker (Research Student, UHN-Toronto Western Hospital)
- The Dr. Hynek Rothbart Award for the best paper presented by a Resident at the Annual Shields Research Day: Mark McVey (Resident, PGY 3)
- The Thomas Donald Hammell Memorial Award in Anesthesia, is awarded in recognition of outstanding contributions to the Residency Program, as chosen by other residents: **Warren Luksun** (Resident, PGY 5)
- The UT David Bevan Best Shields Day Poster Award: Patrick Wong (Fellow, Mount Sinai Hospital)
- The Dr. Evelyn Bateman Award is awarded in recognition of excellence in anesthesia at the undergraduate level: Maria-Alexandra Petre (Medical Student, Peters-Boyd Academy)
- The Award for Clinical Excellence is awarded by the UT Department of Anesthesia to full or part-time faculty members in the department within each of the fully or partially affiliated hospitals and their respective sites who has been judged by the department's faculty, fellows and residents to be an outstanding clinician within the Anesthesia community:
 - Dr. Aliya Salman (Lecturer UHN Mount Sinai Hospital)
 - Dr. Martin Chapman (Assistant Professor Sunnybrook Health Sciences Centre)
 - Dr. Marcus Wong (Lecturer St. Josephs Health Centre)
 - Dr. Martyn Roberts (Assistant Professor UHN Toronto Western Hsopital

The following University department teaching awards were also bestowed in 2011-2012:

- The Dr. John Desmond Award recognizes excellence in clinical teaching of undergraduate students:
 - Dr. Jamie Robertson (Assistant Professor The Hospital for Sick Children)
- The Dr. Gerald Edelist Award is awarded to a faculty member in recognition of excellence as a clinical teacher of residents in anesthesia:
 - Dr. Elaine Ng (Assistant Professor The Hospital for Sick Children)
- The Dr. David Fear Award is awarded for outstanding contributions to continuing medical education and continuing professional development in the Department of Anesthesia:
 - Dr. Philip Peng (Associate Professor UHN Toronto Western Hospital)
- The new Interprofessional Teaching Award recognizes outstanding teaching both within and outside of the anesthesia community: **Dr. Basem Naser Al-Morbara**k (Associate Professor – The Hospital for Sick Children)
- Elected as Fellows of the Canadian Academy of Health Sciences: nominated to the Academy by the University of Toronto, Faculty of Medicine and elected based on their creativity, demonstrated leadership and history of outstanding accomplishments in the academic health sciences in Canada.
 - Dr. Brian Kavanagh Hospital for Sick Children
 - Dr. Beverley Orser Sunnybrook Health Sciences Centre

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The winners of the Laws Travel Fellowship 2011 were Dr.Marco Garavaglia and Dr. Han Kim. Tuition awards for our residents and fellows – to fund graduate level education programs - were also presented to **Drs. Mandeep Singh**, **Teresa Skelton**, **Jane Wang**, **Kristina Khanduja**, **Nam Le**, **Miriam Mottiar**, **Zoe Unger**

Congratulations to UT Anesthesia Department members on their success at the Canadian Anesthesiologists' Society Annual Meeting

Dr Mary Ellen Cooke - Clinical Teacher Award (excellence in the teaching of clinical anesthesia)

In recognition of outstanding commitment and dedication to the teaching of clinical anesthesia and inspiring excellence among Residents and students

Dr Scott Beattie - Research Recognition Award (a senior investigator who has sustained major contributions in anesthesia research in Canada) In recognition of outstanding research in and major contributions to anesthesiology and perioperative medicine

Dr Gregory Hare - Dr Earl Wynands/Fresenius Kabi Research Award

Dr Stephen Choi - Abbott Laboratories New Investigator Award in Anesthesia

Dr Katherine Taylor - Baxter Corporation Canadian Research Award in Anesthesia

Dr Andrea Rigamonti - Canadian Anesthesiologists' Society Research Award

Dr Mrinalini Balki - Richard Knill Competition

Best Paper Winners:

CVT Raymond Martineau Prize: **Tenille Ragoonanan**, Abstract Title: Cardiac complications in post PCI patients undergoing non cardiac surgery

Award for Best Paper in Obstetric Anesthesia: **Caitriona Murphy**, Abstract Title: Ultra-low compared to higher concentration epidural local anesthetic solutions in labor: a meta-analysis

Award for Best Paper in Education and Simulation in Anesthesia: **Fahad Alam**, Abstract Title: Using novel podcast technology to enhance knowledge acquisition

Award for Best Paper in Regional Anesthesia and Acute Pain: **Naveed Siddiqui**, Abstract Title: Hand washing technique for epidurals-effect on reduction of contamination risk

Ian White Patient Safety Award: **Limei Zhou**, Abstract Title: Parameters from preoperative nocturnal oximeter predicting postoperative complications

Also of note:

David and Joan Bevan - elected as Emeritus members of the CAS

Martin Kim (fellow at SMH) - best TEE case presentation

All 6 finalists in the Richard Knill Competition were from the University of Toronto:

C. David Mazer, Marcin Wasowicz, Tania Bailey, Kristina Khanduja, Mrinalini Balki and Limei Zhou

DEPARTMENTAL MERIT AWARDS: 2011-2013 CYCLE

The following individuals have received competitive peer-reviewed merit awards through the UT Department of Anesthesia for the period 2011-2013. The next competition will be held in early 2013.

RESEARCH MERIT AWARDS:

RECIPIENT	HOSPITAL	PROJECT TITLE	Award Value/ Annum
Duminda Wijeysundera*	UHN-Toronto General Hospital	Evaluating preoperative anesthesia care in Ontario at a population-based level	\$80,000
Mrinalini Balki	UHN - Mount Sinai Hospital	Optimizing human myometrial contractility using a combination of uterotonic agents	\$40,000
Eric You-Ten	UHN - Mount Sinai Hospital	Simulation-Based Training on Effective Performance In In-Situ Simulation (STEPS)	\$40,000
David Mazer	St. Michaels Hospital	Improving Outcomes in Cardiac Surgery: Strategies to reduce tissue hypoxia	\$40,000
Gregory Hare	St. Michaels Hospital	Adaptive cellular mechanisms to maintain oxygen homeostasis and promote survival during anemia	\$40,000
Julia Voigtlaender-Bolz	St. Michaels Hospital	Personalized Microvascular Medicine	\$40,000
Andrew Baker	St. Michaels Hospital	The role of endothelial profenitor cells in brain injury repair	\$40,000
Andrea Rigamonti	St. Michaels Hospital	Improving Outcomes in Neurosurgical and Neurocritical Patients	\$40,000
Brian Cuthbertson	Sunnybrook Health Sciences Centre	Measurement of Exercise Tolerance before Surgery (METS) Study: A Multicentre Prospective Study	\$40,000
Colin McCartney	Sunnybrook Health Sciences Centre	Is there any benefit to adding continuous femoral block to local infiltration analgesia for TKA?	\$40,000
Elod Szabo	The Hospital for Sick Children	Mechanism of voltage-gated Na channel-related cardiomyopathy	\$40,000
Gail Wong	The Hospital for Sick Children	Efficacy of L-carnitine in the prevention and treatment of bupivacaine cardiotoxicity in rats	\$40,000
Keyvan Karkouti	Toronto General Hospital	Advance Targeted Transfusion in Anemic Cardiac Surgical Patients for Kidney Protection	\$40,000
Marcin Wasowicz	Toronto General Hospital	Expanding an anesthesiologist's role beyond an operating room	\$40,000
Joseph Fisher	Toronto General Hospital	Translation of new non-invasive monitoring techniques from the bench to the bedside	\$40,000
Scott Beattie	Toronto General Hospital	Clinical decision support reduces serious intra operative hypotension	\$40,000
George Djaiani	Toronto General Hospital	Reducing Delirium After Trans-Apical Aortic Valve Implantation: A Multifaceted Approach Of Periopera	\$40,000
Hance Clarke	Toronto General Hospital	Phenomics & Genomics of Clinically Relevant Chronic Postsurgical Pain: Multicentre Prospective Study	\$40,000
Anahi Perlas	Toronto Western Hospital	Bedside Ultrasound Assessment of Gastric Volume. Validating a mathematical model using gastroscopy	\$40,000
Richard Brull	Toronto Western Hospital	Effect of General vs Regional Anesthesia on Sleep Disordered Breathing in Obstructive Sleep Apnea	\$40,000
Jean Wong	Toronto Western Hospital	Genetic basis of interindividual differences in acute postoperative pain	\$40,000
Pam Morgan	Women's College Hospital	1. Paravertebral Blocks for Breast Cancer Surgery 2. Quality of recovery Following TRAM flap surgery	\$40,000

EDUCATION AND CPA MERIT AWARDS:

RECIPIENT	HOSPITAL	PROJECT TITLE	AWARD VALUE/ ANNUM
Megan Hayter	St. Michaels Hospital	Simulation Based Inter-Professional Health Care Education: the Effect of Mental Practice	\$40,000
Katherine Taylor	The Hospital for Sick Children	Clarity in Critical Moments- Audio Recorded Resuscitation	\$40,000
Greg Silverman	Mount Sinai Hospital	Anesthesia and Global Health: A Curriculum for Anesthesia in Austere Environments	\$20,000
Zeev Friedman	Mount Sinai Hospital	Challenging Authority in a Crisis Situation: A multi-centre simulation study assessing residents' ability	\$20,000
Eric You-Ten	Mount Sinai Hospital	Development and Integration of An Airway Education Module in the Anesthesia Residency Program	\$20,000
Gail Wong	The Hospital for Sick Children	Development of a national Fellowship Curriculum in Paediatric Anesthesia	\$20,000
Ludwik Fedorko	UHN- Toronto General Hospital	Automated process for controlled substance reconciliation and early detection of narcotic diversion	\$20,000
Sheila Riazi	UHN-Toronto Western Hospital	Advancing the knowledge and understanding of Malignant Hyperthermia (MH)	\$20,000
Ki Jinn Chin	UHN-Toronto Western Hospital	Can novices effectively use ultrasound to facilitate the performance of spinal anesthesia?	\$20,000

RESEARCH CLINICAL TRIALS

In early 2011 The University Department of Anesthesia held a one-time competition for a major new award to support clinical trials within the University of Toronto, Department of Anesthesia. This competitive award will provide seed funding for a major multicentre inter-hospital clinical trial led by a full-time faculty member in the Department of Anesthesia, University of Toronto. The goal is to support high impact, world-class research that will attract additional, substantial peer-reviewed operating funds.

The winner of this award was:

RECIPIENT	HOSPITAL	PROJECT TITLE	Award Value/ Annum
Keyvan Karkouti	UHN-Toronto General Hospital	Advance Targeted Transfusion in Anemic Cardiac Surgical Patients for Kidney Protection (ATTACK): A Multicentre Randomized Trial	\$100,000

NEW INVESTIGATORS MERIT AWARDS: 2012-2013

During the spring of 2012, the university department ran a special, one-time-only competition to fund the research activities of our new faculty investigators (defined as a full-time UT academic appointed after February 28, 2011). The recipients of these awards include:

RECIPIENT	HOSPITAL	PROJECT TITLE	AWARD VALUE/ ANNUM
Stephen Choi	Sunnybrook Health Sciences Centre	Optimizing Pain and Rehabilitation after Knee Arthroplasty (OPRA) – a multicenter randomized trial	\$20,000
John Laffey	St. Michael's Hospital	Optimising the therapeutic potential of human Mesechymal Stem Cells for Ventilator Induced Lung Injury	\$40,000
Clyde Matava	The Hospital for Sick Children	Developing and Validating Anesthesia Clerkship Blended e-Learning Modules	\$20,000
Jason Maynes	The Hospital for Sick Children	Adverse Mitochondrial Effects of Anaesthetic Agents	\$40,000

ADDITIONAL AWARDS AND HONORS

Finally, we are pleased to report the following honors and awards, received by our faculty members in 2011-2012:

Simon Abrahamson

 Frank Rutledge Award of Excellence for Critical Care Teaching in Canada, 2011

Pam Angle

 Elected Overseas Fellow with Distinction, Royal Society of Medicine, UK, Department of Anesthesia, 2010

Andrew Baker

 Queen Elizabeth II Diamond Jubilee Medal. 60th Anniversary of Her Majesty's Accession to the Throne, Ottawa. March 2012

Mrinalini Balki

- The Zuspan Award for Best Paper originated from the collaboration between Obstetric Anesthesia and Obstetrics.
 44th Society for Obstetric Anesthesia and Perinatology Annual Meeting. Monterey, California, May 2012
- Richard Knill Competition Award. Canadian Anesthesiologists' Society Annual Meeting, Quebec City, Quebec, June 2012

Scott Beattie

 R. Fraser Elliott Chair in Cardiac Anesthesia. University Health Network and the University of Toronto, 2010-2015 (2nd term)

Richard Bowry

 National 3M Healthcare Quality Team Award. Programs and Process in an Acute Care Hospital Environment.
 Inspiring Improvement: Working Together for Timely,
 Quality Patient Care. Canadian College of Health Leaders.
 National Healthcare Leadership Conference, Whistler,
 British Columbia, 2011

Robert Byrick

 John Wade Visiting Professor in Patient Safety and Simulation-based Medical Education, Royal College of Physicians and Surgeons of Canada.

Fiona Campbell

 President's Circle, The Hospital for Sick Children. The Presidents Circle award recognizes demonstrating superior leadership and collaboration.

Jose Carvalho

- The Albert Van Steenberge Memorial Lecturer, at the Annual Meeting of the Belgium Association for Regional Anesthesia, Brussels, Belgium, October 2011
- The Dr. John Bradley Award for Excellence in Teaching, UHN-MSH Department of Anesthesia and Pain Management, 2011-2012

Vincent Chan

 Fellowship by Election, The Royal College of Anaesthetists (FRCA), London, United Kingdom, November 2011

Stephen Choi

- Outstanding new clinical teacher award, Department of Anesthesia, Sunnybrook Health Sciences, December 2011
- Abbott Laboratories New Investigator Award in Anesthesia.
 Canadian Anesthesia Research Foundation, CAS, April 2012

Frances Chung

 Chinese American Society of Anesthesiologists Honourary Member, June 2012

Hance Clarke

 Canadian Pain Society, Clinical Pain Management Fellowship Award. February 2012

Mary Ellen Cooke

 Canadian Anesthesiologists' Society Clinical Teacher Award 2012

Richard Cooper

• Verathon Medical, Golden GlideScope Award recognizing contributions to airway management.

Edgar Hockmann

 Sunnybrook Department of Anesthesia, Dr. Rob Mackenzie Teaching Award, Best clinical teacher in the Sunnybrook Department of Anesthesia, December, 2011

Jane Heggie

 Wightman Berris Academy, Individual Postgraduate (Fellows) Teaching Award recognizing excellence in teaching. 2012.

Alex Jadad

- Honorary Fellow, School of Clinical Sciences & Community Health, University of Edinburgh. April 2011
- Pioneer for Change Award, from Skills for Change, as one of five extraordinary Canadians born abroad who have contributed to building a strong and diverse nation, June 2012

Cengiz Karsli

 The Dr. Robert Creighton Award for Excellence in Resident Clinical Teaching. January – July 2011, The Hospital for Sick Children, Department of Anesthesia and Pain Medicine

Joel Katz

- Faculty Teaching Award, Faculty of Graduate Studies,
 York University, in recognition of distinguished contribution to the advancement of academic excellence and to the quality of graduate studies at York University, 2011
- Faculty Recognition Award, Department of Anesthesia Alumni Association, Faculty of Medicine, University of Toronto, in recognition of dedicated service to the University of Toronto, Department of Anesthesia, 2011

Brian Kavanagh

- Desmond Bohn Researcher of the year award, Hospital of Sick Children, 2011
- Canadian Academy of Health Sciences, Fellowship, 2012
- Elected to Association of University of Anesthesiologists, 2012

Martin Ma

- UHN-MSH Department of Anesthesia and Pain Management Teaching Award 2011-2012
- The Dr. David Bevan Award for Excellence in Inter-Professional Education

Clyde Matava

 Robert Creighton Award for Excellence in Resident Teaching, Dept of Anesthesia, Faculty of Medicine,
 Department of Anesthesia and Pain Medicine, The Hospital for Sick Children, 2012

Jason Maynes

 Invited Visiting Research Scientist, University of Toronto Faculty of Dentistry, Feb 2012

Colin McCartney

- 2011 Exceptional Contribution to Peer Review, British Journal of Anaesthesia (one of 9 reviewers to be awarded this honour in 2011)
- 2011 Regional Anesthesia Teacher of the Year Award, Sunnybrook HSC

Paul McHardy

 2011 Regional Anaesthesia Teaching Award, Holland Orthopaedic and Arthritic Centre

David McKnight

 2012 Charles Mickle Fellowship, U of T Postgraduate Medical Education

Karen McRae

 UHN-MSH Department of Anesthesia and Pain Management Teaching Award for Postgraduate Teaching, 2011-2012

Elaine Ng

 Dr. Gerald Edelist award, Department of Anesthesia, University of Toronto, November 2011

Ahtsham Niazi

- UHN-MSH Department of Anesthesia and Pain Management Teaching Award, 2011-2012 Undergraduate Teaching Award
- People's Choice Award for Best Presentation, Faculty Development Day, University of Toronto, November 2011

Beverley Orser

- Elected Fellow, Canadian Academy of Health Science 2012
- 2011 Royal College Lecturer: Canadian Anesthesiologists' Society 2011
- World Anesthesia Day Lecturer: University of Western Ontario, London, Ontario, Canada 2011

Philip Peng

 Dr. David Fear for Excellence in Continuing Medical Education Award, Department of Anesthesia, University of Toronto, November 2011

Anahi Perlas

David Bevan Award for Best Poster Presentation, Department of Anesthesia, University of Toronto Shields Day, 2012

Martyn Roberts

 University of Toronto, Department of Anesthesia Clinical Excellence Award 2012

Andrew Roscoe

 Wightman Berris Academy, Individual Postgraduate (Fellows) Teaching Award recognizing excellence in teaching, 2012

Joshua Rucker

 Karen McGibbon Award of Excellence-Seymour Schulich Honorarium

Aliya Salman

Clinical Excellence Award Received on Shield's Day 2012

Naveed Tahir Siddiqui

- Best Paper in Regional Anesthesia and Acute Pain. Canadian Anesthesiologists' Society Annual Meeting, June 2012
- Fellowship Teaching Award, MSH/UHN Department of Anesthesia and Pain Management, 2011

Peter Slinger

• Honorary Professor, China-Japan Friendship Hospital, Beijing, China, 2012

Martin van der Vyver:

Helen P. Batty award for Innovation in Program
 Development and Design, awarded by the Faculty of Medicine, University of Toronto, May 2012

Lakshmikumar Venkatraghavan

 UHN-MSH Department of Anesthesia and Pain Management Teaching Award. Continuing Medical Educational Development Award, 2011

FACULTY PROMOTIONS AND RECOGNITION

ACADEMIC PROMOTIONS: JULY 2011

We are very pleased to announce the following academic promotions, effective July 1, 2011:

To the rank of Full Professor:

• Dr. Laurence Roy - The Hospital for Sick Children

To the rank of **Associate Professor**:

- Dr. Sue Belo Sunnybrook Health Sciences Centre
- Dr. Rita Katznelson UHN-Toronto General Hospital
- Dr. Matt Kurrek Scarborough Hospital
- Dr. Jordan Tarshis Sunnybrook Health Sciences Centre

To the rank of Assistant Professor:

• Dr. Carol Loffelmann - St. Michael's Hospital



ENHANCING CLINICAL PRACTICE

REPORT FROM DR. GERALD O'LEARY | VICE CHAIR CLINICAL PRACTICE

I suspect most anesthesiologists rarely consider nonlinear dynamics (chaos theory) in their work life and yet its applications are diverse from predicting weather conditions, traffic patterns, stockmarket fluctuations and medicine. Chaos theory is a branch of mathematics that studies the behavior of dynamic systems that are sensitive to initial conditions. This came to the fore during the last century because while apples continued to fall down from trees (proportional to the mass of the apple and earth) Newton's 300 year old laws did not work in everyday non linear models. But to move a mathematical curiosity into reality it took the evolution of computers and their superhuman ability to perform repetitive calculations. When applied to predict long term weather conditions it was found that trivial changes in initial conditions, due to 6 point decimal rounding up error in data entry, produced widely divergent results as nicely summarized in Lorenz's 1972 guirkily titled paper "Predictability; Does the flap of a butterfly wings in Brazil set off a tornado in Texas?" This paper lead to the popularization of the term "butterfly effect" to describe this sensitivity to initial conditions and is one of the reasons why weather is usually only reported about a week ahead.

Similarly in anesthesia we know every patient is an individual and that it is impossible to administer drug doses in a formulaic fashion and expect the same results. Yet we are frequently asked for a cocktail that others can apply to achieve a similar result. Part of our skill set is being able to seamlessly recognize the initial unique situation and titrate our care to the patients' response and evolving conditions. This is not unique to medicine. Rocket flights to the moon are only on their projected paths 5% of the time, while for commercial airlines this drops to 3%. It is the appropriate response to the information received that allows rockets, airplanes and our patients to reach their home targets safely.

Every parent who has tried to dress several young children in their winter gear recognizes that even within chaos there are patterns. The chaos theory calls these repeating patterns left behind by dynamic changing systems "Fractals." The most famous of these repeating building blocks at every scale is The Mendelbrot Set (and well while looking up online). It is echoed in biological systems such as the branching of the pulmonary bronchiolar or coronary vasculature. Medical clerks can identify some dynamic



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anesthesia fractals, residents find more patterns, while staff find patterns within patterns. The descriptor for this difference in detection may change; fractal experience, pattern recognition, thin slicing, etc. How we transfer knowledge may also (with a lot of poetic licence) be described within the chaos theory by the "response to an attractor," where initial chaotic conditions converge positively and generate very pretty pictures (google "Lorenz attractor"). In contrast as clinical educators, we definitely do not want to fall into the "Julia repellers" camp. While grossly unfair to Gaston Julia, who was one of the grandfathers of the chaos theory in the 1920s, it nevertheless neatly identifies our own personal fractals in how we can positively or negatively deliver care and transfer knowledge.

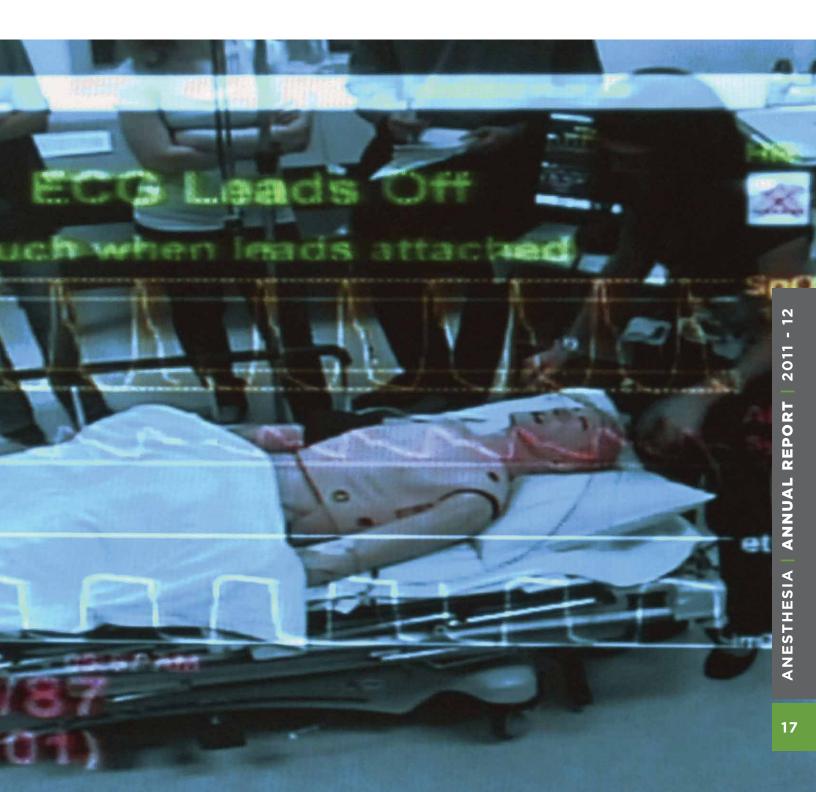
I am a strong advocate for a user friendly anesthesia information management system (AIMS). It changes the way I deliver care for the better by reducing my risk of drug error a thousand fold, and accurately records events allowing me to focus on delivering the best care. I intend for this AIMS application to be used much more widely than just at TGH over the next year. In addition to improving clinical delivery it holds much potential value to our researchers and educators—which brings us almost full circle on the chaos theory.. Simply having a large anesthesia data base of information is merely organized chaos. To recognize perioperative medicine fractals requires clinicians and researchers to generate the correct questions, evaluate the information and with our educators to effect changes in practice. We will now have access to accurate records across the black box continuum of anesthesia care delivery. This allows us to focus on the best delivery of care for each individual patient, while being able to evaluate the impact of our care across subpopulations. The future looks less chaotic.

CLINICAL STATISTICS: FULLY AFFILIATED HOSPITALS

For the period: July 1, 2011 to June 30, 2012

	TGH	TWH	MOUNT SINAI	WOMEN'S COLLEGE	SUNNYBROOK	ST. MICHAEL'S	HOSPITAL FOR SICK CHILDREN	TOTAL - ALL SITES
GENERAL ANESTHETICS:	7826	5996	8881	3021	11500	11525	9582	58331
REGIONAL ANESTHETICS:	1139#	4151	6717	507	2200	1400	32	16146
DELIVERIES:	n/a	n/a	6573	3730*	3990	3095	n/a	17388
EPIDURALS/SPINALS:	n/a	n/a	n/a	6	5790	1700	259	7755
CAESARIAN SECTIONS:	n/a	n/a	2291	1312*	1430	891	n/a	5924
CAESARIAN SECTION RATE:	n/a	n/a	35%	35%*	35%	28.7%	n/a	33.3%
PAIN CLINIC CASES:	n/a	552	n/a	935	1641	2203	756	6087
ACUTE PAIN SERVICE:	3959	2367	2487	n/a	4567	4296	942	18618
ICU BEDS:	53	24	16	0	53	69	38	253

Note: #TGH Regional Anesthetics numbers include Epidurals/spinals. *Women's College obstetrical cases (deliveries) are performed at Sunnybrook Health Sciences Centre.



ANESTHESIA EDUCATION AT U OF T

REPORT FROM DR. DAVID MCKNIGHT | VICE CHAIR EDUCATION

The educational programs of University of Toronto Department of Anesthesia excel because of the commitment of almost three hundred faculty members at fourteen hospital sites. Their dedication to teaching in undergraduate medicine (MD program), postgraduate residency, graduate degree programs (Master's and PhD), continuing education, and faculty development is unwavering and you will read about their accomplishments in these reports. This excellence in teaching has allowed us to continue to attract excellent learners in all of our programs and we continue to be inspired by their intelligence and enthusiasm.

2011–2012 was the second year of the new clinical clerk curriculum, with the core anesthesia rotation in the third year. For the fourth year students a number of popular selectives were developed by members of the Undergraduate Committee led by Dr. Isabel Devito. Our elective and selective programs have contributed to our success in recruiting applicants to the residency program from U of T and other schools. There has been increased involvement of community hospital sites and we have expanded use of videoconferencing for seminars. A number of on-line e-modules have been introduced and we plan to expand their availability in future.

The residency program highlights particular success in resident research. We congratulate the residents and their faculty mentors and supervisors on those achievements. Dr. Mark Levine, Program Director, and the Committee lead continued improvements to the program including simulation, mentorship, and changes to the internal examinations. It is encouraging that continuing interest in the program, shown by large numbers of well qualified applicants, predicts ongoing success of the program and the specialty.



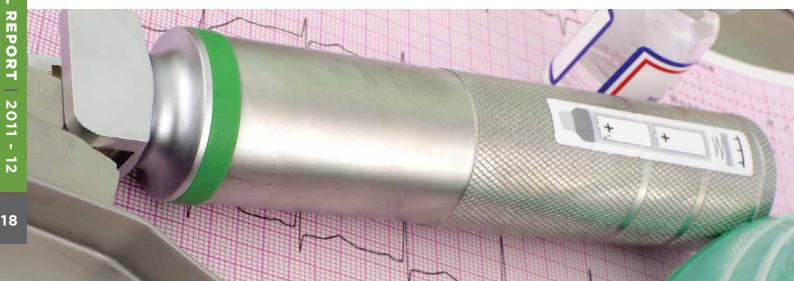
OUR EDUCATION PROGRAMS
ARE JUSTLY RENOWNED
FOR THEIR COMPREHENSIVE
SCOPE AND EXCELLENCE

The central university component of the Fellowship program continues to grow directed by Dr. Doreen Yee. It is gratifying to see the success our fellows have in their research and in finding academic anesthesia positions in Canada and around the world.

The Department offers a multitude of continuing education programs annually, coordinated by the Continuing Education Committee chaired by Dr. Peter Slinger. Dr. Sharon Davies' online anesthesia CE modules continue to grow and have been met with an enthusiastic response. The new bronchoscopy web based simulation should be an excellent learning experience for thoracic anesthesia.

Dr. Martin van der Vyver led a very successful Faculty Development Day with plenary sessions, small group sessions, and presentations and posters of education research.

Our education programs are justly renowned for their comprehensive scope and excellence. We are fortunate at the University of Toronto to have the resources that we do, and the chief resource is the people including bright and enthusiastic learners and the hard-working, accomplished, dedicated faculty members and educational leaders. They are well deserving of thanks and congratulations.



OUR UNDERGRADUATE EDUCATION PROGRAMS

REPORT FROM DR. ISABELLA DEVITO
DIRECTOR
UNDERGRADUATE EDUCATION PROGRAM

In the 2011-12 academic year the Undergraduate program continued its growth and development, focusing on further developing our community partners and preparing to transition to e-learning.

This year was the second year of the new curriculum for third year, but our first experience with the new fourth year curriculum. Our students in fourth year now have electives from September to December and then selectives from January to April. The Department of Anesthesia developed many selectives for our fourth year students. Hospitals participating in this program include, Mount Sinai Hospital, St Michael's Hospital, Sunnybrook, The Hospital for Sick Children and North York General Hospital. These were extremely popular with the fourth year class.

Accreditation review of the medical school occurred during the year. Many hours were spent in preparation for this and our program focused on abiding by all the accreditation standards, including specifically timely release of grades, mid-rotation feedback and ensuring that all students were exposed to the required clinical experiences and procedures. The preliminary report following the review was extremely favourable.

Our community partners have continued to grow with the addition of Credit Valley Hospital (CVH) this academic year. Dr. Chris Flynn has taken on the role of Undergraduate Site Coordinator at CVH. Toronto East General, St. Joseph's Health Centre, The Scarborough Hospital (General & Birchmount sites) and Trillium Health Centre continued taking core rotation students. To provide seminars to our students in community placements we are continuing the use of videoconferencing.

Our rotation continues to be highly evaluated by our students. There were excellent ratings for educational experience, enjoyment of the rotation, and teacher effectiveness.

A major change in our curriculum occurred this year with the initiation of an interactive e-module for simulation day. This module allows for better use of simulation time; in essence a "flipped classroom" where acquisition of knowledge occurs outside of the classroom and time in the classroom is spent reviewing and solidifying this knowledge. The e-module was presented by Dr. Anita Sarmah at the World Congreess of Anesthesiologists. For the next academic year, plans are



THE UG PROGRAM
CONTINUES TO EXPAND
AND DEVELOP AS
WE BECOME MORE
ESTABLISHED WITH OUR
COMMUNITY PARTNERS

in place to convert all seminars to e-modules with a central review of content.

The Toronto anesthesia program was a popular choice for our University of Toronto graduating class, with approximately 10% of the class applying to our program. This class was the first graduating class of the new curriculum, and most notably the year 3 class of our double cohort year. Despite the increased numbers of students, we were able to attract a record number of Toronto students to our program. Our site coordinators and teaching faculty's commitment to our program are reflected in this tremendous achievement. The number of Toronto students applying to our program exceeded the national average.

With the new curriculum centrally and within our own department, there was a need to review our curriculum. Our second formal curriculum retreat was held in May 2012. The committee discussed new e-learning formats and developed a plan for an exit simulation half day and a central review of e-module content.

New changes in roles and responsibilities include Dr Clyde Matava as our Electives Coordinator, taking over from Dr. James Robertson, Dr. Diana Tamir as our Pre-clerkship Coordinator taking over from Dr. Darryl Irwin, and Dr. Marjan Jariani as our iOSCE representative taking over from Dr. Ryan Mai.

As with previous years, our faculty continue their commitment to all years of medicine. They continue to be involved in the selection of the new medical school class with file reviews and interviewing. We continue to have a strong presence in Pre-clerkship with ASCM I and II (Art and Science of Clinical Medicine), DOCH II (Determinants of Community Health), Brain & Behaviour and MMMD (Mechanisms, Manifestations and Management of Disease (MMMD), and in the clerkship and year 4 with the Portfolio program. A large number of our faculty are involved with the iOSCE, including some community members. Many faculty also serve as student mentors.

The Anesthesia Interest group (AIG) continued its popularity under the leadership of Dr. Darryl Irwin. The airway workshop was well attended with requests surpassing available spots. Many of residents were involved in the planning and teaching at the workshop. Our annual student information was well attended.

Our electives continue to be popular, now under the leadership of Dr. Clyde Matava. We continue to host local, national and international electives. With the new curriculum all our University of Toronto electives now occur from September to December of fourth year. Plans are underway to develop a central registration process for local electives.

The next academic year will see the first graduating class for the Mississauga Academy of Medicine (MAM- 2014) complete their clinical clerkship at the Mississauga Campus. Approximately 54 students will rotate between Trillium and Credit Valley Hospital. Faculty development will be a focus for the upcoming year.

Challenges for the next academic year will include the preparation of the Mississauga campus for their increased teaching commitment and forward planning for our "flipped classroom" model.



OUR POSTGRADUATE EDUCATION PROGRAMS

REPORT FROM DR. MARK LEVINE DIRECTOR POSTGRADUATE EDUCATION PROGRAM

The past year was a very productive one for the Postgraduate Program. Resident participation in research and, subsequently, the number of abstracts and peer reviewed papers published by our residents was outstanding. Eighteen abstracts were presented by our residents at the Annual Shields Research day and/or the Canadian Anesthesiologists Annual meeting and an additional three peer reviewed articles were published by our Postgraduate trainees. In addition, Dr. Mark McVey, one of the aforementioned authors, was awarded a PGME Resident Research Award in recognition of the work he presented.

The popularity of the specialty and program continues to grow, as evidenced by the record number of Canadian Medical Graduate and International Medical Graduate applicants. There was also significant growth in the number of applicants from the graduating class at the University of Toronto. We were, therefore, able to attract many excellent applicants to our program.

Ongoing review of the program enabled us to identify opportunities for enhancement of the role of simulation, the introduction of a mentorship program, improvement in the departmental examination process and the modification of duty hours.

A simulation interest group was convened and enhancements to the simulation programs and opportunities for further collaboration were identified. Residents at all stages of training are afforded a number of opportunities to benefit from simulation in education: junior residents participate in an extensive airway management / vascular access program.



NEW MENTORSHIP AND SIMULATION INITIATIVES ARE A HIGHLIGHT OF OUR **GROWING PG PROGRAM**

Anesthesia Crisis Resource Management skill development is the cornerstone of the High Fidelity simulation experience for all levels of trainees. In addition, during the pediatric anesthesia rotation, residents participate in simulation sessions based on the MEPA (Management of Emergencies in Pediatric Anesthesia) program. Furthermore, senior residents develop teaching skills in supervising medical students during their clerkship sessions in the high fidelity simulator.

In recognition of the need for advice and support, particularly with respect to career planning, we introduced a mentorship program in which groups of residents at various stages of training are paired with volunteer faculty mentors from a variety of backgrounds – both academic and community practices. This program also enables senior residents to mentor junior residents within their respective groups.

We have appointed an examination coordinator who is responsible for the administration of departmental oral examinations. We are striving to improve the process so that we can provide residents with an enhanced experience in terms of formative assessment and feedback and simulate the "real examination experience" for senior residents.

Congratulations to all our residents who successfully completed their Royal College Examinations in June, 2012.



RESIDENTS 2011-2012

DOVE		
PGY5 Alakkad, Husni	Alam, Asim	Aleksandrova, Iryna
Cong, Huong	Dave, Shefali	Dupuis, Genevieve
Eskandar, Sherif	Fan-Lun, Amy	Ibrahim, Hesham
Leung, Rico	Luksun, Warren	Lyn, Sheldon
Marseu, Katherine	Meyler, Paula	Predescu, Oana
Randall, Ian	Rao, Anita	Sharma , Saroo
		·
Simitciu, Merita	Singh, Mandeep	Soneji, Neilesh
Treigys, Jurgita	Wong, Catherine	
PGY4		
Alam, Fahad (CIP)	Avramescu, Sinziana	Desai, Minal
Evangelista, Raymond	Fader, Michael	Farsi, Sara
Gamez, Ryan	Ladha, Alim	Lam, Mandy
Lee, Sang	Liu, Peter	Mashari, Azad
Mocon, Aaron	Perkes, Christopher	Pillo, Lisa
Puopolo, Laura	Singer, Oskar	Sivananthan, Praveena
Skelton, Teresa		
PGY3		
Chau, Edmond	Flamer, David	Henry, Paul
Hurlburt, Lindsay	Kerelska, Tina	Khemani, Ekta
Koval, Joseph	Krishna, Arjun	Le, Nam
McVey, Mark (CIP)	Mottiar, Miriam	Orlov, David
Surti, Meera	Tylee, Michael	Unger, Zoe
Waldman, Kyle	Yeung, Alex	
PGY2		
Abrishami, Amir	Al-Mousawy, Zolfakar	Au, Samuel Fook Hang
Bechamp, Robert	Bourgeois, Andre	Ho, Clara
Ho, Melissa Wei-Yee	Jhajj, Prabhjote Singh	Leshchyshyn, Eugene
Lorello, Gianni (CIP)	Mikhael, Rafeek	Mu, Alex
Runkle, Bryn Tyrson	Song, Yuning	Srikandarajah, Sandjho
Wang, Cindy Ruiqing	Wang, Jane Jing	Wong, Simon Wai Lun
Woloszyk, Michael	Zhou, Taylor	
PGY1		
Baig, Ehtesham	Brown Russell	Chbat, Tarek
Cummings, Theresa	Gleicher, Yehoshua	Goldenberg, Neil (CIP)
Goodick, David	Huan, Alexander	Khan, James
Noyahr, Lori-Anne	Peacock, Sharon	Silva, Marcos
Steinberg, Benjamin (CIP)	Sutherland, Ainsley	Talab, Hesham
Thakrar, Dipen	Yau, Brian	

OUR FELLOWSHIP PROGRAMS

REPORT FROM DR. DOREEN YEE | DIRECTOR FELLOWSHIP PROGRAMS

Our numerous fellowship programs continue to be popular internationally. In addition to this, there is a renewed interest amongst our Canadian graduates for fellowship training because the job market has become more selective and competitive. Additional training frequently confers a competitive advantage for our trainees when applying for positions. A number of our fellows have acquired positions in other academic centers across Canada or their country of origin whilesome have been recruited for our own Faculty! A growing trend for our international trainees is staying in Canada for two years and acquiring a second fellowship. For many, having fellowship training in two areas has improved their marketability for future employment.

Most fellows take advantage of the research activities that each site offers. A little more than half of the posters and almost a quarter of the oral presentations at this year's Shields Day came from the fellows. Dr. Grant Stuart won this year's Dr. R. J. Byrick award for the Best Fellow's research paper presentation. Our fellows also did well at the annual CAS meeting: Dr. Caitriona Murphy won the best paper in Obstetrical Anesthesia, while Dr. Martin Kim won the best TEE case presentation. Drs. Tania Bailey and Kristina Khanduja were both finalists in the annual Richard Knill competition for Best Research Paper presentation.

Although our programs are still currently hospital-department based, the university component of the fellowship is evolving gradually. The fellows are brought together monthly for the university Professor's Rounds. These 8 talks were designed to introduce the fellows to the breadth and scope of expertise that is present in the university department. It also provides



THE SUCCESS OF OUR
FELLOWS IS A TESTAMENT
TO THE EXCELLENT
CLINICAL TEACHERS AND
THE HARD WORK OF ALL
THOSE IN THE PROGRAM.

an opportunity for people from different sites to meet. Chief fellows have been appointed at each hospital site, and a Chief Fellow committee struck with the program director to discuss relevant issues and challenges that may arise during the year. Fellows from the same sub-specialty area from different hospitals have even started to organize their own academic meetings!

The electronic case log-book that has been used by the residents has now been extended to fellows who wish to participate. Many foreign trainees already use one from their home country. Similar to the residents, evaluations of fellows are being done by most sites on the POWER system. These are mandatory and must be satisfactory before a University Fellowship certificate is given out at the end of the training period.

Most of the subspecialty programs are popular. The success rate of the TEE exam this year among the cardiac fellows was 100%, a testament to the excellent clinical teachers, the volume of clinical material, and of course the hard work put in by the fellows. Some areas are now accepting applicants a few years in advance.

PROFESSORS' ROUNDS FOR FELLOWS 2011-2012

DATE	TOPIC	SPEAKER
September 19	A Primer on Memory and Anesthesia	Dr. Lakshmi Venkatraghavan
November 14	Anemia or Transfusion: Which is Worse?	Dr. Greg Hare
November 25	Magic and Misconduct	Dr. Steven Shafer
January 31	Looking Behind the Data: Why trials of Tight Glycemic Control in ICU Are Not So Smart	Dr. Brian Kavanagh
February 22	Pre-operative Cardiac Risk Assessment - Art, Science or Neither?	Dr. Duminda Wijeysundera
March 22	Extubation of the Difficult Airway	Dr. Richard Cooper
April 19	Advances in Lung Isolation	Dr. Peter Slinger
May 31	Ultrasound Assisted Epidurals and Spinals in Obstetrics and Other Patients	Dr. Jose Carvalho

ANESTHESIA FELLOWS 2011-2012

THE HOSPITAL FOR SICK CH			
Chin, Vannessa	Jamaica	Maynes Jason	Canada
Faden, Mazen	Saudi Arabia	O'Sullivan Michael	Ireland
Henze, Georg	Switzerland	Petersen, Jens	Denmark
Henzi, Iris	Switzerland	Plant, Nina	United Kingdom
Kruger, Phil	South Africa/Canada	Rastogi, Sachin	United Kingdom
Mathew, Preethy	India	Sinha, Tripiti	India
Stuart, Grant	United Kingdom		
MOUNT SINAI HOSPITAL			
Ahmed, Iram	United Kingdom	Hards, Andrea	United Kingdom
Anandakrishnan, Suresh	United Kingdom	Henderson, Tammy	Canada
Baghirzada, Leyla	Canada	Khan, Mubeen	United Kingdom
Bharwan,i Fayaz	Canada	Mahmoud, Shireen	Egypt
Boulis, Sherif Refaat	Egypt	Masood, Amna	Pakistan
Clivatti, Jefferson	Brazil	Nandhakumar, Amar	India
Cordovani, Ligia	Brazil	Neitman, Dmitri	Israel
Cubillos, Javier	Columbia	Ohashi, Yayoi	Japan
Desai, Devdatta	India	Smith, Rebecca-Lea	United Kingdom
D'Costa, Abelina	Canada	Vandana, Vaishnav	Ireland
	Ireland	vallualla, vaisiillav	iretanu
Doherty, Anne	ii etaitu		
ST. MICHAEL'S HOSPITAL	Australia (D.D.Carrad.)	McConthy Danies	Irolon d
Afsari, Mahnaz	Australia (P.R.Canada)	McCarthy, Denise	Ireland
Allaert, Silvie	Belgium	Mehta, Bobby	Canada
D'Costa, Abelina	Canada	Papa, Fabio	Brazil
Egan, Tim	United Kingdom	Rady, Sherif	Egypt (P.R. Canada)
Garavaglia, Marco	Italy	Raju, Arvind	Australia
Kim, Han	Canada	Trang, Amy	Canada
Kim, Martin	Australia	Yaseen, Mohammed	Canada
Lau, Gary	United Kingdom		
SUNNYBROOK HEALTH SCIE			
Choi, Steve	Canada	Luyet, Cedric	Switzerland
Chuquer, Maria	Brazil	Nix, Catherine	Ireland
Conroy, Patrick	Ireland	Pandya, Seema	India (P.R. Canada)
Constantinescu, Corina	Romania (P.R. Canada)	Patel, Snajiv	United Kingdom
Cordovani, Daniel	Brazil	Phua Darren	Singapore
Fried, Ben	Canada	Roberts, Lisa	Canada
Ju, Hui	China	Ross, Paul	Australia
		Dyon Tony	
Kahlon, Navraj	Canada	Ryan, Tony	Australia
Kahlon, Navraj Khanduja, Krissie	Canada United Kingdom	Singh, Mandeep	Australia India (P.R. Canada)
Khanduja, Krissie	United Kingdom Australia	Singh, Mandeep	India (P.R. Canada)
Khanduja, Krissie Lansdown, Andrew UHN-TORONTO GENERAL H Ashes, Catherine	United Kingdom Australia OSPITAL Australia	Singh, Mandeep Tavakkolizadeh, Moein Judelman, Saul	India (P.R. Canada) United Kingdom Australia
Khanduja, Krissie Lansdown, Andrew UHN-TORONTO GENERAL H Ashes, Catherine Ashworth, Alan	United Kingdom Australia OSPITAL Australia United Kingdom	Singh, Mandeep Tavakkolizadeh, Moein Judelman, Saul Khalil, Raghad	India (P.R. Canada) United Kingdom Australia Canada
Khanduja, Krissie Lansdown, Andrew UHN-TORONTO GENERAL H Ashes, Catherine Ashworth, Alan Cerutti, Benjamin	United Kingdom Australia OSPITAL Australia United Kingdom Australia	Singh, Mandeep Tavakkolizadeh, Moein Judelman, Saul Khalil, Raghad Khanduja, Kristina	India (P.R. Canada) United Kingdom Australia Canada United Kingdom
Khanduja, Krissie Lansdown, Andrew UHN-TORONTO GENERAL H Ashes, Catherine Ashworth, Alan Cerutti, Benjamin Cordovani, Daniel	United Kingdom Australia OSPITAL Australia United Kingdom	Singh, Mandeep Tavakkolizadeh, Moein Judelman, Saul Khalil, Raghad Khanduja, Kristina Nair, Saeda	India (P.R. Canada) United Kingdom Australia Canada United Kingdom United Kingdom
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CONTINUING EDUCATION PROGRAMS

REPORT FROM DR. PETER SLINGER DIRECTOR CME/CPD PROGRAMS

The Continuing Education Committee for the Department of Anesthesia is comprised of representatives from each of the teaching hospitals as well as directors of CME courses and community hospital representatives. It meets 4 times/year to discuss, plan and organize a number of continuing education initiatives. The committee endeavors to ensure that most CE activities qualify for University of Toronto sponsorship and are accredited learning activities.



WE ARE COMMITTED TO
PROMOTING CME/PD BOTH
WITHIN THE UT DEPARTMENT
AND IN THE ANESTHESIA
COMMUNITY

Course Development

Each year the committee supervises the Anesthesia Practice Meeting. Under the Co-direction of Drs. Lashmi Venkatraghavan and Clarita Margarido in 2011. This three-day course provides a combination of lectures, workshops and small group sessions for both Fellowship and GP Anesthetists. For 2012, Elizabeth AuYeung will replace Lashmi Venkatraghaven. Over the past three years, the meeting has been extremely successful.

Course Sponsorship

The CME Committee aids in the development and accreditation of ongoing CME courses produced by the U of T Department of Anesthesia. Anesthesia CME courses for July 2011-June 2012 include:

Anesthesia CME courses for July 2011-June 2012 include:

COURSE	DATE(S)	COURSE ORGANISER
Obstetric Anesthesia. Mount Sinai Hospital	Sept. 16 & 17, 2011	Jose Carvalho
Introductory Workshop for Ultrasound Guided Nerve Blocks	Oct. 21-23, 2011	Vincent Chan
Advanced Workshop for Ultrasound Guided Nerve Blocks	Nov. 18-19, 2011	Vincent Chan
Pediatric Anesthesia	Nov. 4-6, 2011	Elizabeth McLeod
Perioperative Transesophageal Echocardiography Symposium	Nov. 5-6, 2011	Annette Vegas
Anesthesia Faculty Development Day	Nov. 11, 2011	Martin van der Vyver
Critical Care Canada Forum	Nov. 13-18, 2011	Brian Kavanagh
Obstetric Anesthesia Day	Nov. 25, 2011	Clarita Margarido
Mendelsohn Lecture. Mt Sinai Hospital	Nov. 26-27, 2011	Elizabeth Au-Yeung
Toronto Anesthesia Practice	Nov. 26-27, 2011	Elizabeth Au-Yeung
Regional Anesthesia and Pain Medicine	Nov. 27-30, 2011	Vincent Chan
Ski and Scan. Banff	Feb. 23-29, 2012	Colin McCartney & Alayne Kealey
Toronto Anesthesia Symposium	Apr. 14-15, 2012	Peter Slinger, David Wong & Aliya Salman
Shields Day	May 4, 2012	Zeev Friedman

Future Anesthesia CME Courses Include:

COURSE	DATE(S)	COURSE ORGANISER
Regional Anesthesia and Pain Medicine	Oct. 25-28, 2012	Ahtsham Niazi
Critical Care Canada Forum	Oct. 28-31, 2012,	Brian Kavanagh
Perioperative Trans-esophageal Echocardiography Symposium	Nov. 3-4, 2012	Jo Carroll (jo.carroll@uhn.on.ca)
Anesthesia Faculty Development Day	Nov. 12, 2012	Martin van der Vyver
Obstetric Anesthesia Day, Women's College Hospital	Nov. 23, 2012	Clarita Margarido
Mendelsohn Lecture. Mt. Sinai Hospital,	Nov. 23, 2012	Elizabeth Au-Yeung
Toronto Anesthesia Practice	Nov. 24-25, 2012	Elizabeth Au-Yeung
Ultrasound for Pain Medicine Workshop	Nov. 30 -Dec. 2, 2012	Philip Peng
Toronto Anesthesia Symposium	Apr. 13-14, 2013	Peter Slinger, David Wong, Aliya Salman
Shields Day	May 10, 2013	Zeev Friedman
Controversies in Perioperative Medicine	May 12-18, 2013	Mark Friedlander
Obstetric Anesthesia, Mount Sinai Hospital	Sept. 20 & 21, 2013	Jose Carvalho
Pediatric Anesthesia	Nov. 8, 2013	Elizabeth McLeod

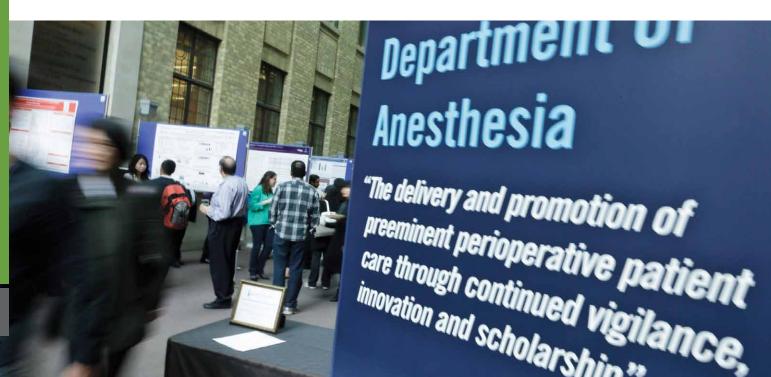
Web-Based Learning:

1) CME Online Anesthesia Rounds

This program has been enlarged to 15 educational modules. This program has been developed by Sharon Davies (MSH). These modules have been accredited by the University of Toronto CEPD Dept. for Section 3 RCPSC credits. In 2011, 986 modules were completed by 441 participants. These modules can be accessed through the U of T Anesthesia Dept. website www.anesthesia.utoronto.ca under: Education/ Continuing Medical Education.

2) Web-Based Bronchoscopy Simulator.

The Thoracic Anesthesia group of the Toronto General Hospital has created an online bronchoscopy simulator to improve Anesthesiologist's skills in providing lung isolation for thoracic anesthesia by learning bronchial anatomy. The Simulator and Quiz can be accessed on the website www.thoracicanesthesia.com. This simulator has been accredited by the University of Toronto CEPD Dept. for CME credits.



ANESTHESIA ALUMNI ASSOCIATION

REPORT FROM DR. STEPHEN BROWN | PRESIDENT UT ANESTHESIA ALUMNI ASSOCIATION

The creation of a UT Department of Anesthesia Alumni Association was a key recommendation from the Department Strategic Planning exercise in late 2008. It was recognized that advancement, advocacy, and Alumni activities were critical to the fulfillment of the strategic vision of the Department.

The Alumni Association was formed in 2010. Members include: Stephen Brown, Charles Knapp, Doreen Yee, John Hanlon, Richard Ahn, and Anne Grise - with invaluable assistance from Wendy Kubasik, Craig Daniels, and Gary Cronin. Our goal was to create comprehensive programs to support Alumni, assist in networking, involve current Faculty, residents and fellows, and build a sense of engagement and continuity.

Events to date:

2010 Oct OMA Meeting Reception (25) 2011 June CAS Toronto Reception (130) 2011 Nov UT Department of Anesthesia Faculty **Recognition Event (70)**

2012 June CAS Quebec City Reception (100)

In addition to the above events we have created a database with information on 1655 alumni and have an email Listserve for 900. You have probably visited the newly-created Alumni page on the Department website which contains important



STRENGTHENING RELATIONSHIPS WITH ALUMNI HAS THE POTENTIAL TO **ADVANCE BOTH INSTITUTIONAL** AND INDIVIDUAL PROFESSIONAL GOALS.

links and information about upcoming events. We have worked together with the UT Faculty of Medicine Advancement office to administer the first UT Anesthesia Alumni Survey. We received 92 responses representing a 10% response rate. Our Department is also fortunate to have been assigned an Advancement Officer to assist us in ongoing advocacy and fundraising activities.

There are many exciting initiatives on the horizon. Our Association needs to expand to tackle several new projects including: CAS Reception in Calgary, analysis of and strategic action on the Alumni Survey results, creation of a resident mentorship program, a coordinated approach to Alumni CME, enhanced networking and communication, and formalizing our approach to Alumni recognition.

Our hope is that the formation of an Alumni Association will help foster vital links between the University program, hospital-affiliated programs, and the community at large.



FACULTY DEVELOPMENT

REPORT FROM DR. MARTIN VAN DER VYVER I DIRECTOR FACULTY DEVELOPMENT PROGRAMS

Since July 2011, the Faculty Development Committee has the same status as the other education committees in the Department of Anesthesia. All the fully affiliated teaching sites (and one partially affiliated site) now have full representation on the Faculty Development committee. Two way communication with faculty in the different teaching sites should be greatly enhanced by this.

The members of the Faculty Development committee for the period 2011-2012:

Martin van der Vyver – Committee Chair

Craig Daniels - Secretary

Megan Hayter - St. Michaels Hospital

Susan Lilker - St. Joseph's Health Care Centre

Clyde Matava - The Hospital for Sick Children

David McKnight - Vice Chair, Education, Dept of Anesthesia

Claire Middleton - Toronto General Hospital

Martha O'Driscoll - Sunnybrook Health Sciences Hospital

Sheila Riazi - Toronto Western Hospital

Eric You Ten - Mount Sinai Hospital

The annual Faculty Development Day was held on Friday, 11 November 2011 at the Chestnut Centre in downtown Toronto. The goals of Faculty Development Day are to:

- improve teaching and other professional skills that faculty require,
- 2. provide a platform to present research and innovations in the field of education or Creative Professional Activities, and
- 3. recognize teaching excellence.

It also provides another day (in addition to Shields day) for our faculty to network. Faculty Development Day has the same status in the department as Shields day and we hope that in the future all teaching sites will enable their staff to attend in large numbers.

Faculty Development Day 2011 was arranged by the following planning committee:

Martin van der Vyver - Chair of planning committee



OUR AIM IS TO PLAN AND IMPLEMENT VARIOUS PROGRAM-RELATED INITIATIVES TO FACILITATE THE DEVELOPMENT OF OUR EDUCATORS

Sheila Riazi and Clyde Matava - Sub-chairs, arranging scientific sessions

Craig Daniels - Secretary (Business Manager, Department of Anesthesia)

Gary Cronin - Web service support

Jennifer Morris - Admin support

The keynote presentation was made by Peter Minich, an international expert in physician leadership. This was followed by small group sessions on the following topics:

- · Interprofessional education Saroo Sharma; Simon Kitto
- Undergraduate anesthesia education Lisa Bahrey
- Feedback Debbie Kwan /Jerry Maniate
- Changes to MOCOM program and Mainport system Susan Schneeweiss
- Getting the Most Out of Your iPad/ iPhone Deven Chandra and Nick Lo
- Use of audience response systems to improve learning -Martin van der Vyver

The award for best oral presentation was awarded to Dr. Megan Hayter from St. Michaels Hospital for the following presentation *The effect of mental practice on crisis resource management: A simulation study*. Dr. Andrew Cooper was awarded the prize for the best poster presentation on the topic *Creating and measuring change in ICU consent process:* CHELO Checklist to meet ethical & legal obligations.

The people's choice awards went to Dr. Ahtsham Niazi for his oral presentation on *The use of an interactive 3D anatomic model to improve initial performance in ultrasound scanning of the spine* and Dr. Matt Kurrek for his poster presentation *Changing Behaviour through Peer Assessment*

RESEARCH PROGRAMS

REPORT FROM DR. DAVID MAZER I VICE CHAIR RESEARCH

We are very pleased to report another highly successful year for research in the Department of Anesthesia at the University of Toronto. The accomplishments by our outstanding faculty and trainees in terms of publications, grants, awards and recognition (which are detailed elsewhere in this annual report) demonstrate an unparalleled commitment to advancing the creation and dissemination of new knowledge related to our specialty. Thanks to this exceptional productivity, we are amongst the top ranked global Anesthesia research institutions and the highest ranked of all Canadian Universities and of all Association of American Universities public institutions.



OUR RESEARCH IS
ALSO EXEMPLIFIED
BY PUBLICATION IN A
REMARKABLE RANGE OF
JOURNALS

UNIVERSITY	# PUBL	ICATIONS		UNIVERSITY	# CITATIONS
	2005 to 2009	2006 to 2010	2007 to 2011		2007 to 2011
Harvard	485	485	501	Harvard	4.053
TORONTO	402	429	463	TORONTO	3,509
Calif - San Francisco	215	219	223	Calif - San Francisco	2,093
U Washington	165	172	198	U Washington	2,091
Duke	220	197	190	Duke	1.615
MCGILL	220	183	185	MCGILL	1,381
Stanford	166	174	183	U Penn	1,375
U Penn	147	163	180	Johns Hopkins	1,375
	153	154	160	Florida	
Johns Hopkins					1,297
Michigan	110	124	149	Stanford	1,172
Pittsburgh	131	124	131	Pittsburgh	1,162
lowa	117	121	130	Calif - San Diego	1,090
MONTREAL	143	137	129	Iowa	1,019
Northwestern	85	95	117	Wisc - Madison	960
Calif - San Diego	102	112	115	Michigan	895
Columbia	125	112	114	Columbia	892
BRITISH COLUMBIA	160	100	113	Rochester	866
Florida	119	114	101	MONTREAL	841
Yale	107	102	100	BRITISH COLUMBIA	781
Washington U	72	64	85	Yale	743
Cornell	51	65	76	Emory	733
Emory	68	73	74	Northwestern	686
ALBERTA	84	75	72	Virginia	641
DALHOUSIE	110	62	72	Washington U	630
Virginia	65	64	67	Cornell	543
Vanderbilt	46	57	62	Calif - Los Angeles	530
Chicago	59	58	61	MCMASTER	442
OTTAWA	122	53	61	DALHOUSIE	431
WESTERN ONT	65	55	57	WESTERN ONT	392
	42	47	55	ALBERTA	384
Wisc - Madison	42	52	55 54		
Rochester				Indiana	351
Calif - Irvine	32	41	51	SASKATCHEWAN	348
Calif - Davis	58	60	49	OTTAWA	313
CALGARY	50	48	48	N Carolina	302
Penn State	34	37	44	Minnesota	283
Calif - Los Angeles	63	50	43	Calif - Irvine	278
N Carolina - Chapel Hill	34	35	39	Calif - Davis	265
New York U	39	37	39	Chicago	240
Minnesota	38	37	38	Kansas	229
QUEEN'S	37	34	35	Vanderbilt	222
MCMASTER	107	28	34	New York U	218
MANITOBA		24	33	MANITOBA	198
Arizona	23	24	30	QUEEN'S	186
LAVAL	30	23	30	Arizona	186
Ohio State	16	21	30	Southern California	177
Rutgers State	23	9	28	SUNY - Stony Brook	172
SUNY - Buffalo	23	24	28	LAVAL	169
Case Western Reserve	42	36	27	CALGARY	166
ndiana	21	5	24	Penn State	160
	38	28			133
Missouri Columbia			24	Missouri Columbia	
Kansas	16	18	18	SUNY - Buffalo	120
Southern California	30	23	18	Ohio State	102
Brown	12	15	15	Mass Inst Tech	101
SASKATCHEWAN		14	15	Rutgers State	97

The breadth and depth of our research is also exemplified by publication in a remarkable range of journals from a wide variety of disciplines and by the significant number of invited lectures and visiting professorships by our faculty around the world.

Several members of our department received prominent recognition with exceptional research awards last year. Dr Duminda Wijeysundera received a 3-year CIHR Clinician Scientist Salary Award from the Canadian Institutes of Health Research to pursue his research on the Measurement of Exercise Tolerance for Surgery (METS) Study and populationbased evaluation of determinants and outcomes associated with variation in preoperative cardiac testing. Dr. Brian Kavanagh and Dr. Beverley Orser were elected as Fellows of the Canadian Academy of Health Sciences based on their creativity, demonstrated leadership and history of outstanding accomplishments in the academic health sciences in Canada. Dr. Andrew Baker was awarded the Queen Elizabeth II Diamond Jubilee Medal for outstanding leadership in the study and management of brain injury. Dr Scott Beattie received the Research Recognition Award from the Canadian Anesthesiologists' Society in recognition of sustained research in and major contributions to anesthesiology and perioperative medicine. Dr Elod Szabo was awarded a prestigious 3-year New Investigator Award from the CIHR/SickKids Foundation, for his research on "Understanding Voltage-Gated Ion Channel-Related Cardiomyopathy. Dr. Colin McCartney was appointed to the Associate Editorial Board of the British Journal of Anaesthesia, joining several other of our faculty who hold important editorial board positions for the leading journals of our specialty.

The Merit Awards Program is the cornerstone for allocation of University funding to anesthesia faculty to support academic time for research. An interim Merit Awards competition was held last year for new faculty investigators - congratulations to the recipients (Stephen Choi, John Laffey, Clyde Matava and Jason Maynes) whose projects are listed in this report.

Another priority of our Department is the encouragement of trainee involvement in Research. In addition to the 2 residents in our unique Clinician Investigator Program there were 5 other residents enrolled in advanced degree programs and numerous fellows engaged in research. Much of this trainee research was presented at our outstanding annual Shields Research Day, the organization of which was led by Dr. Ze'ev Friedman, our resident research mentor. The list of Shields Day award recipients is included elsewhere in this report.

The Department of Anesthesia at the University of Toronto continues to provide international leadership in research and innovation related to our specialty. We are extremely proud of the accomplishments by members of our department in the conduct of world class research which has global impact.



ANESTHESIA ANNUAL REPORT 2011 - 12

ANNUAL SHIELDS RESEARCH DAY 2012

DR. ZEEV FRIEDMAN, CHAIR, ANNUAL SHIELDS RESEARCH DAY 2012

This year we had a record 77 abstract submissions for presentation at the 33rd Annual Shields Research Day. These (as usual) were projects of very high quality, making life for the abstract and presentation judges very difficult.

As usual for this event, the auditorium was packed with members of the University of Toronto Department of Anesthesia eager to learn about the wide range of cutting edge research performed by our colleagues and trainees. The combination of stimulating research and the opportunity for a social city wide get together (having nice food didn't hurt either) is what makes the event so popular.

The Annual Shields Day Lecture "Why do patients get Postoperative Cognitive Decline?" was given by Dr Mervyn Maze. Dr Maze was also the discussant for the Department of Anesthesia Research-in-Progress Seminar "Reversing memory loss associated with inflammation" presented by Agnieszka Zurek and Dr Orser. He later entertained us with a lecture about his research career "Lessons learned from the discovery and development of dexmedetomidine".

Ten different awards were handed out, including the A.C. Bryan Award for Best Presentation by a Graduate Student that was awarded to Irene Lecker, the Dr. Hynek Rothbart Award for Best Presentation by a Resident that was awarded to Mark McVey, the R.J. Byrick Award for Best Presentation by a Fellow which was awarded to Grant Stuart and the David Bevan Award for Best Overall Poster that went to Patrick Wong.

I'd like to thank the anesthesia department staff for their hard work in organizing this day and making it the success it is. See you on May 10th 2013 for the 34th Annual Shields Research Day.





OUR GOAL IS TO CONTINUE TO EXPAND OUR KNOWLEDGE, TO ENHANCE OUR ABILITY TO IMPART OUR KNOWLEDGE TO **OUR LEARNERS AND TO ENSURE** THAT WE AUGMENT THE DELIVERY OF CARE TO OUR PATIENTS

Department of

Anesthesia

PEER-REVIEWED PUBLICATIONS

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INVITED LECTURERS

Angle, P

• Toronto Anesthetic Practice Meeting. Women's College Hospital, Toronto, November 2011

"Evidence based approach to PDPH" "Patient Controlled Epidural Analgesia"

 Society for Obstetrical Anesthesia and Perinatology Meeting. Monterey, California, May 2012

> "Evidence Based Clinical Practice in OB Anesthesia: Using the Evidence Cycle for Articles related to Therapy"

Arzola, C

 Obstetric Anesthesia Conference. University of Toronto, Toronto, September 2011

"Analgesia for External Cephalic Version"

Annual Comprehensive Regional Anesthesia Workshop.
 State University of New York, Buffalo (SUNY), Buffalo, New York, USA, April 2012

"Spinal Ultrasound for Neuraxial Anesthesia"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Pro-Con Debate: Cesarean Section Should be Managed With Low Dose CSE, Not High Dose Spinals With Vasopressors"

Avila, A

 Anesthesia Updated in Orthopedic Surgery. Zulia University, Hospital Coromoto, Maracaibo, Venezuela, December 2011

> "Critical Care Medicine Updated in Ventilation and Pain Management in the Critically III patient"

Awad, I

• The Scarborough Hospital, January 2012

"Regional anesthesia for orthopaedic surgery and how to change practice"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Advanced lower limb blocks"

"Adjuvants to local anesthetics: to combine or not"

Baker, A

Annual Conference of Chinese Neurosurgical Society.
 Tianjin, China, October 2011

"Developments in the understanding of traumatic and blast-induced brain injury mechanisms".

Critical Care Canada Forum. Toronto, November 2011

"Long-term Effects of Low-level Trauma"

"Understanding Cerebral Perfusion"

"Update on Donation after Cardiac Death (DCD)"

Balki, M

 Annual Obstetric Anesthesia Conference. Mount Sinai Hospital, Toronto, September 2011

"Use Of Ultrasound In Obstetric Anesthesia"
"Physics Of Ultrasound And Image Interpretation"
"Grey Areas In Obstetric Anesthesia"

Anaesthetic Practice. Toronto, November 2011

"Ultrasound For Peripheral Nerve Blocks/Neuraxial Blocks & Vascular Access Workshop."

• Toronto Anesthesia Symposium. Toronto, April 2012

"Perimortem Cesarean Section. Problem-Based Learning/Discussion"

"Ultrasound For Epidural Anesthesia"

 Annual Society for Obstetric Anesthesia and Perinatology Meeting. Monterey, California, May 2012

> "Carbetocin Vs. Oxytocin: In-Vitro Human Myometrial Contractions After Oxytocin Pre-Treatment" "Ultrasound Workshop"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Case discussion: Managing the parturient with a percreta"

"Ultrasound for labour epidurals workshop"

Bhatia, A

 Preceptorship day. Wasser Pain Management Centre, Mount Sinai Hospital, Toronto, July 2011

"Management of acute pain episodes in patients with chronic pain"

 Wasser Pain Management Centre, Mount Sinai Hospital, Toronto, October 2011

"Management of acute pain episodes in patients with chronic pain"

Indian Society for Study of Pain Annual Conference.
 Bengaluru, India, February 2012

"Interventional Pain Management Procedures"

 Ski and Scan 2012. Banff, Alberta, British Columbia, February 2012

"Ultrasound guided pain management: peripheral procedures"

 Biannual International Pain Congress. Middelburg, The Netherlands, April 2012

"Ultrasound for pain management"

 Pre-conference workshop Canadian Association of Physical Medicine and Rehabilitation. Toronto, June 2012

> "Ultrasound Guided Musculoskeletal Interventions Bio-Skills Lab"

 Annual Meeting of the International Society of Ultrasound in Regional Anesthesia. Toronto, June 2012

"Ultrasound for pain management"

Bowry, R

 Health Achieve – Quality Improvement Plans. Toronto, November 2011

"The Role of QIP's to support Physician QI"

 Emergency Medicine Grand Rounds. University of Toronto, Toronto, April 2012

"Process Redesign in the Emergency Department"

Byrick, R

· University of Ottawa, Ottawa, October 2011

"Simulation and Safety"

Campbell, F

 Ontario Medical Association, Toronto, September 2011 "Continuing Education"

SickKids Pain Centre, Toronto, November 2011

"Decreasing the Headache of Headache: Diagnosis, assessment and Management"

Eastern Virginia Medical School; Department of Pediatrics,
 Grand Rounds. Norfolk, Virginia, United States. November 2011

"Pain Matters; Improving Pain outcomes in hospitalized children"

"Chronic Pain in Children and Youth: Evaluation & Management"

"Pediatric pain and palliative care"

 Southlake Regional Health Centre, Department of Anesthesia, Newmarket, May 2012

"Pain Matters in Hospitalized Children"

Grand Rounds. SickKids, Toronto, 2012

"Pain: it's not what you think.... Perioperative Services"

Carvalho, J

Annual Obstetric Anesthesia Conference and Workshop.
 Mount Sinai Hospital, Toronto, September-October 2011

"Use of ultrasound in Obstetric Anesthesia"

"Uterotonics: what is new"

• The Albert Van Steenberge Memorial: Lecture

"Place of ultrasound in obstetric anesthesia"

 Annual Meeting of the Belgium Association for regional Anesthesia. Brussels, Belgium, September 2011

"Spinal Ultrasound Workshop"

• Regional Anesthesia and Pain Medicine. Toronto, October 2011

"Cesarean section anesthesia and analgesia"

"Ultrasound imaging for neuraxial anesthesia: normal and abnormal anatomy"

"Obstetric Case Discussion Master Class"

"TAP Block Masterclass"

 Post Graduate Assembly in Anesthesiology. New York, December 2011

"Ultrasound-assisted spinal and epidurals" "Spinal Ultrasound Workshop"

 Department of Anesthesia, University of Alabama in Birmingham, Birmingham, January 2012

> "Ultrasound-assisted spinal and epidurals in obstetrics" "Regional anesthesia for cesarean section"

"Use of ultrasound in obstetric anesthesia"

- Western Anaesthesia Symposium. Galway, Ireland, March 2012
 - "Spinal Ultrasound Workshop"
 - "Analgesia following cesarean section"
 - "Ultrasound in obstetric anesthesia"

 World Congress of Anaesthesiologists. Buenos Aires, Argentina, March 2012

"Use of ultrasound to guide epidural insertion"

 Annual meeting of the Society for Obstetric Anesthesia and Perinatology. Monterey, May 2012

"Use of ultrasound in obstetric anesthesia – spinals and epidurals, vascular access and TAP blocks"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Use of ultrasound for neuraxial anesthesia"

 Obstetric Anesthesia Q&A intensive course for GP Anesthetists. Orangeville, Ontario, June, 2012

Chan, V

 International Forum on Visual Technology for Anesthesia/ Pain/Critical care/Emergency Medicine. Cheng Du, China, July 2011

"Ultrasound Guided Regional Anesthesia- Current Concept & Future Trend"

"New Applications of Ultrasound in Anesthesia and Future Trends in Regional Anesthesia"

"Vascular, Tracheal and Stomach Ultrasound"

 Beijing Society of Anesthesiology Annual Meeting. Beijing, China, July 2011

"Ultrasound Guided Regional Anesthesia – Current Concepts and Future Trend"

 Ultrasound Guided Peripheral Nerve Block, International Training Course. Department of Anesthesiology, Faculty of Medicine, Siriraj Hospital, Bangkok, Thailand, August 2011

"Pearls and Pitfalls in Ultrasound Guided Regional Anesthesia"

"Principles of ultrasonography: physics, scanning techniques, knobology"

"Interscalene, Supraclavicular, Infraclavicular, Axillary Brachial Plexus Sonoanatomy"

"Diagnosis and Prognosis of Nerve Damage Associated with Peripheral Nerve Block"

"Upper Extremity: Interscalene, Supraclavicular, Scanning and Needling"

 The Royal College of Anesthesiologists of Thailand, Annual Meeting. Bangkok, Thailand, August 2011

"Preoperative Ultrasound Application for Airway, Stomach and Cardiac Assessment"

 American Society of Anesthesiologists Annual Meeting. Chicago, Illinois, October 2011

"Nerve Injury Following Regional Anesthesia: What Has Ultrasound Taught Us?"

"Peripheral Nerve Blocks: Ultrasound, Simulation and Stimulation"

 Congresso Brasileiro de Anestesiologia. Fortaleza, Ceara, Brazil, November 2011

"Understanding Ultrasound Images of Peripheral Nerve Blocks"

"Local Anesthetic Toxicity in Peripheral Nerve Blocks" "Peripheral and Neuraxial Blockade" Continuing Medical Education Day and Current Concepts Symposium. The Royal College of Anaesthetists, London, United Kingdom, November 2011.

"Peripheral Nerve Blockade"

"Regional Anaesthesia and Anticoagulated Patients: ASRA Guidelines"

 New York School of Regional Anesthesia Annual Regional Anesthesia and Acute Pain Management Symposium. New York, New York, December 2011

> "Ultrasound and Continuous Nerve Blocks: Techniques and Stimulating versus Non-Stimulating Catheters" "Equipment for Peripheral Nerve Block: What is New That You Should Know About"

 Ultrasound Guided Regional Anesthesia Workshop, Ateliers d'Echographie en ALR. Clermont-Ferrand, France, December 2011

"Ultrasound Guided Regional Anesthesia: Complications & Prevention"

"Infraclavicular Block"

 Department of Anesthesia, Hospital for Special Surgery, New York, New York, January 2012

"Recent Advances in Ultrasound Imaging for Regional Anesthesia"

 Department of Anesthesia, University of California, San Francisco, California, February 2012

"Perioperative Use of Ultrasound in Anesthesia" "Sonoanatomy Relevant to Pain Blocks"

 Annual UBC Whistler Anesthesiology Summit. Whistler, British Columbia, February 2012

"Advances in Ultrasound Guided Regional Anesthesia and Pain Medicine"

"Perioperative Use of Ultrasound for Anesthesia"

"Case Studies and Panel Discussion"

"Ultrasound Regional Workshops"

Ultrasound and Regional Anesthesia Symposium,
 Ultrasound Guided Nerve Blocks. University of Leipzig,
 Leipzig, Germany, March 2012

"Sciatic nerve blocks: popliteal, anterior and subgluteal"

"Sonoanatomy for peripheral nerve blocks"

 Annual Ultrasound Guided Regional Anesthesia Workshop Upper and Lower Extremity Peripheral Nerve Blocks. Little Rock, Arkansas, April 2012

"Basics of Ultrasound Guided Regional Anesthesia"
"Axillary Brachial Plexus Block"
"Ultrasound Guided Brachial Plexus and Lower Limb Blocks"

"Ultrasound Guided Brachial Plexus Block"

 American Society of Regional Anesthesia and Pain Medicine Annual Spring Meeting. San Diego California, April 2012

> "Infraclavicular and Axillary Brachial Plexus Blocks" "Intensive Ultrasound Comprehensive Workshop"

 WSFA World Congress of Anesthesiologists. Buenos Aires, Argentina, April 2012

"Ultrasound for Regional Anesthesia: Where are We Today?"
"Ultrasound Guided Perineural Catheter for Pain Management"
"Regional Anesthesia in Adults"

 International Anesthesia Research Society Clinical & Scientific Congress. Boston, Massachusetts, May 2012

> "Advanced Ultrasound Guided Nerve Block Workshop" "Peripheral Nerve Blocks: Ultrasound, Simulation and Stimulation Workshop"

Chen, R

 Annual Toronto Perioperative Transesophageal Echocardiography Symposium. Toronto, November 2011

"Workshop: FOCUS TTE. Clinical Application and Basic views"

Chin, KJ

 Department of Anesthesia, Khoo Teck Puat Hospital, Singapore, Malaysia, July 2011

"Clinical Pearls for Common Blocks"

 St Luke's-Roosevelt Medical Center, New York, New York, October 2011

"Ultrasound Imaging of the Spine: How, When, and Why"

Choi, S

American Society of Regional Anesthesia Annual Meeting.
 San Diego, USA, March 2012

"Hands-on Challenging Anatomy"

Chung, F

General Scientific Meeting of Anesthesiologists.
 Singapore, Malaysia, August 2011

"The OSA patients, are we really concerned?"
"Pushing the limits of Anesthesia for ambulatory surgery
PONV again, do we really have the stomach for this?"

 Department of Anesthesia, University of Manitoba, Winnipeg, Manitoba, September 2011

"Resident seminar: Update on Postoperative Nausea and Vomiting"

"Update on the Perioperative management of patients with Obstructive Sleep Apnea"

"Ambulatory anesthesia and perioperative medicine: pushing the boundary"

 American College of Chest Physicians Meeting. Honolulu, Hawaii, October 2011

"Preoperative screening with STOP-Bang: Why, What and How?"

 American Society of Anesthesiologists. Chicago, Illinois, October 2011

"OSA Screening in Preoperative Clinic: Why? What? How?"
"Optimizing Recovery for the Ambulatory Patient With
Sleep Disordered Breathing"

"Update on the Perioperative Management of the Patient With Obstructive Sleep Apnea"

 Society of Anesthesia and Sleep Medicine. Chicago, Illinois, October 2011

"Perioperative complications in OSA patients: Evidence based review of the literature"

International Conference for PeriAnesthesia Nurses.
 Toronto, October 2011

"Pushing the boundary of ambulatory surgery and anesthesia – Safe care and discharge"

- Anesthetic Practice Meeting. Toronto, November 2011
 "Update on Perioperative Management of OSA Patients"
- Royal Columbian Hospital, University of British Columbia, Vancouver, British Columbia, November 2011

"Update on perioperative management of OSA"

 Vancouver General Hospital, University of British Columbia, Vancouver, British Columbia, November 2011

"Update on perioperative management of OSA" "Ambulatory Anesthesia: Pushing the boundary"

 Midwest Anesthesiology Conference, Illinois Society of Anesthesiologists. Chicago, Illinois, November 2011

"Perioperative Management of Sleep Apnea"

 Annual Postgraduate Assembly in Anesthesiology. New York, New York, December 2011

"When is ambulatory anesthesia safe for a patient with Obstructive sleep apnea?"

St. Michael's Hospital, Toronto, January 2012
 "Update on management of OSA patients"

 Stony Brook University, New York, New York, January 2012
 "Patients with Obstructive Sleep Apnea: A Clinical Challenge"

 Department of Anesthesiology, Brigham and Women's Hospital, Boston, Massachusetts, February 2012

"Update on Perioperative Management of OSA Patient"

Malaysia Society of Anesthesiologists. Malaysia, April 2012

"Size matters, perioperative management of morbidly obese patients"

"OSA and perioperative complications: An evidence-based review"

 International Anesthesia Research Society Meeting. Boston, Massachusetts, May 2012

"Size matters; Perioperative Management of the Morbidly Obese"

"The Approach to STOP-Bang Questionnaire - What and How?"

 Annual Meeting Society for Ambulatory Anesthesia. Miami Beach, Florida, May 2012

"Consult the Expert-Obstructive Sleep Apnea" "OSA Diagnosis (STOP-Bang)"

• European Anesthesia Meeting. Paris, France, June 2012 "Patients with obstructive sleep apnea should be

discharged home after ambulatory surgery"
• Canadian Anesthesiologist's Society Annual Meeting.

Quebec City, Quebec, June 2012

"Sleep breathing disorders: What an anesthesiologist should know?"

Clarke, H

 Annual Anesthesia Assistant Professional Development Day. Toronto, November 2011

"Preventive Perioperative Multimodal Analgesia"

 University of Toronto Centre for the Study of Pain Annual Scientific Meeting. University of Toronto Faculty Club, Toronto, February 2012

"The perioperative use of Gabapentin and Pregabalin: beyond opioid consumption and acute pain"

 Annual Meeting of the Canadian Pain Society. Whistler, British Columbia, May 2012

"Gabapentin reduces preoperative anxiety and pain catastrophizing scores prior to major surgery"

 Pfizer Breakfast Scientific Exchange Meeting. Whistler, British Columbia, May 2012

"The perioperative effects of Pregabalin following total hip arthroplasty"

 Symposium at the Annual Meeting of the Canadian Pain Society. Whistler, British Columbia, May 2012

"The Genomics and Phenomics of Chronic Postsurgical Pain: Status and Future"

Cooper, R

Society for Airway Management, Annual Scientific Meeting.
 Scottsdale, Arizona, September 2011

"Manikins are useful for airway device evaluation: Pro-Con Debate"

"Workshop: Airway"

"PBL: Extubation of the Difficult Airway"

 American Society of Anesthesiologists Annual Meeting. Chicago, Illinois, October 2011

"Workshop: Basic Adult Flexible Fiberoptic Intubation" "Workshop: Clinical Difficult Airway Workshop and Airway Simulation"

• Rescue Research. Toronto, November 2011

"Pre-hospital Airway Management"

- William Osler Health Centre, Brampton, January 2012 "Airway Management"
- World Congress of Anaesthesiologists. Buenos Aires, Argentina, March 2012

"Workshop: Airway Workshop"

"Pro-Con Debate—Gold Standard (Bronchoscopy vs. Video laryngoscopy)"

• Toronto Anesthesia Symposium, Toronto, April 2012

"Workshop: Airway Workshop—video laryngoscopy" "Airway Update 2012"

 Euroanaesthesia: ESA Annual Scientific Meeting. Paris, France, June 2012

"Workshop: Airway Workshop"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Workshop: Visualizing the Airway"

Cox, P

 National Congress of Paediatric Intensive Care. Puerto Varas, Chile, October 2011

"Disasters, are we prepared?"

"Breaking barriers to communication"

"Training and Education of Intensivists of the future"

• Panamerican & Iberic Congress. Columbia, November 2011

"Quality of Care in a PICU, Communication at the interface"

 National Conference of Pediatric Critical Care. India, November 2011

"Hypoxia, Communication barriers & Ventilation"

Annual CNMC Symposium. Keystone Colorado, February 2012

"ECMO & the Advanced Therapies for Respiratory Failure"

 Annual Canadian Critical Care Conference. Whistler, British Columbia February 2012

"Social Media - getting on the right side of it"

Cuthbertson, B

• Critical Care Canada Forum, Toronto, November 2011

"Quality of life after ICU"

"Results of the FoCCUS study"

"Team Leadership in the ICU"

Critical Care Grand Rounds. McMaster University.
 Hamilton, December 2011

"Team Leadership in Critical Care"

Intensive Care & Emergency Medicine Symposium.
 Brussels, Belgium, March 2012

"Results of the FOCCUS study"
"Long Term Outcomes"

Devito, I

 Obstetric Anesthesia Conference. Mount Sinai Hospital, Toronto, September 2011

"Anesthetic Causes of Maternal Mortality"

Fisher, J

 University of Toronto, Department of Cardiology Grand Rounds. Toronto, December 2011

"Non invasive respiratory Fick Cardiac Output: two enabling advances"

 Department of Anesthesiology Grand Rounds. Cedars-Sinai Medical Center, Los Angeles, California, May 2012

"Non-Invasive cardiac output: Overcoming previous accuracy limitations"

 Australian College of Optometry and University of Melbourne, Melbourne, Australia, May 2012

> "Automated gas control for provocative changes to blood flow in ocular and cerebral vascular beds"

Friedman, Z

International Conference On Resident Education,
 Royal College Of Physicians And Surgeons Of Canada
 Simulation Summit. Montreal, Quebec, November 2011

"Simulation and Debriefing Workshop - Practical Debriefing Techniques"

 Society For Simulation In Health Care. San Diego, California, January 2012

"Challenging Authority During A Life Threatening Crisis"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Research For 'Dummies': The Obstacles To Starting (And Finishing) A Research"

Goldsmidt, E

- Ontario Anesthesia Meeting. Toronto, September 2011
 "Tariff Report"
- Annual Obstetric Anesthesia Conference. Mount Sinai Hospital, Toronto, September 2011

"Anesthetic Causes Of Maternal Mortality"
"Ultrasound For Vascular Access Workshop."

Joseftal Medical Center, Eilat, Israel, October 2011
 "Anesthesia Best Practices and Efficiencies"

 Medical Disorders in Pregnancy: Focus on Critical Care Meeting. Mount Sinai Hospital, Toronto, November 2011

"Anesthesiologist's Role In Obstetric Emergencies"

 Anesthetic Practice Conference. University of Toronto, Toronto, November 2011

"Ultrasound For Vascular Access Workshop"

 Focus on Critical Care Meeting. Mount Sinai Hospital, November, 2011

> "Anesthesiologist's Role in Obstetric Emergencies, Medical Disorders in Pregnancy"

- Mount Sinai Hospital, Toronto, December 2011
 "Meet The Anesthesiologist"
- Society for Obstetric Anesthesia Annual Meeting. Monterey, California, May 2012

"Ultrasound For Vascular Access Workshop"

Halpern, S

- Shaare Tzedec Hospital, Jerusalem, Israel, November 2011
 "Obstetrical Hemorrhage"
- Annual obstetric anesthesia day. Women's College Hospital, Toronto, November 2011

"Transfusion alternatives in a Jehovah's witness with abnormal placentation"

European Society of Anaesthesiology annual meeting,
 Palaise de Congress. Paris, France, June 2012

"Epidural opioids and breastfeeding success rate after delivery"

Hare, G

 Grand Rounds. Department of Anesthesia, Dalhousie University, Halifax Nova Scotia, April 2012

> "Consequences of Anemia-Induced Tissue Hypoxia During Traumatic Brain Injury: Is It Time to Revise Our Transfusion Strategies?"

Hayter, M

University of Toronto, Faculty Development Day.
 Toronto, November 2011

"The effect of mental practice on crisis resource management: a simulation based study"

University of Toronto, Toronto Anesthetic Practice.
 Toronto, November 2011

An ACLS update

 Royal College of Physician and Surgeons of Canada Simulation Summit. Montreal, Quebec City, November, 2011

Simulation workshop: ACLS update, Debriefing: practical lessons in learning the art

Heggie, J

 Annual Toronto Transesophageal Echocardiography Symposium. Toronto, November 2011.

"The Tricuspid and Pulmonary Valve"

Society of Cardiovascular Anesthesia Annual Meeting.
 Boston, Massachusetts, April 2012

"The Adult with Congenital Heart Disease and Non Cardiac Surgery"

Hockmann, E

 Annual Toronto Perioperative Transesophageal Echocardiography Symposium. Toronto November, 2011

"Workshop B FOCUS TTE, Lung US, and FAST Sunday"

"An Interesting Case of Right Heart Failure"

- Anæsthetic practice 2011. Toronto, November 2011
 A Cardina Frances and BACUT
 - "A Cardiac Emergency in PACU"
- Hemodynamics Symposium 2012. Santa Cabrini Hospital, Montreal, Quebec May 2012

"Occult Hypoperfusion; The Tiger in the Grass" The Critical Skills

"Cardiopulmonary Interactions; a Physiological Review"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

FOCUS ECHO Exam

"Percutaneous Bonanza; Mitral Valve and Aortic Valve repair" Case Presentation: Best TEE Cases of the Year

Houston, P

 Shantou Delegation Visit to Li Ka Shing International Healthcare Education Centre. Toronto, September 2011

"Overview of the Education Portfolio at St. Michael's Hospital"

• The Ottawa Hospital, Ottawa, September 2011

"The Role of the Vice President, Education at St. Michael's"

Idestrup, C

 Regional Anesthesia and Pain Medicine Conference 2011 Toronto, October 2011

"Anticoagulants and Peripheral Nerve Blocks"

 Urology Grand Rounds. Sunnybrook Health Sciences Centre, Toronto January 2012

"Post-op Pain Management – Optimizing the Patient Experience"

Jadad, A

 Graduate Studies Program, Singularity University. NASA Ames Research Laboratory, Moffett Field, California, USA, July 2011

"Making a longer life worth living: Let's try to eliminate unnecessary suffering, together"

 Dalla Lana School of Public Health, University of Toronto, Toronto, September 2011

"Making a long life worth living: what is the role of social media? Introduction to Public Health. Media and Technology class-CHL 5004"

 Collaborative Innovation Summit. Providence, Rhode Island, USA, September 2011

"Heal" is a beautiful word. Business Innovation Factory (BIF)-7"

 Centre for Innovation in Complex Care (CICC) Innovation Rounds. Toronto General Hospital, Toronto, September 2011

"When people live with multiple complex conditions: what is the role of the hospital?"

 Dalla Lana School of Public Health, Student-Led Conference, 'Public Health 2.0' -Exploring Innovative and participatory public health technologies. University of Toronto, Toronto, September 2011

"Why Public? Why Health? Why 2.0? Why bother?"

AGE 1000 seminar. Institute of Life Course and Aging.
 University Health Network, Toronto, September 2011

"Technology in Palliative and Supportive Care Delivery"

 Scottish Partnership for Palliative Care Annual Conference: Thinking Ahead in Palliative Care. Royal College of Physicians of Edinburgh, Edinburgh, Scotland, October 2011

"Supporting each other in the age of austerity and social media"

"Workshop: Google, Facebook, and Twitter...Oh my! What skills do we need in the second decade of the 21st Century?"

 Canadian Association of Gerontology (CAG) Annual Scientific and Educational Meeting. Ottawa, October 2011

"Making a longer life worth living: Supporting each other in the age of social media"

 Seminario Para Numeros uno en Salud 2011; Liderando el Futuro; IAE Business School. Austral Universidad, Buenos Aires, Argentina, November 2011

"Innovación en salud. ¿Hacia dónde vamos?"

 CAIBER University Conference: Understanding Complex Networks: the new health research paradigm of 21st century. Madrid, Spain, November 2011

"Social Networks and new technologies: a shift in the current clinical research paradigm"

• OPIMEC. Granada, Spain, January 2012

"II Forum Promoting High Quality Services for People living with Chronic Diseases: Adapting Social and Health Services to Meet Complex Care Needs"

 Future Med Conference. Singularity University, San Francisco, California, USA, February 2012

"eHealth, the So What? And more...."

 Burrill Digital Health Meeting. San Francisco. California, USA, February 2012

"Health: a new concept, and many new opportunities"

 Healthcare Social Media Canada Meet-Up. Healthcare Social Media Canada Meet-Up Social Health Innovations & Challenges. Toronto, February 2012

"Health: new concept and many new opportunities"

 Palliative Care Conference: Making a difference internationally. Edinburgh, Scotland, February 2012

"Formulating answerable questions and redesigning the palliative care research agenda"

"Maximizing ehealth and technology to improve palliative care research, care delivery and outcomes"

 The District 11 Doctors' Lounge Program- part of the District's health and wellness initiative. Ontario Medical Association, Toronto, February 2012

"Stagnation, re-imagination, innovation: an evening with Dr. Alex Jadad"

- CICC Event. Massimo's Kitchen Studio in Toronto, March 2012 "Reflections on failure"
- Committee Weekend of the Canadian Veterinary Medical Association. Ottawa, March 2012

"From Medicine to Health: A conceptual shift in the age of social media"

Global Cancer Research Priorities Strategic Meeting.
 Bethesda, Maryland, USA, March 2012

"mHealth: Implications for the Developing World"

- HCTP Annual Interdisciplinary Symposium. Toronto, March 2012
 "The evolution of the concept of health: Implications for the place of care"
- Canadian Perspectives Lecture Series. University of Toronto, Senior Alumni Association, Toronto, April 2012
 "Making a long life worth living: a view from the Age of the Internet"
- Annual Conference, Hospice Palliative Care in Ontario: Quality, Value and Sustainability. Toronto, April 2012.

"Supporting each other in the age of social media: Could death be, truly, our friend?"

 Toronto Academic Health Science Network Health Care Communicators Education Day. Toronto, May 2012

"X marks the Spot: using social media to reach your target audience"

 International Society of Radiographers and Radiological Technologists World Congress in conjunction with the Canadian Association of Medical Radiation Technologists Annual General Conference. Toronto, June 2012

"Practicing in the age of eHealth innovation: will we be able to protect the "high touch" from the "high tech"?"

- Foros El Espectador. Bogota, Colombia, June 2012

 "Health and wellness in the age of social networks"
- Concordia University's C3S2E'12 International C*
 Conference on Computer Science & Software Engineering.
 Montreal, Quebec, June 2012

"Health: a new concept and many new opportunities in the Age of Social Media"

Jerath, A

 Ethiopian Anesthesia and Critical Care Conference. Addis Abbaba, Ethiopia, April 2012

"Nosocomial Infection"

Karsli, C

- Hamad Medical Corporation. Doha, Qatar, October 2011
 "Pediatric Pain Management"
- Otolaryngology endoscopy course, The Learning Centre, Toronto, May 2012

"Anesthesia for Airway and Esophageal Endoscopy in Children"

Karkouti, K

American Society of Anesthesiologists Annual Meeting.
 Chicago, III, USA, October 2011

"Acute kidney injury after cardiac surgery: who is at risk?"

- Critical Care Canada Forum, Toronto, November 2011
 - "Transfusion in acute care: too little?"
- European Association of Cardiothoracic Anesthesiologists.
 Amsterdam, Netherlands, May 2012

"Ten year patterns in transfusion"

Karski, J

Toronto Transesophageal Echocardiography Symposium.
 Toronto, Ontario, November 2011

"Holes in the Heart"

Kealey, A

Anaesthetic Practice 2011. Toronto, November 2011

"Should we Cancel this Case"

"Ultrasound for Regional Anesthesia"

 Regional Anesthesia and Pain Medicine Meeting. Toronto, October 2011

"Intensive Upper & Lower Limb Ultrasound"

"Home Catheter Program"

• Ski and Scan Conference. Banff, Alberta, February 2012

"Ultrasound for Regional Anesthesia"

"Cadaveric"

"Ultrasound-Guided Vascular Access"

• ISURA. Toronto, June 2012

"Workshop 1 - Ultrasound for Regional Anesthesia"

Katznelson, R

 Canadian Academy of Dental Anaesthesia Annual Meeting, Toronto, November 2011

"What should we know about geriatric anesthesia"

Kavanagh, B

Symposium of Neonatal & Pediatric Mechanical Ventilation.
 Sao Paulo, Brazil, August 2011

"Mechanisms of ventilator induced lung injury; Are lungs

more susceptible to injury induced by ventilation?; As a gene may contribute to acute lung injury; Therapeutic permissive hypercapnia; Volume control on SDR"

 Argentinean Congress on Pediatric Critical Care. Puerto Madryn, Argentina, August 2011

"Acute pulmonary injury"

"Mechanical ventilation: strategy for pulmonary protection"

 Massachusetts General Hospital – Department of Anesthesia, Boston, USA, September 2011

"Glucose Control in Acute Care – Lessons from Clinical Trials," Anesthesia Grand Rounds

American Society of Anesthesiologists Annual Meeting.
 Chicago, USA, October 2011

"Pulmonary Hypertension"

 European Society of Intensive Care Medicine. Berlin, Germany, October 2011

"Hypercapnia and Lung Injury; Monitoring Oxygenation; Management of ICU Hyperglycemia"

 IPOKRATES Sepsis Meeting. Cape Town, South Africa, October 2011

"Ventilator-Induced Lung Injury; Glucose Management in ICU"

Critical Care Canada Forum 2011. Toronto, November 2011

"Threats and opportunities: The future of critical care"

"Plenary session - Activated Protein C"

"Settling (only) for Best - Shaping Excellence in ICU Care"

"ARDS: therapeutics - what causes VILI?"

"Organ donation in the Pediatric ICU"

 Bowman Symposium on Lung Development. Winnipeg, November 2011

"Ventilator-Induced Lung Injury in Neonates"

 Ibero-American Congress of Intensive Care. Cartagena, Colombia, December 2011

"CO2: friend or enemy"?

"Biologic markers in ARDS"

"A practical approach to alveolar recruitment"

 Society of Critical Care Medicine Annual Congress. Houston, USA, February 2012

"What's new in physiologic and molecular mechanisms of acute pulmonary hypertension and right heart failure"

 Quebec Society of Intensivists Annual Congress. Quebec City, February 2012

"Allen Spanier Lecture: Striving for normal – a wise approach in critical care?"

• European Postgraduate Course in Neonatal and Pediatric Intensive Care. Berne, Switzerland, March 2012

"Choosing patient tailored hemodynamic monitoring, targets and therapies in the child suffering from acute lung injury"

"Old and new insights in ventilator associated lung injury" "Therapeutic strategies (ventilatory/nonventilatory) in pediatric ALI/ARDS"

"Update on insulin therapy in the critically ill and additional cons"

"Respiratory System session"

 International Symposium of Intensive Care and Emergency Medicine. Brussels, Belgium, March 2012

"Controlled negative pressure ventilation"

"The role of PCO, and atelectasis"

"ARDS - New Therapeutic Options: Gene activation"

"Special Populations: The pediatric patient"

"VILI: What are the mechanisms?"

"Should We Regionalize Critical Care?"

 North of England Intensive Care Society (NEICS) Spring Meeting. Wynyard Hall, Darlington, UK, March 2012

"Glucose control"

"Carbon dioxide: how much is too much?"

 Pediatric Intensive Care Congress. Sao Paulo, Brazil, April 2012

"Adequacy of oxygenation in mechanical ventilation"

"Ventilation induced lung injury"

"New modes of pediatric mechanical ventilation"

 Annual Critical Care Symposium. Manchester, UK, April 2012

"Mechanisms of ventilator induced lung injury"

"Lessons from controlling glucose in ICU"

"ICU research"

"Sepsis"

 College of Physicians & Surgeons of Columbia University, Dept of Anesthesiology, New York, USA, May 2012

"How does mechanical ventilation cause lung injury?

 University of Pennsylvania, Dept of Anesthesiology and Critical Care, Philadelphia, USA, May 2012

"How mechanical ventilation injures lungs"

 Stollery Children's Hospital, Division of Pediatric Critical Care, Edmonton, Canada, May 2012

"The folly of normalizing parameters in ICU"

 American Thoracic Society Annual Meeting. San Francisco, USA, May 2012

"Mechanical ventilation, ventilator-induced lung injury"

Laffev...

- International SMART Conference. Milan, Italy, May 2012 "Stem Cells for ARDS"
- USCF ARDS Symposium. San Francisco, USA, May 2012
 "Mesenchymal Stem cells for ARDS: Potential and Pitfalls"
- Euroanaesthesia Conference. Paris, France, June 2012 "Research Methods – How it should be"
- St Michael's Hospital, Toronto, June 2012

"Mesenchymal Stem cells for ARDS: Potential and Pitfalls"

 International Symposium in Acute Lung Injury. London, June 2012

"Mesenchymal Stem cells for Ventilation induced Lung Injury: From bench to Bedside"

Macarthur, A

 Annual Obstetric Anesthesia Conference. Mount Sinai Hospital, Toronto, Ontario, September 2011

"Anesthetic Causes Of Maternal Mortality"
"Postpartum Pain"

 University of Toronto, Department of Anesthesia conference on "Obsetetric Anesthesia" Toronto, September 2011

"Postpartum Pain"

 Addis Ababa University, Department of Obstetrics & Gynecology. Addis Ababa, Ethiopia, October 2011

"Anesthesia For High-Risk Obstetric Patients"

 University of Toronto, Department of Obstetrics & Gynecology Conference: Obesity in Pregnancy. Toronto, November 2011

"Anesthetic Considerations For The Obese

Parturient"

"Obesity in Pregnancy"

 Addis Ababa University, Department of Anesthesia, Addis Ababa, Ethiopia, February 2012

"Pre-Eclamptic Patient In The Intensive Care Unit"

Magardio, C

 Mount Sinai Hospital 9th Obstetric Anesthesia Conference and Workshop. Toronto, September 2011

"Transversus Abdominis Plane (TAP) block – Ultrasound Workshop"

 Obstetrical Anesthesia Day. Women's College Hospital, Toronto, November 2011

"Cesarean Section: Post Operative Analgesia"
"Spinal Ultrasound – Ultrasound Workshop"

 SOAP Annual Meeting. Monterey, California May 2012
 "Transversus Abdominis Plane (TAP) block – Ultrasound Workshop"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Is TAP block an effective method of providing pain relief after cesarean section? An EBM approach"

Manninen, P

Intra-Operative-Monitoring Society Annual Meeting.
 Toronto, October 2011

"Anesthesia and Motor Evoked Potentials"

Matava, C

· Ontario Anesthesia 2011. Toronto, September 2011

"Recent studies that have changed Pediatric Anesthesia"

Toronto Anesthesia Practice. Toronto, November 2011
 "Sleep Apnoea – Pediatrics"

Hamad Medical Cooporation. Doha, Qatar, June 2012

"The future of Anesthesia Education for Generation Y"
"Basics of Ultrasound for Regional Anesthesia"

 Department of Anesthesia and Critical Care Medicine, University of Zimbabwe. Harare, Zimbabwe, June 2012

> "Ultrasound guided anesthesia for the lower limb" "Ultrasound guided regional anesthesia for the upper limb"

"Ultrasound guided vascular access"

Maynes, J

. Ophthalmology Grand Rounds. Toronto, October 2011

"Neurotoxicity of Anaesthetics in the the Paediatric Population"

Dental Research Day. Toronto, February 2012

"Effects of Anaesthetics on the Young"

• St. Michael's Hospital, Toronto, February 2012

"Effects of Anaesthetics on the Mitochondria"

Mazer, D

 Capital City Conference of the German Society of Anesthesiology and Intensive Care Medicine. Berlin, Germany September 2011

"The bleeding patient after cardiac surgery – how to treat?"

Meeting of the Asian Society of Cardiothoracic Anesthesia.
 Taipei, Taiwan, October 2011

"Transfusion complications and transfusion guideline in cardiac surgery"

"Coagulation management in cardiac surgery: HIT and heparin resistance"

"Hyperglycemia during cardiac surgery"

ASA Annual Meeting. Chicago, IL, October 2011

"New hemostatic agents - panel on blood management"

Critical Care Canada Forum. November 2011

"Sedation – The Basics – Mechanisms, Methods and Current Approaches: Procedural Sedation – The Essentials"

McCartney, C

 Regional Anesthesia and Pain Medicine 2011. Toronto, September 2011

> "Continuous Femoral Nerve Block for Total Knee Arthroplasty"

"Ultrasound workshop"

 Ultrasound for Every Anesthesiologist. Chicago, Illinois, October 2011

"Ultrasound for Femoral, Saphenous and Lumbar Plexus Block"

"Ultrasound for supraclavicular and lumbar plexus block"

 Undergraduate Lecture, Department of Human Biology, University of Toronto. October 2011

"Biology of Pain"

 Pain Management Conference 2011. Toronto, November 2011

"Pain Management Across the Continuum: Bridging the Gap from Acute Care to Rehabilitation"

 Visiting Professor, Radboud University, Nijmegen, Netherlands, November 2011

"Local Infiltration Analgesia for Total Knee Arthroplasty"

• Ski and Scan 2012. Banff, Alberta, February 2012

"Interscalene, Supraclavicular, Cervical Plexus and Suprascapular Blocks"

"Practical Applications of Ultrasound"

• Holland Centre Preceptorship. Toronto, April 2012

"Continuous peripheral Nerve Blocks: Principles and Practice"

 International Symposium for Spinal Sonography. Hong Kong, China, March 2012

"Evidence Base for Ultrasound for Upper Extremity Blocks" "Abdominal Wall Blocks"

"Basic Neuraxial Techniques"

"Paravertebral and Thoracic Epidural Techniques"

American Society of Regional Anesthesia Annual Meeting.
 San Diego, California, March 2012

"Distal Upper and Lower Extremity Blocks"

"Intensive Truncal and Paravertebral"

 International Symposium for Ultrasound in Regional Anesthesia. Toronto, June 2012

"Understanding nerve stimulation with ultrasound"
"Implementing Ultrasound Guided Regional Anesthesia
in Clinical Practice"

McCluskey, S

 UHN Emergency Medicine Conference. Toronto Convention Centre, Toronto, October 2011

"Coumadin, Prothrombin Complex Concentrates and UHN Experience"

• Anesthesia Assistants Day. Toronto, November 2011

"Blood Conservation, What is it and why do it"

 Transfusion Medicine Grand Round. University of Toronto, Toronto, November 2011

"Perioperative Blood Conservation: How am I going to get my elective surgery transfusion rates down?"

 Ontario Transfusion Coordinators Meeting. Toronto, November 2011

"Perioperative Blood Conservation. How do I sell a good thing"

 Caribbean Neurological Association Symposium and Workshop. Montego Bay, Jamaica, February 2012

"Keynote Address: Perioperative Blood Conservation Strategies"

 Best Practice in General Surgery, Early Recovery After General Surgery Guidelines. Toronto, February 2012

"Perioperative Fluid Management for the General Surgical Patient"

 UHN, Anesthesia Departmental Research Rounds. Toronto, March 2012

"Fluid Management in Deceased Donor Renal Transplants"

Anesthesia Grand Rounds, UHN – MSH Combined Rounds.
 Toronto, April 2012

"Albumin: The colloid before evidence based medicine"

Toronto Anesthesia Symposium. Toronto April 2012
 "Crvstalloids: It in the baa"

 Ontario Society of Clinical Perfusion Meeting. Mississauga, May 2012

"Perioperative Blood Conservation in Cardiac Surgery: Is a unit of blood that bad"

McDonnell, C

• Canadian Association of Paediatric Health Centres (CAPHC). Toronto, August 2011

> "Paediatric Opioid Safety: Education, Knowledge Translation and Implementation Workshop"

- · Canadian Pediatric Anesthesia Society. Toronto, November 2011
 - "A Quality Program for Pediatric Anesthesia in Canada"
- Institute for Safe Medication Practices Canada. Toronto, November 2011

"Tenfold Medication Errors: The Elephant in the Paediatric Hospital"

• Department of Anesthesia, Toronto East General Hospital, **Toronto, February 2012**

> "Opioid and tenfold medication error in pediatric hospital practice"

• Department of Anesthesia, Humber River Regional Hospital, Toronto, February 2012

> "Opioid error in pediatric hospital practice: Anything in it for adults too?"

 Department of Anesthesia, Sunnybrook Health Sciences Centre, Toronto, March 2012

> "Opioid and tenfold medication error in pediatric hospital practice: lessons for adults too?"

• Department of Anesthesia, Mount Sinai Hospital, Toronto, **April 2012**

> "Departmental M&M programs: how to affect clinical change"

• Department of Anesthesia, St Joseph's Health Centre, Toronto, April 2012

> "Opioid and tenfold medication error in pediatric hospital practice"

• International Conference on Opioids. Boston, USA, June 2012

"Latest evidence and research findings from studies describing opioid error, new approaches to monitoring PCA-opioid efficacy and QI initiatives to improve opioid safetv"

· Canadian Anesthesiology Society Annual Meeting. Quebec, June 2012

"Papers That Have Changed My Practice"

· Hospital Grand rounds, Toronto East General Hospital, Toronto, June 2012

"Opioid Error in Hospital Practice"

University of Toronto Patient Safety Centre. QA/QI/QED.

McHardy, P

- Anaesthetic Practice Conference, Toronto, November 2011 "Ultrasound Workshop"
- · Banff Ski and Scan Conference. Banff, Alberta, February 2012

"Ultrasound Guided Neuraxial Anesthesia"

• The American Society of Regional Anesthesia Annual Meeting. San Diego, USA, April 2012

"Advanced Ultrasound Workshop"

• Canadian Anesthesiologist's Society Annual Meeting. Quebec City, Quebec, June 2012

"CAS Basic Lower Limb Ultrasound Workshop"

 International Society for Ultrasound Guided Regional Anesthesia. Toronto, June 2012

"Workshops on Ultrasound for Regional Anesthesia"

McKnight, D

 Integrity in Research Workshop, Graduate Student Seminar, Faculty of Medicine, University of Toronto, Toronto, October/November 2011

"Ethical Conduct of Research — what can go wrong"?

. Conflict of Interest: Academic & Industry Faculty of Medicine Research Office Workshop: University of Toronto, Toronto, November 2011

"Research Ethics and Oversight"

 Anesthesia Practice 2011, Continuing Education, Department of Anesthesia, University of Toronto, November 2011

> "Loyalty and Obligation: Ethical Aspects of Duty to Report"

- Family Medicine Rounds, Credit Valley Hospital, November 2011 "Physicians and Relations with Industry"
- PG pre-accreditation Workshop, University of Toronto, **Toronto, December 2011**

"What to prepare for the surveyors"

- PG Faculty Development, University of Ottawa, Ottawa, March 2012 "Professionalism Regained: A Practical Guide to Professionalism Remediation"
- Clerkship Directors Meeting, Canadian Conference on Medical Education. Banff, Alberta April 2012

"Professional Transitions in Medical Education: approaches to Students in Trouble"

 Canadian Anesthesiologist's Society Annual Meeting. Quebec City, Quebec, June 2012

> "Privacy & Confidentiality and the Ethics of Teaching in Anesthesia"

· Faculty Development program. Mississauga Academy of Medicine, 2011-12

> "Faculty Orientation: How do we teach professionalism?" "Teaching and Learning Professionals Behaviour: Helping Faculty to be good role models — Going beyond role modelling"

McNaught, A

· Obstetric Anaesthesia Update. Women's College Hospital, **Toronto, November 2011**

"Cardiac Arrest in the Pregnant Patient"

Meineri, M

. The Hospital for Sick Children, Department of Anesthesia **Grand Rounds. Toronto, September 2011**

> "Perioperative Interactive Education Website: e-learning for the anesthesiologist"

Intraoperative Transesophageal Echocardiography
 Advanced Course, Italian Society of Anesthesia, Analgesia
 and Intensive Care, Cardiovascular and Thoracic
 Anesthesia Session. Bergamo, Italy, September 2011

"TEE for Endovascular procedures: assessment of results"

"Real Time 3D TEE: introduction to the technology"

"Real Time 3D TEE: mitral valve and left ventricle"

"Real Time 3D TEE: aortic valve"

 Annual Perioperative Transesophageal Echocardiography Symposium. Toronto, November 2011

"TEE Percutaneous Valve Implantation"

"Workshop: FOCUS Transthoracic Echocardiography"

 Ontario Anesthesia Assistants Professional Development Day. Toronto, November 2011

"Perioperative Management of Pace Makers"

• Toronto Anesthesia Meeting. Toronto, April 2012

"Workshop: FOCUS TTE"

 Society for Cardiovascular Anesthesia, Thoracic Anesthesia Meeting. Boston, Massachusetts, USA, April 2012

"Workshop: Lung Ultrasound"

"BPLD: Thoracothomy in the opioid tolerant patient"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Workshop: PICC Line insertion" "Workshop: FOCUS TTE"

Morgan, P

 World Congress of Anesthesiologists. Buenos Aires, Argentina, March 2012

"OR efficiency following implementation of the Safety Checklist"

"Prospective analysis of the incidence of postoperative nausea and vomiting (PONV) in an ambulatory surgical facility"

Morningstar, B

 Fluid Optimization Working Group, Evidence-Based Perioperative Medicine Conference. London, United Kingdom, July 2011

"Current Status of Fluid Management"

 Brantford General Hospital, Anesthesia Rounds. Brantford, September 2011

"Perioperative Fluid Management"

National Association of Perioperative Nurses Convention.
 Toronto, October 2011

"Goal Directed Fluid Therapy"

 Perioperative Services Rounds. St. Michael's Hospital, Toronto, November 2011

"A Modern Approach to Perioperative Fluid Management"

- Combined Rounds. Department of Anesthesia and OB/ GYN, Trillium Hospital, Mississauga, Ontario, January 2012
 - "A Modern Approach to Perioperative Fluid Management"
- Anesthesia Grand Rounds. Toronto East General Hospital, Toronto, January 2012

"A Modern Approach to Perioperative Fluid Management"

Best Practice in General Surgery (BPIGS) Workshop.
 University of Toronto, Toronto, February 2012

"Enhanced Recovery after General Surgery: Anesthesia Guidelines"

 Anesthesia Grand Rounds. Sunnybrook Health Sciences Centre, Toronto, June 2012

"Enhanced Recovery after General Surgery"

Murphy, P

- Making Your Mark National Anesthesia Review Course.
 BMO Learning Center, Scarborough, Ontario, March 2012
 "Thoracic Anesthesia"
- Managing Cardiac Catheterization Laboratory

Catastrophes. Update in Cardiopulmonary Bypass. Aspen/ Snowmass, Colorado, USA, March 2012

"Pro/Con Debate: Hypothermia for In-Hospital Cardiac Arrest"

Niazi, A

- Regional Anesthesia Pain Medicine. Toronto, October 2011
 "Blocks above the Clavicle"
- Northern Ireland Society of Anaesthetists. Derry, Northern Ireland, November 2011

"Ultrasound and Anesthesia: Looking to the Future"

 Faculty Development Day. University of Toronto, Toronto, November 2011

"The use of an interactive 3D anatomic model to improve initial performance in ultrasound scanning of the spine"

 International Society of Ultrasound in Regional Anaesthesia. Toronto, June 2012

"Regional Anesthesia in Awake or Asleep Patients: A Debate"

Orser, B

- Ontario Medical Association. Toronto, Canada, September 2011
 "The mechanisms of general anesthetics"
- University of Western Ontario, London, October 2011
 "Anesthesiologists as leaders in Patient Safety"
- Dept of Anesthesia, University of Western Ontario, London, October 2011

"Memory loss and anesthesia"

 Annual Retreat of the Dept of Physiology. University of Toronto, Toronto, October 2011

"The Interface between basic science and clinical studies"

- Critical Care Conference. Toronto, November 2011
 "Mechanisms of Sedatives: Insights at the Molecular
 - Level"
- The Neuroscience & Mental Health Sleep Symposium.
 Hospital for Sick Children, Toronto, December 2011

"The Perfect Storm: Memory blocking GABAA Receptors in acute illness"

 Neuroscience Seminar Series. Queen's University, Kingston, January 2012

"Memory Blocking Anesthetics"

• Li Ka Shing Knowledge Institute, Toronto, March 2012

"Inflammation and Memory Loss: Mechanisms and Treatment Strategies"

- Resident Seminar. University of Ottawa, Ottawa, March 2012
 - "Research and your Career in Anesthesia"
- . Drug Safety in Anesthesia. Heart Institute, University of Ottawa, Ottawa, March 2012

"Medications: From Errors to Shortages. What can you do?"

• University of Ottawa, Ottawa, March 2012

"Anesthesia and Inflammation-induced memory loss: Folie a deux"

 Professor Rounds. University of Toronto, Toronto, March 2012 "Memory Loss Associated with Anesthesia and Illness"

· Neuroscience Rounds. Sunnybrook Research Institute, Toronto, March 2012

"Memory loss associated with anesthesia"

· Research-in-Progress. Dept. of Anesthesia, University of Toronto, May 2012

"Reversing memory loss associated with inflammation"

• Summer student presentations. Sunnybrook Research Institute, Toronto, June 2012

"Anesthetic related research"

- Anesthesiology/Sleep Disorders Workshop. The Fields Institute, Toronto, June 2012 "Atypical GABAA receptors regulate memory blocking properties of anesthetics"
- · Salzberg Seminar on Anesthetic Neurotoxicity and Neuroplasticity. Salzburg, Austria, June 2012

"Persistent Memory Deficits after Anesthesia"

 Department of Anesthesia Research Day. University of British Columbia, British Columbia, June 2012

> "Desirable and Undesirable memory loss associated with anesthesia"

Peliowski, A

• Pediatric Anesthesia Conference. Toronto, November 2011 "Pollution in the Operating Room"

Peng, P

• Society for Pain Practice Management. San Diego, California, July 2011

"Third occipital nerve-ultrasound guided injection"

"Ilioinguinal nerve -ultrasound guided injection"

"Ultrasound-guided injection-Basic and Knobology"

• Excellence in Pain Medicine Workshop, American Society of Regional Anesthesia and Pain Medicine. Chicago, Illinois, September 2011

> "Ultrasound guided injection for musculoskeletal system" "Ultrasound guided injection for peripheral and axial structures"

· American Anesthesiology Society Meeting. Chicago, Illinois, October 2011

> "Ultrasound guided injection in larger joints" "Fluoroscopic and ultrasound guided sympathetic nerve block"

 American Society of Regional Anesthesia Society Fall Meeting. New Orleans, Louisiana, November 2011

"Cervical and lumber spine sonoanatomy and injection

 Multidisciplinary Musculoskeletal Ultrasound Symposium in Pain Medicine. Hong Kong, China, December 2011

"Clinical Diagnosis of mixed pain syndrome"

"Ultrasound intervention for Pain"

• Canadian Pain Society Chronic Pain Refresher Course. Toronto, February 2012

Tai Chi in Fibromyalgia

"Tai Chi in Chronic Pain"

 Canadian Pain Interventional Course, Canadian Pain Society, Hamilton, March 2012

"Ultrasound for Pain Medicine"

 Dubai Anaesthesia Conference. Dubai Health Care City, Dubai, United Arab Emirates, March 2012

"Advance in Ultrasound for Pain Medicine"

 Convergence Pelviperineal Pain Congress. Nimes, France, **April 2012**

"Ultrasound-guided injection for pelvic pain"

 International Pain Congress. Middleburg, The Netherlands, **April 2012**

"Basic for the ultrasound scan"

"Ultrasound-guided injection for pelvic pain block"

Canadian Pain Society. Hamilton, April 2012

"Ultrasound guided injection for Musculoskeletal Pain"

 Ontario Medical Association Physical Medicine and Rehabilitation Section Annual Meeting. Toronto, May 2012

"Ultrasound-guided intervention for musculoskeletal pain"

 Ontario Medical Association Chronic Pain Section Annual Meeting, Toronto, May 2012.

"Controversies in paravertebral block-cons"

 Annual International Symposium of Ultrasound for Regional Anesthesia and Pain Medicine. Toronto, June 2012

"Ultrasound-guided shoulder injection"

"Innovation in Ultrasound- High Intensity Focused Ultrasound (HIFU)"

"Nerve block for back pain procedures"

"Nerve block for lateral femoral cutaneous nerve and pudendal nerve"

 Canadian Association of Physical Medicine and Rehabilitation (CAPMR), Toronto, June 2012

> "Ultrasound Guided Musculoskeletal Interventions Bio-Skills Lab"

Perlas, A

 American Society of Anesthesiology Annual Meeting. Chicago, Illinois, October 2011

> "Evidence-based review of ultrasound-guided neuraxial blocks"

 University of Toronto Regional Anesthesia and Pain Medicine Hands-on Workshop. Toronto, October 2011

"Distal Sciatic Nerve/Ankle blocks"

 University Health Network, Toronto Western Hospital, Advanced Ultrasound for Regional Anesthesia Workshop. Toronto, November 2011

"Ultrasound for Neuraxial Anesthesia"

 Annual Regional Anesthesia Meeting and Workshops. San Diego, California, March 2012

"Ultrasound physics and applied knobology"

 WFSA World Congress of Anesthesiologists. Buenos Aires, Argentina, March 2012

"Neuraxial Ultrasound. A new frontier Workshop"

 Queensville Anesthesia Lecture Series. Newmarket, April 2012

"Transverse Abdominis Plane Blocks"

Credit Valley Hospital Anesthesia Grand Rounds.
 Mississauga, April 2012

"Transverse Abdominis Plane Blocks"

 University Health Network Nursing Grand Rounds. Toronto Western Hospital, Toronto, June 2012

"My patient atewhat? Preoperative fasting guidelines and gastric sonography"

 Annual International Symposium of Ultrasound for Regional Anesthesia and Pain Medicine. Toronto, June 2012

"Can ultrasound or electrical nerve stimulation decrease intravascular injections and nerve injury?"

"Most significant UGRA publications in the past 3 years"

Prabhu, A

Anesthesia Assistant CPD Day. Toronto, November 2012
 "Preoperative Blood Conservation"

Prasad, A

Regional Anesthesia and Pain Medicine Annual Meeting.
 Toronto, October 2011

"Peripheral nerve blocks in upper limb"

 Annual International Symposium on Ultrasound for Regional Anesthesia. Toronto, June 2012

"Acquiring Knowledge: Where to find useful resources?"

Riazi, S

 Annual International Symposium of Ultrasound for Regional Anesthesia and Pain Medicine. Toronto, Ontario, June 2012

"Ultrasound-guided peripheral nerve blocks in anticoagulated patients-debate"

Rigamonti, A

 Spedali Civili di Brescia. University of Brescia, Italy, November 2011

"Transcranial Doppler Sonography: Principles and Applications"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Transcranial Doppler (TCD): Overview and Hands-on Workshop. Keynote speaker and co-organizer"

Roscoe, A

- Indian Association of Cardiothoracic Anaesthetists' annual echocardiography meeting. Bangalore, India, August 2011
 "Right ventricular dysfunction"
- Association of Cardiothoracic Anaesthetists' (UK) Autumn Meeting. Loughborough, UK, November 2011

"Focused Assessed Transthoracic Echocardiography workshop"

 University Hospitals of Leicester Transoesophageal Echocardiography course. Leicester, UK, February 2012

"Physics of ultrasound"

 World Congress of Anaesthesiologists' Meeting Cardiothoracic Satellite Symposium. Iguazu Falls, Argentina, March 2012

"Lung transplantation"

 World Congress of Anaesthesiologists' Meeting. Buenos Aires, Argentina, March 2012

"Anaesthesia for heart transplantation & VADs"

 Association of Cardiothoracic Anaesthetists' (UK) Spring Meeting, Manchester, UK, April 2012

"Prophylactic tracheostomy for lung resection"

 Society of Cardiothoracic Surgeons' (UK) Annual Meeting, Manchester, UK, April 2012

"Predictors of TV repair failure"

 Society of Cardiovascular Anesthesiologists' Annual Meeting. Boston, USA, April 2012

"Lung transplantation PBLD"

Salman, A

• Toronto Anesthesia Symposium. Toronto, April 2012

"ACLS Review. What's New"

"Ultrasound Of Lumbar Spine For Neuraxial Anesthesia Workshop"

Sarmah, A

 WFSA World Congress of Anaesthesiologists. Buenos Aires, Argentina, March 2012

> "Electronic E-learning prior to Undergraduate Simulation and Crisis Management- Development of an Online Educational Tool"

Siddiqui N

- Regional Anesthesia Day. Department of Anesthesia, University of Toronto, Toronto, September 2011
 - "Aseptic technique for regional anesthesia"
- Canadian Surgery Forum (International Meeting). London, September 2011

"Peri-Operative Fluid Management"

 Annual Obstetric Anesthesia Conference. Mount Sinai Hospital, Toronto, September 2011

"Ultrasound For Vascular Access Workshop"

 Anesthesia Practice. University of Toronto, Department of Anesthesia, Toronto, November 2011

> "Ultrasound For Peripheral Blocks, Neuroaxial Blocks And Vascular Access Workshop"

Aga Khan University, Pakistan, November 2011

"Hands On Ultrasound Demonstration Of Neuraxial

 University of Toronto's Enhanced Recovery after Surgery Workshop, Toronto, February 2012

"Perioperative pain and fluid management"

. Annual Shields Research Day. Department of Anesthesia, University of Toronto, Toronto, May 2012

> "A comparison of ultrasound versus digital palpation guided Cricothyrotomy in subjects with difficult to identify anatomical landmarks"

 Society of Obstetric Anesthesia and Perinatology Annual Meeting. Monterey, California, May 2012

> "Primary Postpartum Hemorrhage At Mount Sinai Hospital: A Retrospective Quality Assurance Of Its Clinical Diagnosis And ICD-Coding"

"Quality And Safety Of Neuraxial Labor Analgesia At A High Volume Tertiary Care Obstetric Unit - A Prospective Observational Study"

"Comprehensive Ultrasound Workshop"

Silverman, G

. Boundless Campaign. Office of Advancement, University of Toronto, Toronto, Ontario, February 2012

"Anesthesia Initiatives In Ethiopia"

• WFSA World Congress of Anesthesiologists'. Buenos Aires, Argentina, March 2012

"Anesthesia Education In Ethiopia"

• Dalla Lana School of Public Health, Discovering Global Health Course. Toronto, Ontario, March 2012

"Anesthesia And Surgery In Low Resource Environments"

 CASIEF Global Outreach Course: Anesthesia in Challenging Environments. Halifax, Nova Scotia, May 2012 Planning Committee and Course Faculty

Slinger, P

 South Asian Association for Regional Cooperation, Association of Anaesthesiologists Meeting. Bangalore,

"One-lung Ventilation Post-thoracotomy Analgesia"

• Simposio Internacional de Anestesia. Sao Paulo, Brazil, September 2011

"Ventilation in Anesthesia: Where are we going?"

- Visiting Professor, Department of Anesthesia, Dalhousie University, Halifax, September 2011
- Congress of Thoracic Anesthesia. China-Japan Friendship Hospital, Beijing, China, September 2011

'Recent Advances in Thoracic Anesthesia: Anesthesia for lung Transplantation"

· American Society of Anesthesiologists Annual Meeting. Chicago, Illinois, October 2011

> "Thoracic Anesthesia Workshop: Double-lumen Tubes vs. Bronchial Blockers for Lung Isolation"

• Regional Anesthesia and Pain Management Symposium and Workshops. Toronto, Ontario, October 2011

"Thoracic Epidural Analgesia"

· Annual Meeting of the Difficult Airway Society. Nottingham, UK. November 2011

"Lung Isolation in the Patient with a Difficult Airway"

 Scottsdale Anesthesia Meeting, Scottsdale, Arizona, November 2011

> "Perioperative Management of the Patient with Severe Pulmonary Disease"

"Lung Isolation Techniques and One-lung Ventilation"

"Mediastinal Masses and Lower Airway Problems"

"Post-Thoracotomy Anesthetic Management"

• Dannemiller Review Course in Anesthesiology. San Antonio, Texas, December 2011

"Preoperative Assessment for Pulmonary Resection"

"Lung Isolation for Thoracic Surgery"

"Management of One-Lung Anesthesia"

"Anterior Mediastinal Masses and Lower Airway Problems"

· Anesthesia Risks and Complications Symposium. Jeddah, Saudi Arabia, December 2011

"Pitfalls of Lung Isolation and Management"

"Complications of One-Lung Ventilation"

"Post-Thoracotomy Complications"

Post Graduate Assembly in Anesthesiology, New York State Society of Anesthesiologists, New York, December 2011

"Lung Protective One-Lung Ventilation"

"Does it Make a Difference?"

"Fluid Management During Thoracic Surgery"

 University of British Columbia Critical Care and Anesthesia Summit. Whistler, British Columbia, February 2012

> "Emergency Lung Isolation, Avoiding Complications in Thoracic Anesthesia, Pulmonary Hypertension for Non-Cardiac Surgery"

 Egyptian Cardiothoracic and Vascular Anesthesia Society Annual Meeting. Cairo, Egypt, February 2012

> "Lower Airway Emergencies, Perioperative Lung Protection in Thoracic Anesthesia"

• International Conference on Cardiothoracic Anesthesia. Iguassu Falls, Argentina, March 2012

> "Preoperative Assessment for Pulmonary Resection; Intravenous Anesthesia is not Superior to Volatile Anesthesia for Thoracic Surgery"

· World Congress of Anaesthesiology. Buenos Aires, Argentina, March 2012

> "Lessons from Lung Transplantation for Everyday Anesthesia" "Anesthesia for Lung Transplantation"

"Thoracic Anesthesia"

- Annual Toronto Anesthesia Symposium. Toronto, April 2012 "The Anesthesiologist's Role in Preventing Postoperative Pulmonary Complications"
- · Society for Cardiothoracic Surgery, Association of Cardiothoracic Anaesthetists Combined Meeting. Manchester, UK, April 2012

"Anaesthesia for Airway Surgery"

"Lung Injury in Thoracic Surgery"

 Society for Cardiovascular Anesthesiologists, Thoracic Anesthesia Symposium. Boston, Massachusetts, April 2012

"Intraoperative Lung Injury in Thoracic Anesthesia"

 Harvard Anesthesia Update. Boston, Massachusetts, May 2012

"Recent Advances in Management of One-Lung Ventilation"

"Lung Isolation in the Patient with a Difficult Airway"

International Anesthesia Research Society annual meeting.
 Boston, Massachusetts, May 2012

"Perioperative Lung Protection Strategies: Are they worth the trouble?"

 Dannemiller Review Course in Anesthesiology. San Antonio, Texas, May 2012

"Preoperative Assessment for Pulmonary Resection"

"Lung Isolation"

"One-lung Ventilation"

"Mediastinal Masses and Lower Airway Problems"

"Post-Thoracotomy Anesthetic Management"

 European Association of Cardiothoracic Anesthesiologists Annual Meeting. Amsterdam, Netherlands, May 2012

> "Anesthesia for Lung Transplantation, Teamwork in Preoperative Assessment for Pulmonary Resection Surgery"

- Visiting Professor. Department of Anesthesiology, Amsterdam Medical College. Amsterdam, Netherlands, May 2012
- Dannemiller Review Course in Anesthesiology. Chicago, Illinois. June 2012

"Preoperative Assessment for Pulmonary Resection"

"Lung Isolation"

"One-lung Ventilation"

"Mediastinal Masses and Lower Airway Problems"

"Post-Thoracotomy Anesthetic Management"

Spadafora, S

The International Conference on Residency Education.
 Quebec City, September 2011

"The good, the bad and the ugly of accreditation: Preparing pre-survey questionnaires workshop."

"Remediation of residents in difficulty: A retrospective 10 year review of the experience of a postgraduate board of examiners"

"Best Practices in remediation of residents in difficulty"

• Faculty of Medicine Think Tank on Integrated Medical Education: Building on Our Success. Toronto, September 2011

"Group 4: Measuring Our Impact"

 Council of Health Sciences Education Subcommittee (CHSES) Retreat. Toronto, December 2011

> "Promote A New Professionalism That Uses Competencies As The Objective Criteria"

Annual Anesthesia Interest Group Information Session.
 Toronto, February 2012

"The opportunities being an anesthesiologist in a teaching centre has given from clerkship coordinator to Vice-Dean Postgraduate Education"

• Making a Mark Conference. Toronto, February 2012

"Oral Examination Role Play: An Approach To Avoiding Common Difficulties In Oral Examination Performance"

 Canadian Conference on Medical Education. Banff, Alberta, April 2012

> "Tips and Tricks in Implementing Accreditation B Standards into all Family Medicine & Royal College Programs Workshop"

"It's About T-IME: Implementing the Toronto Integrated Medical Education (T-IME) Initiative"

"Walking The Talk: Developing A Multi-Source Feedback Instrument For The Leadership Capabilities Of Residency Program Directors"

Steel, A

 Management Skills in Intensive Care - Advanced Training Course in Intensive Care (ATCIC) for the European Society of Intensive Care Medicine. European Society of Intensive Care Medicine Annual Congress. Berlin, Germany, October 2011

"Building a Business Case"

"Managing the Difficult Trainee"

Visiting Professor Rounds, Kuwait Cancer Control Centre.
 Kuwait City, Kuwait, October 2011

"Ventilation Strategy"

"Management of Shock"

"Quality of Care in the Intensive Care Unit"

- Toronto Anesthesia Symposium. Toronto, April 2012 "Update on Perioperative Shock."
- Society of Cardiovascular Anesthesiologists Thoracic Anesthesia Symposium. Boston, Massachusetts, April 2012

"Pathophysiology of Acute Lung Injury"

 Toronto General Hospital General Surgical Division Symposium on Delirium. Toronto, June 2012

"Delirium and Critical Care Response Teams"

Tarshis, J

 The Annual University of Toronto Centre for Patient Safety Symposium. Toronto, Ontario, November 2011

"Teamwork and Situational Awareness: why it's important and how to teach it"

 Royal College of Physicians and Surgeons of Canada Simulation Summit. Montreal, Quebec, November 2011

"Debriefing High Fidelity Simulation Scenarios"

Taylor, K

 Congenital Cardiac Anesthesia Society. Tampa, Florida, USA, February 2012

"Non-invasive cardiac output monitoring in pediatrics"

 Canadian Anesthesiologists Society International Education Fund (CASIEF). Halifax, Nova Scotia, May 2012

"Getting Used to Halothane"

"Pediatric Drawover anesthesia"

Tousignant, C

ASA meeting. October 2011

"Assessment of RV function and TV"

Tumber, P

- · Regional Anesthesia and Pain Medicine. Toronto, October 2011
 - "Perioperative Pain Management for Chronic Pain Patients"

 "Patient-Controlled Oral Analgesia Workshop"
- Physical Medicine and Rehabilitation Resident Workshop.
 Hillcrest Center, Toronto, January 2012

"Basics of Interventional Pain Management"

 The Canadian Pain Society Annual Chronic Pain Refresher Course. Toronto, February 2012

"Tertiary Chronic Pain Care"

 University Health Network, Toronto Western Hospital,
 Department of Anesthesia and Pain Management Grand Rounds, Toronto, March 2012

"Update in Acute Pain: Intravenous Lidocaine Infusion"

 Annual University of Toronto Undergraduate Interfaculty Education in Pain. Toronto, March 2012

"Pain: Putting the person at the center"

 Canadian Geriatrics Society/University of Toronto Department of Family Medicine, Toronto Rehabilitation Institute. Toronto, March 2012

"Chronic Pain Management in the Elderly. The Five Weekend Care of the Elderly Certificate Course"

 Canadian Interventional Pain Course. Canadian Pain Society, Hamilton, March 2012

> "Ultrasound for Peripheral Nerve Blocks in Chronic Pain Management"

 Canadian Association of Physical Medicine and Rehabilitation Annual Meeting. University of Toronto, June 2012

> "Caudal and Lumbar-median branch blocks. Ultrasound-Guided Musculoskeletal Interventions"

 Annual International Symposium on Ultrasound and Regional Anesthesia. University of Toronto, Toronto, June 2012

"Small Nerves of the Trunk, Groin & Lower Limb, & Pudendal Nerve"

"Muscle (Quadratus Lumborum, Psoas & Piriformis) Injection Technique"

van der Vyver, M

Department of Anesthesia Faculty Development Day.
 Toronto, November 2011

"Using audience response system to the maximum"

 Holland Orthopaedic and Arthritic Centre. Overview of continuous peripheral nerve blocks; infusion strategies.
 Toronto, December 2011

"Preceptorship program for continuous nerve block"

 Holland Orthopaedic and Arthritic Centre. Overview of continuous peripheral nerve blocks; infusion strategies. Toronto, April 2012

"Preceptorship program for continuous nerve block"

Van Rensburg, A

 South African Society of Anesthesiologists Annual Meeting. Cape Town, South Africa, February 2012

"Anesthesia for Lung Transplantation"

Vegas, A

 Christian Medical College, Vellore, India, August 2011
 "2D and 3D Echocardiography for Cardiac and Non Cardiac Surgery"

 National TEE Workshop Narayana Hrudayalaya Hospital, Bangalore, India, August 2011

"3D TEE"

 Annual Perioperative Transesophageal Echocardiography Symposium. Toronto, November 2011

"Aortic Valve Sparing Root Surgery"

 Making a Mark, Senior Revision Course. Toronto, February 2012

"Adult Congenital Heart Disease"

 Toronto General Hospital, University Health Network, Department of Anesthesia and Pain Management, Grand Rounds. Toronto, May 2012

"Echocardiography in Non-cardiac Surgery"

Venkatraghavan, L

University of Toronto Anesthesia Fellow Lecture Series.
 Toronto, September 2011

"Memory and Anesthesia - a brief Primer"

- Ontario Anesthesia Meeting. Toronto, September 2011
 "Plenary Lecture session: Depth anesthesia and postoperative cognitive dysfunction in elderly."
- American Society of Anesthesiologists Annual Meeting. Chicago, Illinois, October 2011

"Basic adult fibreoptic workshop"

• Ibn Sina Hospital, Kuwait City, Kuwait, June 2012

"Anesthesia for Awake craniotomy"

Wasowicz, M

 International Congress of Polish Society of Anaesthesiology and Intensive Therapy. Gdansk, Poland, September 2011

> "Deep sedation in the ICU settings. Pro and con debate" "Use of thromboelastography to diagnose coagulation abnormalities in cardiac anesthesia"

"ECMO State-of-the-art. Panel discussion"

 Toronto Addis Ababa Academic Cooperation (TAAAC).
 Department of Anesthesiology, Medical Faculty of Addis Ababa University, Black Lion Hospital. September-October 2011

> "Perioperative management of the patient undergoing thoracic surgery. Principles of Practice of thoracic anesthesia"

"Methods of lung separation. Use of double lumen tubes and bronchial blockers"

"Preoperative assessment of patient with heart disease scheduled for non-cardiac surgery Fiberoptic intubation-tips and pitfalls"

 Toronto General Hospital, University Health Network, Endoscopy Suite. Toronto, November 2011

"Sedation versus monitored anesthesia care"

 European Society of Anaesthesiology, Fall Meeting -Airway Management Workshop. Krakow, Poland, November 2011

"Fiberoptic bronchoscopy and use of double lumen tubes and bronchial blockers"

- Toronto Addis Ababa Academic Cooperation (TAAAC).
 Department of Anesthesiology, Medical Faculty of Addis
 Ababa University, Black Lion Hospital, Ethiopia, April 2012
 "Principles of thoracic anesthesia"
- European Society of Anaesthesiology Committee for European Education in Anaesthesiology. Cardiovascular System Course. Krakow, Poland, April 2012

"Anesthesia of the patient with congenital heart disease"
"Perioperative assessment of patient with cardiac
disease undergoing non-cardiac surgery"

"Echocardiography in anesthesia and critical care. Guidelines and recommendations"

"Anesthesia in the catheterization laboratory"

"Transfusion versus anemia. What does bring the bigger risk?"

"Anesthesia for heart transplantation and in patient who received heart transplantation"

"Section of Cardiovascular Anesthesia of Polish Society of Anaesthesia and Intensive"

• Therapy, Annual Meeting. Krakow, Poland, May 2012

"Postoperative delirium in cardiac surgical patients. Pathophysiology, diagnosis and management" "Postoperative chest tube drainage. What is new, what is old problem?"

"Transesophageal echocardiography in cardiac anesthesia and postoperative care of the cardiac surgical patient"

 International Cardiology Conference. Zabrze, Poland, May 2012

"Cardiogenic shock. Anesthesiologist's point of view"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Post PCI patient and ambulatory surgery. Are experts' opinions good enough?"

Wells, G

• Golf Injuries and Performance Conference. Toronto, March 2012

"The relationship between physical abilities and golf performance. Long-term athlete development for golf, How to design a season training plan for golf"

 Paediatric Rheumatology Academic Half Day. The Hospital for Sick Children, Toronto, May 2012

"Exercise as Medicine for Rheumatology"

• Canadian Pediatric Society Annual Meeting, London, June 2012 "Workshop: Syncope in the Young Athlete"

Wijeysundera, D

Ontario Anesthesia Meeting, Ontario Medical Association.
 Toronto, September 2011

"Pre-op consults: Are they worth it?"

 Anesthesia Grand Rounds. Department of Anesthesia, North York General Hospital, Toronto, December 2011

"Preoperative anesthesia consultations: Potential, reality and opportunities"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Preoperative consultations: Are they necessary?"

Wong, D

Annual Society for Airway Management Scientific Meeting.
 Scottsdale, Arizona, September 2011

"Lung isolation techniques: double lumen tubes and bronchial blockers"

"What is airway competency and how should we measure it?"

 American Society of Anesthesiologists Annual Meeting. Chicago, Illinois, October 2011

"Basic Adult Flexible Fiberoptic Intubation Workshop"
"Preoperative evaluation in obstructive sleep apnea"

• The Difficult Airway Course. Las Vegas, Nevada, November 2011

"Lung isolation techniques: double lumen tubes and bronchial blockers"

"Airway morbidity/mortality outside the OR"

 Southwestern Ontario Anesthesia Meeting Airway Workshop. London, November 2011

"Improving success in fiberoptic intubation"
"Videolaryngoscopy"

NWAC World Anesthesia Convention. Istanbul, Turkey, April 2012

"Mastering the LMA: difficult scenarios and approach to their management"

"Cannot ventilate, cannot ventilate: are you ready for surgical airway"

Toronto Anesthesia Symposium. Toronto, April 2012

"Cannot intubate, cannot ventilate, how will I manage them?"

 Society for Ambulatory Anesthesia Annual Meeting. Miami, Florida, May 2012

"Airway, airway, who's got the airway?"

"So many supraglottic airway devices-which ones should I use?"

Wong, G

Annual Ontario Anesthesia Meeting. Toronto, September 2011

"Guided ultrasound for pediatric neuraxial anesthesia"

Pediatric Anesthesia Conference. Toronto, November 2011
 "Practical problems: TAP blocks versus epidurals"

 Canadian Pediatric Anesthesia Society meeting. Toronto, November 2011

> "Development of a National Pediatric Anesthesia Fellowship Curriculum"

Wong, J

 Grand Rounds. Toronto East General Hospital, Toronto, February 2012

"Stop Smoking for safer surgery: A teachable moment"

Canadian Anesthesiologist's Society Annual Meeting.
 Quebec City, Quebec, June 2012

"Sleep Breathing Disorders: What an anesthesiologist should know"

Co-Chair, Ambulatory Poster Discussion

 Toronto General Hospital, University Health Network, Building a Network of Smoking Cessation Professionals in the General Hospital: A Knowledge Translation Initiative. Toronto, June 2012

"Perioperative Smoking Cessation."

Zhang, H

 National Key Laboratory of Respiratory Diseases. Guangzhou Medical College, Guangzhou, China, August, 2011

"How to write a research grant?"

 International Symposium on Lung Development, Injury Repair, and Regeneration. Guangzhou, China, August, 2011

> "Mechanical stress induced lung fibrosis by epithelialmesenchymal transition (EMT)"

 Institute of Medical Science, University of Toronto, Toronto, February 2012

"Animal models of acute lung injury"

 Lawson Health Research Institute, University of Western Ontario, London, February 2012

"New frontiers in lung injury"

 Department of Intensive Care Medicine and Anesthesiology, Policlinico Universitario A. Gemelli, Università Cattolica del Sacro Cuore, Rome, Italy, February 2012

"ARDS in the ICU"

PEER-REVIEWED GRANTS

Baker, A

2012-2013

National Defence Research and Development Canada.

Title: Clinical Evaluation of Blood Biomarkers for Discrimination of Posttraumatic Stress Disorder and Traumatic Brain Injury Comorbidity.

Amount: \$125,000

Principal Investigator: A Baker

Co-Investigators: N/A

2012-2015

Ontario China Research and Innovation Fund, Ministry of Economic Development and Innovation. Title: Development and Innovation of a Clinical Biomarker for Diagnosis of Outcome Following Mild and Moderate Traumatic Brain Injury Using Endothelial Progenitor Cell Specific Markers.

Amount: \$250,000

Principal Investigator: A Baker

Co-Investigators: N/A

Balki, M

2011-2012

Department of Obstetrics and Gynecology, Mount Sinai Hopital, University of Toronto

Title: Optimizing human myometrial contractions using a combination of uterotonic agents

Amount: \$5,000

Principal Investigator: M Balki

Co-Investigators: John Kingdom, Jose Carvalho

2011-2013

University of Toronto Merit Awards, Department of Anesthesia

Title: Optimizing human myometrial contractions using a combination of uterotonic agents

Funding Amount: \$40,000 Principal Investigator: M Balki Co-Investigators: N/A

2011-2013

Mount Sinai Hospital Foundation, University of Toronto

Title: Optimizing human myometrial contractions using a combina-

tion of uterotonic agents
Funding Amount: \$40,000
Principal Investigator: M Balki

Co-Investigators: N/A

2011-2013

Inaugural SOAP/ Gertie Marx Research & Education Grant

Title: Optimizing contractility in human myometrium using a combination of uterotonic agents: An in-vitro approach to improving treatment options for primary post-partum hemorrhage

Funding Amount: \$50,000 USD Principal Investigator: M Balki

Co-Investigators: N/A

Beattie, WS

2011-2012

Canadian Institutes of Health Research.

Title: PeriOperative ISchemic Evaluation-2 (POISE-2) Trial –

Bridge Funding
Amount: \$100,000

Principal Investigator: PJ Devereaux **Co-applicants:** WS Beattie, D Wijeysundera

2011-2012

Anesthesia Patient Safety Foundation

Title: A prospective observational study to determine the prognostic value of noninvasive computer tomography coronary angiogram for cardiac risk stratification in noncardiac surgery – role of 320 row multidetector computer tomography Amount: \$150,000 USD

Principal Investigator: KE You-Ten

Co-Investigators: N Paul, WS Beattie, M Wasowicz, R

Iwanochko, S McCluskey, DN Wijeysundera

Campbell, F

2008 - 2012

Canadian Institutes of Health Research (CIHR)

Title: Translating Research on Pain in Children (TROPIC) Study.

Amount: \$1,379,952

Principal Investigator: B Stevens

Co-Investigators: B Stevens, S Lee, C Estabrooks, M Barwick, F Campbell, C Chambers, G Cummings, A Finley, C Johnston, BP Kavanagh, M Latimer, S LeMay, P McGrath, J Rashotte, S Scott-Findlay, R Stremler, J Stinson, A Synnes, A Willan, J Yamada

2010 - 2015

Eunice Kennedy Shriver Center

Title: An Internet Cognitive Behavioural Therapy Intervention for

Pediatric Chronic Pain and Disability

Amount: \$3,039,782

Principal Investigator: T Palermo **Co-Investigators:** J Stinson, F Campbell

2010 - 2015

Canadian Institutes of Health Research (CIHR)

Title: The Transition from Acute Postsurgical Pain to Chronic Pain: The Role of Pain Anxiety and Parental Influences in Paediatric

Pain

Amount: \$306,531

Principal Investigator: J Katz

Co-Investigators: F Campbell, L Isaac, A Martin, G Page, J

Stinson

2011 - 2013

Canadian Lung Association (CLA)

Title: Opioid-Induced Respiratory Depression in Children.

Amount: \$48,960.83

Principal Investigator: N Indra

Co-Investigators: R Horner, G Montandon, A Taddio, F

Campbell, M Casas, K Stevens

2011 - 2014

Canadian Institutes of Health Research (CIHR)

Title: Sustainability of a Multidimensional Knowledge Translation Initiative for Procedural Pain in Children.

illidadive for Procedural Palli III Crilidie

Amount: \$822,401

Principal Investigator: BJ Stevens

Co-Investigators: M Barwick, F Campbell , C Chambers , J Cohen, G Cummings , CA Estabrooks , GA Finley , D Harrison, L Holsti , M Latimer , S Lee , S Le May , P McGrath , J Rashotte , C Rosmus , D Sawatsky-Dickson, S Scott, S Sidani, J Stinson, J Squires, A Taddio, F Warnock, A Willan, J Yamada

Carvalho, J

2011-2012

Department of Obstetrics and Gynecology, Mount Sinai Hospital, University of Toronto

Title: Optimizing human myometrial contractions using a

combination of uterotonic agents

Amount: \$5,000

Principal Investigator: M Balki

Co-Investigators: J Kingdom, J Carvalho

Chin, KJ

2011

Canadian Anesthesiologists' Society / Abbott Laboratories New Investigator Award in Anesthesia

Title: Can Anesthesia Trainees Effectively Use Ultrasound Imaging to Facilitate the Performance of Spinal Anesthesia in Patients

with Poorly-Palpable Surface Landmarks?

Amount: \$20,000

Principal Investigator: KJ Chin Co-investigators: A Perlas, V Chan

Choi, S

2012-2013

Canadian Anesthesiologists' Society – Canadian Anesthesia Research Foundation

Title: Optimizing Pain and Rehabilitation After Knee Arthorplasty

Amount: \$20,000

Principal Investigator: S Choi

Co-Principal Investigator: CJL McCartney

Co-Investigator: JE Paul

Clarke, H

2009-2014

National Institutes of Health - NIDDK - Operating Grant

Title: University Health Network's application to join the A2ALL Consortium RFA-DK-09-00: Adult to adult living donor liver transplantation cohort study (A2ALL) - 1 U01 DK85563-01

Amount: \$1,500,000

Principal Investigator: DR Grant

Senior/Key Personnel: S Abbey, H Clarke, S Holtzman, J Katz,

G Levy

Other significant contributors: A Oyedele, L Adcock, MJ Phillips, E Renner, N Selzner, A Siegal, G Therapondos

2011-2012

Canadian Society of Plastic Surgeons - Plastic Surgery Educational Foundation

Title: The use of Transversus abdominis plane (TAP) block in autologous breast reconstruction donor site: A randomized, double-blind, placebo- controlled trial.

Amount: \$10,000

Principal Investigator: T Zhong

Co-Investigators: S McCluskey, S Hofer, H Clarke, M Zuberi, L

Jacks

2011-2013

Physicians' Services Incorporated Foundation

Title: The phenomics and genomics of clinically relevant chronic postsurgical pain

Amount: \$170,000

Principal Investigator: H Clarke

Co- Principal Investigators: Z Seltzer, J Katz

Co-Investigators: M Choinière, G Djaiani, WS Beattie, A Paterson, V Rao, M McGillion, J Hunter, J Watt-Watson

Chung, FT

2011

University of Malaya and Malaysia Ministry of Higher Education

Title: Postoperative vascular events in unrecognized obstructive

sleep apnea
Amount: \$52,000

Principal Investigator: CY Wang **Co-Investigator:** F Chung

2011-2013

Health and Health Services Research Fund, Hong Kong

Title: Postoperative vascular events in unrecognized obstructive

sleep apnea

Amount: HK\$980,356

Principal Investigator: M Chan **Co-Investigator:** F Chung

2012-2014

Singapore Innovation Grant

Title: Use of Profox and Pulsox

Amount: \$99,100

Principal Investigator: E Seet Co-Investigator: F Chung

Cuthbertson, BH

2010-2012

Canadian Institutes of Health Research

Title: SuDDICU Study of Selective Decontamination of the digestive tract in Intensive Care Unit (SuDDICU) feasibility study.

Amount: \$198,322 Principal Investigator

Co-Investigators: KE Burns, DJ Cook, PM Dodek, ND Ferguson, JJ Francis, JM Grimshaw, RI Hall, BL Johnston, S Kanji, JC Marshall, L-L A Mcintyre, J Muscedere, L Rose, F Webster, CE

Weijer

2011 - 2012

Australian and New Zealand Intensive Care Foundation

Title: SuDDICU Study of Selective Decontamination of the

digestive tract
Amount: \$80,000

Principal Investigator: Ian Seppelt

International Co-Investigator: BH Cuthberston

Co-Investigator: J Francis, M Campbell, G Bellingan, S Finfer, J

Myberg, I Patterson, J Lipman

2011 - 2012

Royal College of Anesthesia Grant

Title: SuDDICU Study of Selective Decontamination of the

digestive tract in ICU

Amount: \$40,000

International Co-Investigator: BH Cuthbertson

Co-Investigator: J Francis, M Campbell, G Bellingan, S Finfer, J

Myberg, I Patterson, J Lipman

2012 -2016

Canadian Institutes of Health Research

Title: The METS (Measurement of Exercise Tolerance before Surgery) Study: An International Multicentre Prospective Cohort Study of Cardiopulmonary Exercise Testing For Improving Preoperative Risk Stratification for Major Non-Cardiac Surgery. Canadian Institutes of Health Research. Operating Grant.

Amount: \$987,066

Co-Principal Investigators: BH Cuthbertson, DN Wijeysundera **Co-Investigators:** WS Beattie, BL Croal, JT Granton, JS Hoch, M Mamdani, D Mazer, CJ McCartney, P Oh, R Pearse, AJ Smith,

KE Thorpe, HC Wijeysundera

Djaiani, G

2011-2013

MSH-UHN Academic Medical Organization Phase III Innovation Fund.

Title: Reducing Delirium after TAVI Procedures: The Role of

Regional Anesthesia. **Amount:** \$172,072

Principal Investigator: G Djaiani

Co-Investigators: R Katznelson, E Horlyck, C Feindel, M

Meineri, R Styra

Fisher, J

2010-2015

Retina Research Group (RRG) Comprehensive Diabetic Clinical Trials Unit

Title: Non-invasive imaging of retinal metabolism and vascular

function

Amount: \$4,629,195

CIHR Team Co-Investigators: C Hudson, J Flanagan, JA Fisher,

G Trope

2010-2015

Ontario Research Fund for Research Excellence Award, Round 4

Title: Retinal Oxygen Saturation, Blood Flow, Vascular Function and High Resolution Morphometric Imaging in the Living Human Eye

Amount: \$2,478,074

Principal Investigator: C Hudson

Co-Investigators: J Flanagan, JA Fisher, G Trope, R Devenyi,

WC Lam, F Brent, WM Buys, K Bizheva.

2011-2012

Ontario Thoracic Society

Title: Spatial and temporal patterns of cerebrovascular response to hypercapnic stimuli in subjects with, and without, obstructive sleep apnea (OSA)

Amount: \$48,000

Principal Investigator: R Clodagh R

Co-Investigator: JA Fisher

2011-2014

Canadian Institute of Health Research

Title: Assessment of cerebral hemodynamics in children with

sickle cell disease
Amount: \$300,000

Principal Investigator: A Kassner **Co-Investigator**: JA Fisher

Friedman, Z

2011-2012

University of Toronto Anesthesia Department Merit Award (education category)

Title: Challenging Authority in a Crisis Situation: A multi-centre simulation study assessing residents' ability to challenge a staff's decision

Amount: \$40,000

Principal Investigator: Z Friedman

Co-Investigators: N/A

Gagliese, L

2010-2015

Canadian Institutes of Health Research - Operating Grant

Title: Influence of Beliefs about Symptoms on Symptom Intensity, Distress and Patient's Participation in Self-Management

Behaviours in Lung Cancer

Amount: \$243,444

Principal Investigator: D Howell D

Co-Investigators: A Bezjak, G Devins, L Gagliese, N Leighl, G

Rodin, C Zimmermann

2010-2015

Canadian Institutes of Health Research - Operating Grant

Title: A prospective study of psychosocial distress and palliative

care in patients with hematologic malignancies

Amount: \$644,687

Co-Principal Investigators: G Rodin, C Zimmerman **Co-Investigators:** M Minden, J Brandwein, A Schimmer, L

Gagliese, J Jones

2010-2015

Canadian Institutes of Health Research – Operating Grant (5 years)

Title: Managing Cancer and Living Meaningfully: an RCT of an Individual Psychotherapy for the Treatment of Depression in Patients with Metastatic Cancer

Amount: \$773.249

Co-Principal Investigators: G Rodin, S Hales

Co-Investigators: A Donner, L Gagliese, P Kurdyak,M Li, C Lo, M Moore, R Nissim, A Rydall, F Shepherd, C Zimmermann

2011-2013

Canadian Breats Cancer Foundation - Doctoral Fellowship

Title:Pridictors of pain one year after breast cancer surgery:

analysis of age related patterns

Amount: \$75,000

Principal Investigator: L Gauthier

Supervisor: L Gagliese

Hare, G

2010-2012

The Society of Cardiovascular Anesthesiologists

Title: Determining the hemoglobin threshold for hypoxic cellular responses: studies in anemic hypoxia inducible factor (HIF)-ODD-Luciferase Mice

Amount: \$100,000

Principal Investigator: G Hare

Co-Investigators: N/A

2010-2012

The Physicians' Services Incorporated Foundation

Title: B1-Adrenergic antagonists impair murine and human resis-

tance artery function
Amount: \$160,000

Principal Investigator: G Hare

Co-Investigators: N/A

2011-2012

Canadian Anesthesiologists' Society Wynands Research

Title: A Prospective Analysis of Methemoglobin as a Biomarker of Tissue Hypoxia During Acute Hemodilutional Anemia in Patients Undergoing Heart Surgery.

Amount: \$30,000

Principal Investigator: G Hare

Co-Investigators: N/A

Jadad, A

2008-2013

Canadian Institutes of Health Research

Title: CIHR Centre in HIV Prevention Social Research

Amount: \$2,486,100

Principal Investigator: L Calzavara

Investigators: A Adrien, A Getty, A Grace, G Godin, TM Mayers,

M Tyndall, C Worthington, AR Jadad et al

2009-2014

Inclusive Design Institute

Title: Canada Foundation for Innovation

Amount: \$8,070,236

Principal Investigator: J Treviranus

Investigators: AR Jadad, S Diamond, D Fells

2009-2015

Canadian Institutes of Health Research

Title: CIHR Strategic Training Program in the Social Aetiology of

Mental Illness
Amount: \$1,783,890

Principal Investigator: K McKenzie

Co-Investigators: N Samuel, AR Jadad, MA Barwick

2009-2015

Canadian Institutes of Health Research

Title: CIHR Strategic Training Program on Health Care, Technol-

ogy and Place (renewal)
Amount: \$1,950,000

Principal Investigator: PC Coyte

Investigators: G Andrews, R Upshur, RM Baecker, A Bayoumi, K

Boydell, AR Jadad

2010-2013

Canadian Institutes of Health Research

Title: Transition to Survivorship: Translating knowledge into action for testicular and endometrial cancer populations

Amount: \$256,581

Principal Investigator: JM Jones, DM Howell

Co-Investigators: AR Jadad, S Buchman, P Catton, C Earle, S Ferguson, B Fitzgerals, A Gagliardi, M Gospodarowicz, M Harrison, AJ Friedman, M Sharpe, S Urowitz, P Warde, D Wiljer

2010-2013 IDRC

Title: Public eHealth Innovation and Equity in Latin America and

Caribbean (eSac)
Amount: \$1,500,000

Principal Investigator: AR Jadad Co-Investigator: A Cortinois

2010-2015

HRSA-10-231 - Academic Administrative Units in Primary Care

Title: Family Medicine Developing Practice Transformation Capacity in a Family Medicine Academic Administrative Unit (AAU)

Amount: \$1,400,000

Principal Investigator: J Borkan

Co-Investigators: AR Jadad, W Miller, L Adams, P Grundy, C

Eaton

2011-2012

Heart and Stroke Foundation of Canada

Title: Race/ethnicity and the perception of Diabetes and cardiovascular disease risk factors in the context of Canada's Lifestyle and Obesity Guidelines

Amount: \$50,000

Principal Investigator: J L Kuk

Co-Investigators: PG Ritvo, YM Lam, CI Arden, M Hamadeh, AR

Jadad, A. Salmon, S Wharton

Katz, J

2010-2015

Canadian Institutes of Health Research

Title: The Transition from Acute Postsurgical Pain to Chronic Pain: The Role of Pain Anxiety and Parental Influences in Paediatric

Pain

Amount: \$306,530

Principal Investigator: J Katz

Co-Applicants: F Campbell, L Isaacs, AL Martin, G Pagé, J

Stinson

Collaborators: J Wright, D Flora, L Cooper

2011-2014

Workplace Safety and Insurance Board of Ontario

Title: Pre-existing patient factors associated with sensorimotor recovery, chronic pain, and brain plasticity following surgical repair of peripheral nerve injuries

Amount: \$348,273

Principal Investigator: K Davis **Co-Investigators:** D Anastakis, J Katz

2012-2013

Canadian Anesthesiologists' Society- Abbott Laboratories New Investigator Award in Anesthesia

Title: Optimizing Pain and Rehabilitation after Knee Arthroplasty (OPRA)

Amount: \$20,000

Principal Investigator: S Choi

Co-Investigators: J Katz, M Mamdani, J Paul, K Thorpe, CJC

McCartney

2012-2014

Physicians' Services Incorporated Foundation

Title: OPERA (Optimizing pain and rehabilitation after knee

arthroplasty)
Amount: \$141,500

Principal Investigator: CJ McCartney

Co-Applicants: R Brull, S Choi, J Gollish, J Katz, H Kreder, C Gimera, M Mamdani, J Paul, B Pollard, S Rodriguez-Elizalde, B

Safa, K Thorpe, P Stratford

Karkouti, K

UT Department of Anesthesia Clinical Trials

Title: Advance Targeted Transfusion in Anemic Cardiac Surgical Patients for Kidney Protection (ATTACK): A Multicentre Randomized Trial

Amount: \$100,000

Principal Investigator: K Karkouti

Co-Applicants: M Farkouh, D Mazer, M Crowther, D Wijeysun-

dera, C Chan, WS Beattie, T Yau, M Mamdani

Kavanagh, B

2008-2013

Canadian Institutes of Health Research (CIHR)

Title: Therapeutic Potential of Hepoxilin Analogues (Operating Grant)

Amount: \$620,000 Principal Applicant: M Post

Co-Principal Applicant: B Kavanagh

2008-2013

Canadian Institutes of Health Research (CIHR)

Title: Ventilator-Induced Lung Injury: Linking gene activation,

physiology and outcome (Operating Grant) Amount: \$643,000

Principal Applicant: B Kavanagh

Co-Applicant: M Post

2009-2014

Canadian Institutes of Health Research (CIHR)

Title: Preclinical Assessment of Therapeutic Hypercapnia

(Operating Grant) **Amount:** \$563,000

Principal Applicant: B Kavanagh

Co-Investigators: N/A

Matava, C

2011-2012

Department of Anesthesia – University of Toronto

Title: Development and validation of blended eModules for anesthesia clerks

Amount: \$20,000

Principal Investigator: C Matava

Co-Investigators: C Loffelmann, L Bahrey, M Joshi, G Cronin, M

Jariani, I Devito

2011-2012

Innovation Fund - Hospital for Sick Children Toronto

Title: Development of the PediPain app for managing pain in

children

Amount: \$10,600

Principal Investigator: C Matava

Co-Investigators: B Naser, A Peliowski, N Mills, L Palozzi

2011-2012

Innovation Fund - Hospital for Sick Children Toronto

Title: Development of the iLaryngscope. An iPhone based video

intubating device Amount: \$1,650

Principal Investigator: C Matava

Co-Investigators: C Karsli C, G Patterson G

Maynes, J

2012-2013

Rare Diseases Foundation Grant

Title: Effects of Anaesthetics on Phox2B

Amount: \$8,000

Principal Investigator: J Maynes

Co-Investigators: N/A

2012-2013

Rare Diseases Foundation Grant

Title: Anaesthetic Effects on the Mitochondria

Amount: \$8,000

Co-Principal Investigators: JT Maynes, Y Finkelstein

Co-Investigators: N/A

2012-2013

Dept of Surgery

Title: Development of a High Throughput Screening Assay for

Endothelial-Mesenchymal Transition

Amount: \$10,000

Co-Principal Investigators: JT Maynes, J Coles

Mazer, D

2010-2014

CIHR

Title: Steroids in Cardiac Surgery (SIRS) Trial

Amount: \$45,000/year (total study budget 902,756/year)

Site Investigator: D Mazer

Principle Investigators: K Teoh, R Whitlock, S Yusuf

Co-Investigators: N/A

2010-2014

Department of Anesthesia 2011 Merit Award Research Competition

Title: Improving outcomes in cardiac surgery: strategies to

reduce tissue hypoxia

Amount: \$40,000/year

Principal Investigator: D Mazer

Co-Investigators: N/A

2011-2014

Title:Transfusion Requirements in Cardaic Surgery II (TRICSII)

Amount: \$118,822

Co Principal Investigator: CD Mazer, N Shehata

Co-Investigator: N/A

2012-2016

CIHR

Title: The METS (Measurement of Exercise Tolerance before Surgery)An international multicentre prospective cohort study of cardiopulmonary exercise testing for improving preoperative risk

stratification for major non-cardiac Surgery.

Amount: \$987,066

Co- Applicants: DN Wijeysundera, BH Cuthbertson, WS Beattie, VW Chan, BL Croal, JT Granton, JS Hoch , M Mamdani, D Mazer, CJ McCartney, P Oh, R Pearse, AJ Smith, KE Thorpe, HC

Wijeysundera

McCartney, C

2011-2012

Sunnybrook Medical Services AFP 2010-2011 Innovation

Fund:

Title: Identifying and removing barriers to the use of regional

anesthesia for total hip arthroplasty in

Ontario

Amount: \$60,270

Principal Investigator: CJ McCartney

Co-Investigators: F Webster, H Kreder, J Watt-Watson, R

Jenkinson, M Zwarenstein, D Kennedy, A Kiss

2011-2012

European Society of Regional Anesthesia Grant

Title: Improving success rate of continuous peripheral nerve

blocks using a novel coiled catheter

Amount: 10,000 Euro

Co-Principal Investigators: CJ McCartney, C Luyet

2011-2013

University of Toronto, Department of Anesthesia Merit Award

Title: Is there any benefit to adding continuous femoral nerve

block to local infiltration analgesia

for TKA?

Amount: \$40,000 per year for 2 years Principal Investigator: CJ McCartney

2011-2014

Sunnybrook Musculoskeletal Research Group Salary Award

Amount: \$20,000 per annum for 3 years Principal Investigator: CJ McCartney

2012-2013

Canadian Anesthesiologists' Society

Title: OPRA-Optimizing Pain and Rehabilitation after Total Knee

Arthroplasty
Amount: \$20,000

Principal Investigator: S Choi **Co-Investigator:** CJ McCartney

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2012-2014

Physicians Services Incorporated Foundation

Title: OPRA-Optimizing Pain and Rehabilitation after Total Knee

Arthroplasty
Amount: \$141,500

Co-Principal Investigator: S Choi, CJ McCartney

Co-Investigators: J Paul, H Kreder, M Mamdani, K Thorpe, J

Katz, J Gollish, P Stratford

2012-2016

Canadian Institutes of Health Research

Title: METS: Measurement of Exercise Tolerance for Surgery

Amount: \$980,000

Principal Investigators: D Wijeysundera, B Cuthbertson

Co-Investigator: CJ McCartney

McDonnell, C

2012-2014

Sickkids Paediatric International Patient Safety and Quality Funding Competition

Title: Postoperative nausea and vomiting in children undergoing radiofrequency catheter ablation under general anesthesia: the development and implementation of a bundled anti-emetic prevention strategy

Amount: \$3,865

Senior Responsible Investigator: C McDonnell

Meineri, M

2011-2013

Mount Sinai Hospital and the University Health Network Academic Medical Organization Innovation Fund

Title: Virtual TTE: An interactive online teaching aid for learning transthoracic echocardiography

Amount: \$200,000

Principal Investigator: M Meineri

Co-Investigators: A Vegas, C Silversides, G Tait

Niazi, A

2011-2012

Canadian Anesthesiologists' Society / Baxter Corporation Canadian Research Award in Anesthesia

Title: The use of an interactive 3D anatomic model to improve initial performance in ultrasound scanning of the spine

Amount: \$7,500

Principal Investigator: A Niazi

Co-Investigators: V Chan, J Carvalho, G Tait

Orser, B

2006–2011

CIHR

Title: The role of GABAA receptors in anesthetic-induced impairment of memory and consciousness

Amount: \$595,895; \$119,179 per annum for 5 years

Principal Investigator: B Orser

Co-Investigators: N/A

2008-2013

CIHR

Title: Tonic GABAergic regulation of memory and plasticity

Amount: \$826,305; \$165,261 per annum for 5 years

Principal Investigator: B Orser

Co-Investigators: N/A

2009-2014

Canada Research Chair in Anesthesia, Tier 2, Renewal

Title: Anesthetic drugs: From molecular mechanisms to patient safety

Amount: \$500,000; \$100,000 per annum for 5 years

Principal Investigator: B Orser

Co-Investigators: N/A

2010-2011

Canadian Anesthesiologists' Society Dr. Earl Wyands/Fresenius Kabi Research Award

Title: Seizures associated with antifibrinolytics: Mechanisms and

treatment strategies
Amount: \$30,000

Principal Investigator: B Orser

Co-Investigators: N/A

2011-2016

CIHR

Title: Trans-disciplinary team Research and Training Program in

Sleep and Biological Rhythms

Amount: \$2,000,000; \$400,000 per annum for 5 years

Principal Investigator: R Hoener **Co-Investigator:** B Orser

2011-2016

CIHR

Title: The role of GABA-A receptors in postoperative memory deficits

Amount: \$860,535; \$172,107 per annum for 5 years

Principal Investigator: B Orser

Co-Investigators: N/A

Riazi, S

2011

Physicians' Services Incorporated Foundation

Title: Can Ultrasound detect diabetic peripheral Neuropathy?

Amount: \$19,000

Principal Investigator: S Riazi

Co-Investigators: R Brull, V Chan, V Bril

2012-2016

Physician's Services Incorporated

Title: Calsequestrin-1, a candidate gene for the diagnosis of Malignant Hyperthermia. Study of molecular genetics of Malignant Hyperthermia

Amount: \$22,000

Principal investigator: S Riazi

Rigamonti A

2012-2016

Canadian Anesthesiologists' Society 2012 New Investigator Award Title: Effects of perioperative low-dose pregabalin on post- crani-

otomy pain: A two-centre randomized controlled trial

Amount: \$30,000

Principal Investigator: A Rigamonti

Co-Investigators: J Hanlon, M Cusimano, L Macdonald, P Peng,

L Venkatraghavan

Safa, B

2008 - 2011

Physician Services Incorporated

Title: A prospective, unicenter, randomized, placebo controlled, clinical interventional trial, comparing the postoperative functional recovery as well as analgesic efficacy of a single shot sciatic nerve block versus posterior capsule/fat pad infiltration of local anesthetic for total knee arthroplasty

Amount: \$ 50,000

Principal Investigator: B Safa

Co-Investigators: CJ McCartney, J Gollish

Szabo, E

2011-12

Department of Anesthesiology, University of Toronto- Merit Award Competition 2011-12

Title: Mechanism of Voltage-Gated Sodium Channel Related

Cardiomyopathy

Amount: \$40,000/yr for 2 years Principal Investigator: E Szabo

Co-Investigators: N/A

2012-14

SickKids Foundation and the Institute of Human Development, Child and Youth Health – CIHR

Title: Understanding Voltage-Gated Sodium Channel Related

Cardiomyopathy
Amount: \$299,981/3yr

Principal Investigator: E Szabo

Co-Investigators: N/A

Taylor, K

2010-2012

Heart and Stroke Foundation. Operating Grants

Title: Mechanical Assist for the Lungs as a Means of Achieving Primary in-series Palliation for Single Ventricle Neonates

Amount: \$38,055

Principal Investigator: G van Arsdell

Co-Investigator: K Taylor

2011-2012

Hospital for Sick Children Innovation Fund

Title: Hypertonic saline and pulmonary pressures in children

Amount: \$6,000

Principal Investigator: K Taylor **Collaborators:** JA Kolsen Petersen

2011-2013

University of Toronto. Merit Award

Title: Clarity in Critical Moments- Audio - Recorded Resuscitation

Amount: \$80,000

Principal Investigator: K Taylor **Collaborator:** C Parshuram

2012-2013

Canadian Anesthesiology Society

Title: Evaluating Precision of Therapy - Milrinone

Amount: \$20,000 [Grants].

Principal Investigator: K Taylor
Collaborator: C Parshuram

Venkatraghanvan, L

2012-2013

Canadian Anesthesiology Society Research Award

Title: Effects of perioperative low-dose pregabalin on post-craniotomy pain: A two-centre randomized controlled trial

Amount: \$30,000

Co-Applicants: A Rigamonti, P Peng, L Venkatraghavan, M Cusi-

mano, L Macdonald, J Hanlon

Wasowicz, M

2010-2012

Anesthesia Patient Safety Foundation (APSF/Eisai Research Award)

Title: The association between platelet inhibition (function) and perioperative major adverse cardiac events in post-percutaneous coronary intervention patients undergoing non-cardiac surgery

Amount: \$147,835

Principal Investigator: M Wasowicz

Co-Investigators: S Syed, R Lavi, K Karkouti, WS Beattie

2010-2012

Career Scientist Award in Anesthesia. Canadian Anesthesiologists' Society / Abbott

Laboratories Ltd.

Title: Expanding the role of the anesthesiologist beyond the operating room.

Amount: \$120,000

Principal Investigator: M Wasowicz

2011-2012

Anesthesia Patient Safety Foundation (APSF/Eisai Research Award)

Title: A prospective, observational study to determine the prognostic value of non invasive computed tomography coronary angiogram for risk startification in non-cardiac surgery-role of the

320 row multidetector computeg tomography
Amount: \$150.000

Principle Investigator: M Wasowicz

Co-Investigators: : N Paul, W.S Beattie, M Wasowicz, D Wijey-

sundera, R Iwanochko, S McCluskey

Wells, G

2008-2013

Canadian Institute for Health Research - Emerging Team Grant

Title: High Impact Strategies Towards Overweight Reduction in Youth (HISTORY)

Amount: \$2,500,000

Principal Investigator: J HamiltonJ

Co-Investigator: GD Wells

2010-2012

Canadian Chiropractic Protective Association

Title: Changes in vertebral artery and posterior cerebellar artery

blood flow with spinal manipulation; an MRI study

Amount: \$24,000

Co-Principal Investigators: GD Wells, J Trano

2010-2012

Labatt Family Heart Centre Innovation Fund

Title: Cardiac and skeletal muscle metabolism in Fontan children.

The effect of acute and chronic exercise

Amount: \$47,600

Co-Investigators: GD Wells, B McCrindle, L Banks

2010-2012

Ontario Neurotrauma Foundation

Title: Proof of Principle and Pilot Studies: Neuroimaging of Dual Task Performance in Youth After Mild Traumatic Brain Injury

Amount: \$98,052

Co-Investigators: GD Wells , K Sinopoli, M Keightly

2010-2013

Canadian Institutes of Health Research, Circulatory and Respiratory Health

Title: The biology of chronic preconditioning: genomic and physi-

ologic mechanisms of response

Amount: \$109,691

Co-Principal Investigators: GD Wells, A Reddington, EJ St. Mi-

chel

2011-2012

Faculty of Kinesiology & Physical Education Research Grants.

Title: Neural and metabolic changes in the young athlete's brain

following exercise Amount: \$5,000

Principal Investigator: GD Wells

Co-Investigators: N/A

2011-2013

Canadian Gene Cure Foundation

Title: Study to investigate the efficacy of L-arginine therapy on endothelium-dependent vasodilation and mitochondrial metabo-

lism in heteroplasmic patients with MELAS syndrome

Amount: \$75,000

Principal Investigator: I Tein **Co-Investigator:** GD Wells

2012

Research Program in Applied Sport Sciences

Title: An evaluation of the effectiveness of intermittent vs. continuous cold water immersion protocols for optimizing post exercise recovery

Amount: \$10,000

Principal Investigator: GD Wells

Co-Investigators: N/A

Wijeysundera, D

2009-2012

Canadian Institutes of Health Research, Clinician Scientist Training Award, Canadian Institutes of Health Research.

Title: Improving the risk-stratification and prevention of cardiac

complications after major non-cardiac surgery

Amount: \$172,500

Principal Investigator: D Wijeysundera

2011-2012

Anesthesia Patient Safety Foundation

Title: A prospective observational study to determine the prognostic value of noninvasive computertomography coronary angiogram for cardiac risk stratification in noncardiac surgery – role of 320 row multidetector computer tomography

Amount: \$150,000 USD

Principal Investigator: KE You-Ten

Co-Investigators: N Paul, WS Beattie, M Wasowicz,

R Iwaochko, S McCluskey, Wijeysundera DN

2012 -2016

Canadian Institutes of Health Research

Title: The METS (Measurement of Exercise Tolerance before Surgery) Study: An International Multicentre Prospective Cohort Study of Cardiopulmonary Exercise Testing For Improving Preoperative Risk Stratification for Major Non-Cardiac Surgery. Canadian Institutes of Health Research. Operating Grant.

Amount: \$987,066

Co-Principal Investigators: BH Cuthbertson, DN Wijeysundera **Co-Investigators:** WS Beattie, BL Croal, JT Granton, JS Hoch, M Mamdani, D Mazer, CJ McCartney, P Oh, R Pearse, AJ Smith,

KE Thorpe, HC Wijeysundera

You-Ten, E

2011-2012

Anesthesia Patient Safety Foundation

Title: A prospective observational study to determine the prognostic value of noninvasive computer tomography coronary angiogram for cardiac risk stratification in noncardiac surgery – role of 320 row multidetector computer tomography

Amount: \$150,000 USD

Principal Investigator: KE You-Ten

Co-Investigators: N Paul, WS Beattie, M Wasowicz, Iwanochko,

McCluskey, DN Wijeysundera

2011 - 2013

The Doctors Company Foundation Ann S. Lofsky MD Research Award

Title: A Prospective Observational Study to Determine the Prognostic Value of Noninvasive Computed Tomography Coronary Angiogram for Cardiac Risk Stratification in Noncardiac Surgery-Role of the 320-Row Multidetector Computer Tomography

Amount: \$5,000

Principal Investigator: KE You-Ten

Co-Investigators: N/A

NON-PEER REVIEWED GRANTS

Chung, F

2012-2012

Pfizer Pharma

Title: Smoking Cessation Program in the Preoperative Clinic The Combination of Counseling, Pharmacotherap and Quit line

Amount: \$141,780

Principal Investigator: F Chung

Co-Investigators: N/A

Davies, S

2012

Abbott Canada

Title: Continuing Education Website Support

Amount: \$2,000

Principal Investigator: S Davies

Co-Investigators: N/A

Djaiani, G

2010-2013

Hospira Incorporated

Title: Reducing delirium after cardiac surgery: a multifaceted ap-

proach to perioperative care

Amount: \$80,000

Principal Investigator: G Djaiani

Co-Investigators: R Katznelson, M Wasowicz, R Styra, V Rao

Hare, G

2011-2012

Forest Research

Title: Nebivolol maintains tissue oxygen delivery during acute

hemodilution
Amount: \$108,000

Principal Investigator: G Hare

Co-Investigators: N/A

Perlas, A

2011-2012

Pfizer Canada

Title: Department of Anesthesia, University of Toronto, Support for

Visiting Professors Annual City-Wide Pain Rounds

Amount: \$10,000

Principal Investigator: A Perlas

Co-Investigators: N/A

Mazer, D

2010-2011

Hospira

Title: Phase 4, Open-label study evaluating the hemodynamic effect of differing loading regimens of Precedex® in a post-surgical intensive care patient population (HELP).

Amount: \$47,434

Principal site Investigator: D Mazer

Co-Investigators: N/A

2011-2012

Roche Canada.

Title: Implementation of a Validated Diagnostic Prediction Model

for Acute Heart Failure.

Amount: \$10,000

Co Principal Investigator: D Mazer

2012-2013

Boehringer-Ingelheim Canada Ltd.

Title: A Randomized, phase II study to Evaluate the sAfety and pharmacokinetics of oraL dabIGatran etexilate in patients after

heart valve replacemeNt (RE-ALIGN study)

Amount: \$13,897 Co-Investigator: D Mazer

McCartney C:

2011-2013

Baxter Educational Grant

Title: Continuous peripheral nerve blocks for major orthopedic

surgery.

Amount: \$39,600

Applicants: CJL McCartney, M van der Vyver

Morgan P:

2011-2012

Continuing Education and Research Development Award, University of Toronto,

Title: Using Situational Awareness Global Assessment Technique (SAGAT) for Interdisciplinary Obstetrical Team Training using High-Fidelity Simulation

Amount: \$4,950

Co Investigators: PJ Morgan, D Tregunno, R Pittini, R Brydges, J

Tarshis, M Kurrek, K Milne

2012

Alternate Funding Plan Innovation Fund,

Title: Ambulatory breast cancer surgery: Does ultrasound guided paravertebral block as part of a multimodal regimen offer any advantages? A randomized controlled comparative study.

Amount: \$29,817.02

Co-Investigators: PJ Morgan, F Abdallah, T Cil, A McNaught, M

Srebrnjak, J Kronberg, J Semple

2012

Alternate Funding Plan Innovation Fund,

Title: Implementation of 23 hr length of stay for breast reconstruction surgery: Quality of Recovery evaluation following discharge.

Amount: \$29,720.82

Co-Investigators: J Semple, MH Brown, PJ Morgan, K Davidge

Seltzer, Z

2012-2014

Pfizer Neuropathic Pain Research Awards Program

Title: Phenomics and genomics of neuropathic pain

Amount: \$150,000

Principal Investigator: Z Seltzer

Co-Investigator: Katz J

Wasowicz, M

2010-2013

Hospira Inc.

Title: Reducing delirium after cardiac surgery: a multifaceted

approach of perioperative care

Amount: \$80,000

Principal Investigator: G Djaiani

Co-investigators: R Katznelson, M Wasowicz, R Styra, V Rao

2011

Helena Laboratories

Title: Functional analysis of platelets during cardiac surgery to guide transfusions requirements in the operating room (FAC-

TOR): a prospective, observational study

Amount: \$36,258

Principal Investigator: K Karkouti

Co- investigators: M Wasowicz, T Yau, C Cursio, P Yip, R Selby

2011

Hospira Inc.

Title: HELP Trial: Phase 4, open-label study evaluating the hemodynamic effect of differing loading regimens of Precedex in a post-surgical intensive care patient population

Amount: \$80,000

Principal Investigator: G Djaiani

Co-investigators: R Katznelson, M Wasowicz





