# TABLE OF CONTENTS

CHAIR’S INTRODUCTION .................................................................................. 3
VISION AND MISSION .................................................................................. 4
ANESTHESIA LEADERSHIP ........................................................................ 5
   Department Committees ........................................................................ 7
   Faculty and Affiliated Hospitals ............................................................ 7
RECOGNITION OF EXCELLENCE: HONOURS, AWARDS AND CHAIRS. ....... 8
ENHANCING CLINICAL PRACTICE: REPORT FROM THE VICE CHAIR, CLINICAL PRACTICE .......................................................... 11
   Clinical Statistics: Fully Affiliated Hospitals ........................................ 12
BUILDING UPON OUR EDUCATION MISSION: REPORT FROM THE VICE CHAIR, EDUCATION. ...................................................... 13
   Undergraduate Education Programs ...................................................... 15
   Postgraduate Education Programs ........................................................ 16
      Residents 2008-2009 ...................................................................... 17
   Fellowship Education Programs ............................................................ 19
      Anesthesia Fellows 2008-2009 ............................................................. 20
   Continuing Education and Professional Development Programs .......... 22
RESEARCH PROGRAMS: REPORT FROM THE VICE CHAIR, RESEARCH ......................................................................................... 24
PEER-REVIEWED PUBLICATIONS ................................................................. 28
CHAPTERS IN BOOKS ................................................................................ 36
INVITED LECTURES .................................................................................... 38
RESEARCH FUNDING .................................................................................. 53
   Peer-Reviewed Grants .......................................................................... 53
   Non Peer-Reviewed Grants .................................................................... 60
REDEFINING PROFESSIONAL PRACTICE
CHAIR’S INTRODUCTION

I would like to welcome you to read the Annual Report of the Department of Anesthesia, University of Toronto – a celebration of the accomplishments for the academic year 2008-2009.

In this document, you will find an excellent cross-sectional snapshot of a year’s productivity from our faculty, fellows and residents, and beyond this, you will readily appreciate from the report, the immense contributions we are making to inter-professional education and to redefining professional practice.

Our strategic plan – which has just been published - builds upon the strengths that are outlined in this report and focuses on accountability, excellence in research, recruiting the best and brightest individuals who will further our research and education, and developing outreach programs with which we can educate our colleagues in the developing world.

The achievements outlined in these pages owe much to the efforts and expertise of our educational directors, Drs. Isabel Devito (undergraduate education), Mark Levine (residency), Doreen Yee (fellowship) and Peter Slinger (Continuing Professional Development), Henderson Lee (GP Anesthesia Program), as well as our Director of Faculty Development, Dr. Martin van der Vyver, and all of the hospital education coordinators and research leaders who work with our three vice-chairs, Drs. Patricia Houston (education), Gerald O’Leary (clinical affairs) and David Mazer (Research).

Finally, our hospital and university administrative teams, under the leadership of Ms. Wendy Kubasik, deserve special mention for enabling the smooth evolution of the progressively seamless University-Hospital interface that characterizes our department.

We in the department are rightly proud of our accomplishments over the last year, and reflecting on such achievements, will identify our strengths and our weaknesses and using our strategic plan, work to make our contributions count most to help our patients.

Please enjoy this report and don’t hesitate to contact us if you need further information.

BRIAN KAVANAGH
Chair
OUR VISION

THE PROVISION OF SAFE AND INNOVATIVE ANESTHESIC, 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.
ANESTHESIA LEADERSHIP

OFFICE OF THE CHAIR AND ADMINISTRATION

Dr. Brian Kavanagh
Dr. Gerald O’Leary
Dr. Patricia Houston
Dr. David Mazer
Ms. Wendy Kubasik

Chair
Vice Chair, Clinical Practice
Vice Chair, Education
Vice Chair, Research
Business Manager

ANESTHESIOLOGISTS-IN-CHIEF (FULLY AFFILIATED HOSPITALS)

Dr. Mark Crawford
Dr. Gil Faclier
Dr. Patricia Houston
Dr. Jean Kronberg
Dr. Gerald O’Leary

The Hospital for Sick Children
Sunnybrook Health Sciences Centre
St. Michael’s Hospital
Women’s College Hospital
University Health Network (TGH, TWH and Mount Sinai Hospital)

UNDERGRADUATE EDUCATION PROGRAMS

Dr. Isabel Devito
Dr. Darryl Irwin
Dr. Anita Sarmah
Ms. Tina Nair

Director
Pre-Clerkship Coordinator
Simulation Coordinator
Program Assistant

SITE COORDINATORS

Dr. Lisa Bahrey
Dr. Dragan Djordevic
Dr. Darryl Irwin
Dr. Ryan Mai
Dr. Patrick Mark
Dr. Anahi Perlas
Dr. James Robertson
Dr. Anita Sarmah

UHN (Toronto General Hospital)
Women’s College Hospital
Mount Sinai Hospital
St. Michael’s Hospital
Toronto East General Hospital
UHN (Toronto Western Hospital)
The Hospital for Sick Children
Sunnybrook Health Sciences Centre
POSTGRADUATE EDUCATION PROGRAMS

Dr. Mark Levine  Director
Dr. Henderson Lee  Director, Family Practice Anesthesia
Dr. Viren Naik  Anesthesia Simulator
Dr. Beverley Morningstar  Resident Counselor
Dr. Daniel Riegert  Resident Counselor
Ms. Jennifer Morris  Program Assistant

SITE COORDINATORS

Dr. Deven Chandra  St. Michael's Hospital
Dr. Kathleen Dattilo  UHN (Toronto General Hospital)
Dr. Howard Fischer  Mount Sinai Hospital
Dr. Marianne Graham  Sunnybrook Health Sciences Centre
Dr. Stephen Halpern  Women's College Hospital
Dr. Vaibhav Kamble  Toronto East General Hospital
Dr. Henderson Lee  Family Practice Anesthesia Program
Dr. Bill Middleton/Sunita Sastry  UHN (Toronto Western Hospital)
Dr. Elaine Ng  The 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. Mary McLoone  St. Michael's Hospital
Dr. Atul Prabhulu  UHN (Toronto Western Hospital)
Dr. Gail Wong  The Hospital for Sick Children
Dr. Eric You-Ten  Mount Sinai Hospital

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT

Dr. Peter Slinger  Director
Dr. Guy Petroz  Chair, Annual Shields Research Day 2008
DEPARTMENT COMMITTEES

Executive Committee  B. Kavanagh (Chair), M. Crawford, G. Faclier, P. Houston, J. Kronberg, W. Kubasik (Secretary), D. Mazer, G. O’Leary

Education Council P. Houston (Chair), I. Devito, B. Kavanagh, H. Lee, M. Levine, P. Slinger, D. Yee

Department Appointments Committee D. McKnight (Chair), R. Crago, S. Halpern, W. Kubasik (Secretary), B. Macpherson, M. O’Driscoll, J. Wassermann

Promotions Committee G. Fox (Chair), V. Chan, F. Chung, P. Houston, C. Karsli, J. Katz, B. Kavanagh (ex-officio), W. Kubasik (Secretary), D. Mazer, C. McCartney, P. Morgan, B. Orser

Undergraduate Education I. Devito (Chair), L. Bahrey, R. Bechamp, D. Djordevic, P. Houston, D. Irwin, B. Kavanagh, J. Kim, W. Luksun, R. Mai, P. Mark, T. Nair (Secretary), A. Perlas, J. Robertson, A. Sarmah

Postgraduate Education M. Levine (Chair), A. Alam, D. Chandra, K. Dattilo, H. Fischer, M. Graham, S. Halpern, P. Houston, V. Kamble, B. Kavanagh, K. Kirkham, D. Mazer, B. Morningstar, J. Morris (Secretary), E. Ng, S. Sastry, N. Soneji, J. Tarshis

Fellowship Education D. Yee (Chair), J. Carvalho, S. Halpern, J. Heggie, P. McHardy, M. McLoone, A. Prabhu, 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, M. van der Vyver, L. Venkatraghavan

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

FACULTY MEMBERS AND AFFILIATED HOSPITALS

The University of Toronto and thus, the Department of Anesthesia, has full affiliation agreements with seven Toronto-area hospitals. We have over 270 full-time faculty members at the following hospitals (please see our website at www.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 note that we have built strong relationships with several partially affiliated or community-based hospitals. Our clerks and residents participate in teaching at these hospitals, and we have just under 60 part-time faculty members located in these hospitals:

- St. Joseph's Health Centre (Toronto)
- Humber River Regional Hospital
- North York General Hospital
- Royal Victoria Hospital (Barrie)
- Scarborough Grace Hospital
- Toronto East General Hospital
- Trillium Health Centre
RECOGNITION OF EXCELLENCE: HONOURS, AWARDS AND CHAIRS

The following University department awards were presented at the 30th Annual Shields Research Day, 2009:

- The Dr. R.J. Bryck Award recognizes the best fellow's research paper presented at the Annual Shields Research Day: Edwin Seet (Fellow, UHN-Toronto Western Hospital)
- 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: Robert Bonin (Graduate Student, Sunnybrook Health Sciences Centre)
- The Hynek Rothbart Award for the best paper presented by a Resident at the Annual Shields Research Day: Megan Hayter (Resident, PG-4, St. Michael's Hospital)
- The Thomas Donald Hammell Memorial Award in Anesthesia, is awarded in recognition of outstanding contributions to the Residency Program, as chosen by other residents: Greg Silverman (Resident, PG-5, Mount Sinai Hospital)
- The UT Anesthesia Best Shields Day Poster Award: John Hanlon (Resident, UHN-Toronto General Hospital)
- The Dr. Evelyn Bateman Award is awarded in recognition of excellence in anesthesia at the undergraduate level: John Kim (Undergraduate MD, Year 4, Fitzgerald Academy, University of Toronto)

The following University department teaching awards were also bestowed in 2008-2009:

- The Dr. John Desmond Award recognizes excellence in clinical teaching of undergraduate students: Isabella Devito (Assistant Professor, Mount Sinai Hospital)
- The Dr. Gerald Edelst Award is awarded to a faculty member in recognition of excellence as a clinical teacher of residents in anesthesia: Jeffrey Wasserman (Assistant Professor, St. Michael's Hospital)
- The Dr. David Fear Award is awarded for outstanding contributions to continuing medical education and continuing professional development in the Department of Anesthesia: Annette Vegas (Associate Professor, UHN-Toronto General Hospital)

The winners of the Laws Travel Fellowship 2009 were John Hanlon (PGY-4 Resident), Sylvain Boet (Fellow, St. Michael's Hospital) and Bruno Borges (Fellow, St. Michael's Hospital).

The following prestigious awards were presented at the Canadian Anesthesiologists' Society (CAS) meeting in Vancouver, British Columbia, June 2009:

- CAS Gold Medal: Vincent Chan (Professor, UHN-Toronto Western Hospital)
- CAS Research Award: David Mazer (Professor, St. Michael's Hospital)

Finally, we are pleased to note the following honors and awards, received by our faculty members in 2008-2009 (note that department Merit Awards are listed elsewhere in this report):

Lisa Bahrey (Assistant Professor, UHN-Toronto General Hospital)

- Undergraduate Teaching Award, Wightman-Barris Academy, University of Toronto, 2009

Mrinalini Balk (Assistant Professor, UHN-Mount Sinai Hospital)

- The Zuspan Award for the best multidisciplinary contribution to the 41st Annual Meeting of the Society for Obstetric Anesthesia and Perinatology, Washington, DC 2009
- Presented at the Best Paper Competition, 41st Annual Society for Obstetric Anesthesia and Perinatology Meeting, Washington, DC, 2009
- Best Paper Award Recipient, Obstetric Anesthesia, Canadian Anesthesiologists' Society 2009 Annual Meeting, Vancouver, British Columbia, 2009
- Ranked the best project from Anesthesia, and second best project of all the medical specialties; UHN-MSG AMO Phase III Innovation Funds (2009-2010)

Scott Beattie (Professor, UHN-Toronto General Hospital)

- R. Fraser Elliott Chair in Cardiac Anesthesia

Richard Brull (Associate Professor, UHN-Toronto Western Hospital)

- Fellowship Teaching Award, Department of Anesthesia, University Health Network and Mount Sinai Hospital, 2009

Vincent Chan (Professor, UHN-Toronto Western Hospital)

- President, American Society of Regional Anesthesia and Pain Medicine, 2009
Frances Chung (Professor, UHN-Toronto Western Hospital)
- Society for Ambulatory Anesthesia Distinguished Services Award, 2009
- Excellence and Innovation Research Award for obstructive sleep apnea research, Society for Ambulatory Anesthesia (SAMBA) annual meeting, 2009
- Best 6 abstracts, Richard Knill Competition, Canadian Anesthesiologists’ Meeting, 2009

Hance Clarke (Lecturer, UHN-Toronto General Hospital)
- Charles Fell Charitable Trust, University of Toronto Centre For The Study of Pain Clinician Scientist Award, Postgraduate Research Award
- William S. Fenwick Fellowship, University of Toronto Centre For The Study of Pain Clinician Scientist Award, Postgraduate Research Award

Mary Ellen Cooke (Assistant Professor, Mount Sinai Hospital)
- The Dr. John Bradley Award for excellence in teaching, Department of Anesthesia, University Health Network and Mount Sinai Hospital, 2009

Ronald Crago (Associate Professor, UHN-Toronto Western Hospital)
- Postgraduate Teaching Award, Wightman-Berris Academy, 2009
- Postgraduate Award for Excellence in Teaching, Department of Anesthesia, University Health Network and Mount Sinai Hospital, 2008-2009

Mark Crawford (Associate Professor, The Hospital for Sick Children)
- Appointed to Senior Editorial Board of Pediatric Anesthesia

Isabella Devito (Assistant Professor, Mount Sinai Hospital)
- Dr. John Desmond Award for Excellence in Undergraduate Teaching.
- Undergraduate Teaching Award, Department of Anesthesia, University Health Network and Mount Sinai Hospital, 2009

Ludwik Fedorko (Associate Professor, UHN-Toronto General Hospital)
- Health Profession Programs Award, Wightman-Berris Academy, 2009

J. A. Fisher (Professor, UHN-Toronto General Hospital)
- The Age Plus Prize: Canadian Institutes of Health Research Institute of Aging (CIHR IA) program; “Selective reduction of blood flow to white matter during hypercapnia corresponds with leukoaraiosis” Dr. Danny Mandel, graduate student, presenter.
- Second Prize: Best Poster Presentation, 11th International Congress of Cardiothoracic and Vascular Anesthesia, Berlin, Germany

Lucia Gagliese (Assistant Professor, UHN-Toronto General Hospital)
- York University Merit Award, 2008

Brian Kashin (Assistant Professor, North York General Hospital)
- The Barry Tobe Award at North York General Hospital
Joel Katz (Professor, UHN-Toronto General Hospital)

- CIHR Canada Research Chair in Health Psychology, Department of Psychology, York University, 2009

Rita Katznelson (Assistant Professor, UHN-Toronto General Hospital)

- Winner Second Prize - Research Abstract Competition, 11th International Congress of Cardiothoracic and Vascular Anesthesia, Berlin, Germany 2009

Brian Kavanagh (Professor, The Hospital for Sick Children)

- Dr. Geoffrey Barker Chair in Critical Care Medicine, The Hospital for Sick Children
- Senior Scientist, Program in Physiology and Experimental Medicine, The Hospital for Sick Children Research Institute, 2009

Igor Luginbuehl (Associate Professor, The Hospital for Sick Children)

- Excellence in Resident Teaching Award, The Hospital for Sick Children, 2009

Colin McCartney (Associate Professor, Sunnybrook Health Sciences Centre)

- Regional Anesthesia Teacher of the Year Award, Sunnybrook Health Sciences Centre, 2008

Claire Middleton (Assistant Professor, UHN-Toronto General Hospital)

- The Dr. David Bevan Award for Inter-Professional Education, Department of Anesthesia, University Health Network and Mount Sinai Hospital, 2009

Beverley Oser (Professor, Sunnybrook Health Sciences Centre)

- Canada Research Chair in Anesthesia, Tier 2: Anesthetic Drugs: From Molecular Mechanisms to Patient Safety
- Expert Panel, Ontario Ministry of Health and Long-term Care, Surgical Safety Checklist Implementation

Philip Peng (Associate Professor, UHN-Toronto Western Hospital)

- Continuous Professional Educational Development Award, Department of Anesthesia, University Health Network and Mount Sinai Hospital, 2009

Donna Stewart (Professor, UHN-Toronto General Hospital)

- President of International Association of Women’s Mental Health
- Distinguished Fellow of the American Psychiatric Association
- Chair of World Psychiatric Association Section on Women’s Mental Health
- Special Advisor to United Nations Economic and Social Council

Thomas Stewart (Professor, Mount Sinai Hospital)

- Sandra and Lionel Waldman Family Chair

Duminda Wijeysundera (Lecturer, UHN-Toronto General Hospital)

- Clinician Scientist Award - Phase 1, Canadian Institutes of Health Research (CIHR)

David Wong (Associate Professor, UHN-Toronto Western Hospital)

- First Prize, Scientific Exhibits, American Society of Anesthesiologists Annual Meeting, Orlando 2008

Jean Wong (Assistant Professor, UHN-Toronto Western Hospital)

- Best 6 abstracts, Richard Knill Competition, Canadian Anesthesiologists’ Meeting, 2009
ENHANCING CLINICAL PRACTICE

Report from the Vice-Chair, Clinical Practice

DR. GERALD O’LEARY

Anesthesia is perceived by the general public as safe and almost routine. Indeed, the advances in anesthesia that allowed this to happen oftentimes remain unheralded perhaps because Anesthesiologists make great efforts to make it appear both easy and safe. With over 70,000 general anesthetics per annum in the downtown core alone, and very few adverse events, such assumptions are understandable. In this report, there are two areas of potential change in clinical practice that I would like to briefly mention.

First is the development of Anesthesia Care Teams (ACTs). This clinical care model allows our Anesthesiologists to provide leadership and oversight to non-physician care teams, who assist in the provision of care from the pre- to post-operative phases. In some hospital sites, this model has been developed to include intraoperative care. In some senses, ACTs represent a radical shift from a single Anesthesiologist (physician) care provider; in another sense, it is nothing more than a natural extension of the teaching model of care. Within both approaches, the focus remains on the best and safest delivery of anesthesia care.

The ACT model has now been implemented in 22 hospitals across Ontario through funding provided by the provincial Wait Time strategy. Phase 1, now in the third year of funding, included fourteen hospitals and Phase 2 added eight additional hospital sites. As well, the ACT model was implemented in six high-volume cataract sites. Detailed review has found this to be a safe and efficient model of care that has complimented the classical single provider care model while improving access to care and reducing wait times. The focus has now shifted to the future direction for the ACT model. To address this issue, an ACT sustainability document – "A Plan to Evolve the Anesthesia Care Team Model in Ontario" was submitted to MOHLTC at the end of 2009. It is important to note that Toronto has led this development, and the UT-associated hospital departments of anesthesia have contributed generously, in terms of resources and knowledge, to the teaching and maintenance of this model.

The second area of potential practice change involves the implementation of new systems and methodologies designed to enhance and simplify the administration of medication by anesthesia providers. Historically, Anesthesiologists were single-care providers who dispense, administer and record medications without a second, independent verification of the medications administered. This “second check” is however a standard practice within other medical fields. Most experts suggest an error rate of 1:1,000 per medication handling, with multiple levels whereby errors could occur (e.g., syringe mislabeling, incorrect administration, failure to administer, and charting issues such as omissions, inaccuracies or concerns with legibility.). One of our hospitals, Toronto General Hospital (TGH) is currently evaluating a bar scanner-based technology which reads the bar code on the medication vials and prints a label which is then placed on the syringe. This system may remedy the mostly indiscernible error of mislabeled syringes. These (correctly) labeled syringes are then scanned by a second bar code scanner, just prior to medication administration, to produce a voice confirmation of the medication and a visual display on the anesthesia screen. Both of these steps may alert the user to a potential drug error. The advantage of this change in practice to the caregiver is that the medication is automatically entered into an electronic anesthesia record which also automatically records other physiological data. Although the product evaluation is still in its infancy at the TGH, I remain
impressed with the almost uniform positive response from staff. This may prove to provide an even safer and better work environment for the patient.

Why the repetitive reference to safety? As a medical specialty, Anesthesiologists have through innovation continuously advanced the safety of our anesthesia practice (e.g., pulse oximetry, end-tidal carbon dioxide detection, etc.). The Canadian Anesthesiologists' Society (CAS) changed its motto several years ago from “watching closely those who sleep” to “Science, Vigilance, and Compassion”. Indeed, this new maxim better encapsulates our own understandings of our role roles: i.e., the application of academic knowledge and science as the mainstay of modern anesthesia, vigilance as a compliment to monitoring during anesthesia, and compassion as the foundation for the care we provide. We must ensure that these themes remain core values to our practice whether solo or team based.

Clinical Statistics: Fully Affiliated Hospitals

The following table records anesthesia-related clinical data obtained from the UT affiliated local teaching hospitals for the period July 1, 2008 to June 30, 2009:

<table>
<thead>
<tr>
<th></th>
<th>TGH</th>
<th>TWH</th>
<th>MOUNT SINAI</th>
<th>WOMEN'S</th>
<th>SUNNYBROOK</th>
<th>ST. MIKE'S</th>
<th>HOSPITAL FOR SICK CHILDREN</th>
<th>TOTAL - ALL SITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Anesthetics:</td>
<td>7,830</td>
<td>8,514</td>
<td>9,469</td>
<td>3,648</td>
<td>11,413</td>
<td>15,474</td>
<td>18,089</td>
<td>74,437</td>
</tr>
<tr>
<td>Regional Anesthetics:</td>
<td>783</td>
<td>3,500</td>
<td>6,185</td>
<td>117</td>
<td>1,976</td>
<td>2,227</td>
<td>57</td>
<td>14,845</td>
</tr>
<tr>
<td>Deliveries:</td>
<td>0</td>
<td>0</td>
<td>6,534</td>
<td>3,493</td>
<td>n/a</td>
<td>2,989</td>
<td>n/a</td>
<td>13,018</td>
</tr>
<tr>
<td>Epidurals/spinals:</td>
<td>86</td>
<td>1,180</td>
<td>6,128</td>
<td>2,229</td>
<td>2,333</td>
<td>2,092</td>
<td>225</td>
<td>14,273</td>
</tr>
<tr>
<td>Caesarian sections:</td>
<td>0</td>
<td>0</td>
<td>2,263</td>
<td>1,334</td>
<td>n/a</td>
<td>817</td>
<td>n/a</td>
<td>4,414</td>
</tr>
<tr>
<td>Caesarian section rate:</td>
<td>0</td>
<td>0</td>
<td>34.6%</td>
<td>37%</td>
<td>n/a</td>
<td>27.3%</td>
<td>n/a</td>
<td>32.9%</td>
</tr>
<tr>
<td>Pain clinic cases:</td>
<td>0</td>
<td>266</td>
<td>1,764</td>
<td>378</td>
<td>3,858</td>
<td>2,082</td>
<td>269</td>
<td>8,617</td>
</tr>
<tr>
<td>Acute pain service:</td>
<td>3,093</td>
<td>2,463</td>
<td>2,611</td>
<td>143</td>
<td>5,500</td>
<td>4,506</td>
<td>1,001</td>
<td>19,317</td>
</tr>
<tr>
<td>ICU beds:</td>
<td>53</td>
<td>20</td>
<td>16</td>
<td>2</td>
<td>70</td>
<td>56</td>
<td>36</td>
<td>253</td>
</tr>
</tbody>
</table>
BUILDING UPON OUR EDUCATION MISSION
Report from the Vice-Chair, Education

DR. PATRICIA HOUSTON

The Education Portfolio in the Department of Anesthesia continues to grow and at the same time, enhance both its excellence in, and commitment to, teaching and learning. A focus on both the student and faculty experience has laid the foundation for sustained achievement.

The Undergraduate Program is preparing for the increase in undergraduate student numbers with the expansion of the medical school to a Mississauga campus. Appointment of three new coordinators for the Pre-clerkship, Simulation Based Education and E-learning will help to ensure that our curriculum develops to meet the needs of our changing student population.

Growth in the Postgraduate Residency Program is also evident in the increasing numbers of residents and scope of the program. Introduction of both the regional anesthesia and thoracic anesthesia rotations ensure that our residents are well trained and competent across the subspecialty areas of anesthesia. The breadth and depth of practice to which the residents are exposed is unmatched in any Canadian anesthesia program. Candidates continue to choose Toronto for their training due to its recognized excellence in teaching, research and clinical competencies.

Under the leadership of Dr. Doreen Yee and with the direction provided by the University Fellowship Education Working Group, improved educational supports and processes are being implemented into our Fellowship Training Programs to ensure all of our fellows experience a well-structured educational program and are provided with the resources and structures necessary to ensure their success in their chosen area of sub-specialty anesthesia.

As we look to the future it is clear that with growth we must also review and revitalize our educational processes and develop our teachers. To this end, the department has awarded resources on a biennial basis through a competitive, externally peer-reviewed, merit awards system to promote curriculum review and renewal and to improve our faculty development opportunities. I look forward to the next years as an exciting journey in a changing landscape of technology supported learning and distributed education.

Please join us in congratulating the following recipients of the merit awards in the education and creative professional activity stream:

<table>
<thead>
<tr>
<th>RECIPIENT</th>
<th>HOSPITAL</th>
<th>PROJECT TITLE</th>
<th>VALUE OF AWARD/ANNUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eric You-Ten</td>
<td>UHN-Mount Sinai</td>
<td>Development and Integration of A Comprehensive Airway Course in the Anesthesia Residency Curriculum</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>Ludwik Fedorko</td>
<td>UHN-Toronto General Hospital</td>
<td>Bar code aided drug verification process during medicating patients in the operating room</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>Marianne Graham</td>
<td>Sunnybrook Health Sciences Centre</td>
<td>University of Toronto Anesthesia Curriculum Review</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>Sharon Davies</td>
<td>UHN-Mount Sinai Hospital</td>
<td>Accredited Continuing Education Web Site</td>
<td>$ 20,000</td>
</tr>
<tr>
<td>Jordan Tarshis</td>
<td>Sunnybrook Health Sciences Centre</td>
<td>The Development of a National Simulation Curriculum for Postgraduate Training in Canada</td>
<td>$ 20,000</td>
</tr>
<tr>
<td>Philip Peng</td>
<td>UHN-Toronto Western Hospital</td>
<td>Education in Chronic Pain</td>
<td>$ 20,000</td>
</tr>
<tr>
<td>Richard Cooper</td>
<td>UHN-Toronto General Hospital</td>
<td>A Structured Approach to Training in Flexible Bronchoscopic Intubation</td>
<td>$ 20,000</td>
</tr>
<tr>
<td>Fiona Campbell</td>
<td>The Hospital for Sick Children</td>
<td>The SickKids Pain Centre - First Steps</td>
<td>$ 20,000</td>
</tr>
<tr>
<td>Simon Abrahamson</td>
<td>St. Michael’s Hospital</td>
<td>Evaluation of a New Media-Rich Simulation Based Virtual Technology for Learning in Critical Care</td>
<td>$ 20,000</td>
</tr>
<tr>
<td>Scott Beattle</td>
<td>UHN-Toronto General Hospital</td>
<td>Perioperative Clinical Anesthesia Information System (CAIS)</td>
<td>$ 20,000</td>
</tr>
<tr>
<td>Massimiliano Meineri</td>
<td>UHN-Toronto General Hospital</td>
<td>Virtual Cardiac Imaging</td>
<td>$ 20,000</td>
</tr>
<tr>
<td>Annette Vegas</td>
<td>UHN-Toronto General Hospital</td>
<td>Cardiac Anesthesia Fellows’ Manual</td>
<td>$ 20,000</td>
</tr>
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Our faculty’s expertise and commitment to our education programs is unparalleled. Anesthesiologists are renowned for developing innovative teaching methods such as simulation in education to the fore.
OUR UNDERGRADUATE EDUCATION PROGRAM

Report from Dr. Isabella Devito

DIRECTOR
UNDERGRADUATE EDUCATION PROGRAM

The 2008-2009 academic year was an exciting year for the Undergraduate Program in the Faculty of Medicine and the UT Department of Anesthesia.

Curriculum renewal, increased enrollments and the opening of the Mississauga campus were key priorities this year. The Curriculum Committee was established to oversee the development and implementation of the new curriculum. Draft proposals were developed that positioned the Anesthesia Clerkship within the third year of the undergraduate medical education program. With the potential of a double cohort and increased enrollment in 2010-2011, our group began to develop strategies to provide the best possible learning experiences for our medical students. Data was collected to examine resources available in each academic center to allow our objectives to be met. As well, we initiated discussions regarding the incorporation of community hospitals with a known interest in teaching into the undergraduate program.

The 2010 medical school class will increase to 250 students and in 2011 to 259 with 54 students assigned to the Mississauga campus. As a result, the number of students in our clerkship program will increase in 2012, with 250 students remaining on the downtown St. George campus. Following 2013, our numbers will remain stable, with 205 students at the St. George campus and 54 at the Mississauga campus. The challenges of increased enrollments, a double cohort, and the effective integration of the Mississauga Academy into our program will be major challenges in the near future.

Three new positions were created to help promote the Undergraduate program: Pre-clerkship Coordinator; Simulation Coordinator, and E-Learning Coordinator. Dr. Darryl Irwin (UHN-Mount Sinai Hospital) has undertaken the role of Pre-clerkship Coordinator, and Dr. Anita Sarmah (Sunnybrook Health Sciences Centre) has accepted the role of Simulation Coordinator. The role of E-Learning Coordinator remains open. Initiatives that were developed by Dr. Irwin include an Airway Workshop for the Anesthesia Interest Group (AIG). This workshop was so popular that we were not able to accommodate all students with the initial workshop. Attendance at our annual Student Information Night was the highest to date. Dr. Sarmah has been very active in developing new modules for Simulation Day. Her new EKG module will be implemented this coming academic year. Additionally, we introduced a resident representative to our committee this year; Dr. Warren Lukusn was our inaugural resident representative.

New initiatives for our clerkship program during this academic year include the development and implementation of MPP (My Practice Portfolio), development of a "Topics for Discussion" list for Operating Room teaching, intravenous insertion policy for medical students and the incorporation of the Hospital for Sick Children into our seminar teaching.

Our faculty continue to perform highly in the student evaluations of their teaching during clerkship. The hospital faculty TES scores range from 4.29-4.59 with a department mean of 4.47 (out of 5.00). We are fortunate to have faculty who are committed to excellence in teaching.

The UT Department of Anesthesia continues to have a strong presence in the Pre-Clerkship years. We continue to be involved in file reviews and the interview process for selection of the medical school class. As well, we continue our involvement in ASCM (Art and Science of Clinical Medicine) I and II, DOCH (Determinants of Community Health) II, Metabolism and Nutrition, Foundations of Medical Practice and Brian and Behaviour. Our faculty involvement is exceptional in the Pre-Clerkship years.

Our elective program continues to be extremely popular where demand exceeds available space. This will continue to be a challenge during our double cohort year. Our students will of course be our continued priority, as well as those studying elsewhere in Canada.

Naturally, there will be many challenges in the near future; however the most pressing will be the integration of the double cohort. With forward planning, we are hoping to make this transition seamless.
OUR POSTGRADUATE EDUCATION PROGRAMS

Report by Dr. Mark Levine

DIRECTOR
POSTGRADUATE EDUCATION PROGRAM

In the 2008-2009 academic year we had 94 residents in our postgraduate education program, almost evenly distributed amongst the five years of the training program. This represents a steady annual increase from the 80 residents in the program in the 2004-2005 academic year and is a result of additional funded positions for both Canadian and International Medical Graduates. We are the largest training program in Canada in terms of the number of trainees, teaching faculty, teaching sites and research productivity. Over the course of the five year program, residents acquire experience in every subspecialty area of anesthesia.

The Department is home to many international leaders in the area of regional anesthesia. As a result, we are able to offer one month regional anesthesia rotations to all our trainees. Something no other site is able to do! An offshoot of this program has been the development of a focused introduction to Obstetrical Neuraxial Anesthesia for all our PG1 residents. This has been crucial in preparing them for more independent work in caring for obstetrical patients in subsequent years.

Another new initiative has been the introduction of a rotation designed to consolidate thoracic anesthesia experience for all senior residents, with a one-month rotation in Thoracic and Community anesthesia at either Toronto East General Hospital or St. Joseph’s Hospital. This is an example of our ability to enhance the extensive training our residents receive at the 7 major teaching hospitals by closely collaborating with our community partners.

In July 2008, 18 new PGY1 residents joined us: 15 Canadian Medical Graduates, 2 International Medical Graduates (IMG), and one internationally sponsored resident. We also accepted one IMG into a PGY2 position and evaluated 2 fully trained IMG’s who successfully completed 6 month assessment periods and were able to enter independent community practice.

We are proud to note that 100% of our locally trained senior residents passed their Royal College Examinations in the spring of 2009. One of our PG5 residents successfully overlapped his final year of residency with the first of a 2 year program in Critical Care. This is of significance because, for a number of years, there has been a relative lack of interest in this course of training amongst anesthesia trainees. There has been a resurgence in interest lately, and we hope this trend will continue.

In July 2008, we welcomed two new site coordinators: Dr. Deven Chandra at St. Michael’s Hospital and Dr. Vaibhav Kamble at Toronto East General Hospital (TEGH). In addition, Dr. Sunita Sastry from Toronto Western Hospital, joined our committee later in the academic year. Dr. Chandra has replaced Dr. Jeff Wasserman who held this position for many years and is now responsible for one of our senior revision groups. Dr. Henderson Lee, the former site coordinator at TEGH in now the program director for the Family Practice Anesthesia Program and Dr. Middleton is now able to focus his attention on his role as site chief at Toronto Western Hospital.

Dr. Lee was appointed Program Director for the Family Practice Anesthesia (FPA) program in July 2008. The FPA program is a one year training scheme designed to prepare Family Physicians to provide anesthetic care for relatively low risk patients undergoing straightforward surgical procedures in rural communities. This is considered to be one of the “Enhanced Skills Programs” within the department of Family and Community Medicine. Dr. Lee, therefore, reports jointly to both the Anesthesia and Family Medicine program directors. Dr. Lee completed a review of the FPA curriculum to ensure that the program adheres to the guidelines developed by the College of Family Physicians of Canada (CFPC).
THE CLINICIAN INVESTIGATOR PROGRAM (CIP) IS AN INNOVATIVE COMPONENT OF OUR POSTGRADUATE TRAINING PROGRAM. POTENTIAL PARTICIPANTS ARE IDENTIFIED DURING THEIR PGY1 OR PGY2 YEARS OF TRAINING, AND COMMIT AT THE OUTSET TO DEDICATED TIME TO DO RESEARCH DURING THEIR RESIDENCY. THE TRAINEE IS REGISTERED IN THE UNIVERSITY OF TORONTO INSTITUTE OF MEDICAL SCIENCES (OR EQUIVALENT) IN AN MSC OR PHD PROGRAM. ONE YEAR MAY COUNT TOWARDS THE ROYAL COLLEGE REQUIREMENTS IN ANESTHESIA.

the body responsible for accreditation of the FPA program. Though this program is accredited by the CFPC, almost all clinical anesthesia training is carried out by fellowship-trained anesthesiologist within our department. Residents in this program receive funding from a number of sources including Ontario Ministry of Health funding for enhanced skills training in Family Medicine for current Family Medicine Residents and re-entry funding for physicians already in practice who wish to expand their skill sets.

During the 2008-2009 academic year, two of our residents successfully completed graduate degrees, one Masters in Education and one Master of Business Administration. In addition, our residents presented research papers at local, national and international meetings. One of the highlights of the academic year is Shields Day, an annual event at which residents and fellows present research carried out within the department in the preceding year. The following residents received awards at the 2008 Shields Day: Dr. Megan Hayter – Hynek Rothbart award for best resident presentation, Dr. John Hanlon – Best Poster Award and Dr. Greg Silverman – Thomas Donald Hammell Memorial Award selected by other residents as the senior resident who had made the greatest contribution to the program.

We pride ourselves in collaborating closely with other departments. In the 2008-09 academic year we were able to provide elective rotations for all junior general surgery, otolaryngology and plastic surgery residents with an aim of fostering relationships between specialties and educating our surgical colleagues with respect to anesthetic skills, issues and concerns. This was the first time this was offered to all such a large number of surgery residents and the experience was very well received by our surgical colleagues.

In anticipation of the expansion of the University of Toronto Medical School in 2011 – and potential further expansion of our postgraduate training program, we have entered into discussions with our community hospital partners to determine the feasibility of increased cooperation with those institutions as potential residency training sites. I am pleased to report that all have expressed interest in training anesthesia residents in future.

RESIDENTS 2008-2009

PGY5

Ahn, Richard
Coutinho, Chris
Joshi, Mital
Louis, Ihab
Samuel, Daniella
Au-Yeung, Elizabeth
Donnelly, Thomas
Kanani, Nisha
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Silverman, Greg
Chang, Alvin
Fourie, Ockert
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OUR FELLOWSHIP EDUCATION PROGRAM

Report from Dr. Doreen Yee

DIRECTOR
FELLOWSHIP PROGRAM

Our university department has over 95 fellows from over 25 different countries distributed among the seven fully-affiliated teaching hospitals, undoubtedly the largest program in Canada. Each of the hospitals offer excellent clinical programs both in general and subspecialty areas, as well as an abundance of research opportunities. Over the last year-and-a-half, we have worked hard to build infrastructure around a university-based teaching program for all of our fellows. One goal is to expose fellows to the numerous areas of expertise found across the faculty; a secondary goal is to facilitate networking and educational opportunities for fellows from different hospitals training in the same clinical area. Subspecialty training such as regional, cardiac, obstetrical and pediatric anesthesia, continue to be extremely popular, with some positions filling up two years in advance.

There are over 1,000 fellows in the entire Faculty of Medicine - 68% of them are found in the Departments of Medicine, Surgery and Anesthesia. Under the direction of the Dean's Office, a Fellowship Working Group lead by the Vice Dean of Postgraduate Education was formed with representation from 10 medical departments (including Anesthesia) in January 2008 to advise and set minimum standards across departments for clinical fellowships and recommend best practices for application, selection and evaluation policies. After meeting for a year, an approved final report “Raising the Bar: Recommended Standards for the Management of Clinical Fellowships” was produced and is available online. Plans are being made to gradually implement these recommendations into our own processes. The Working Group has now been dissolved, and a new Fellowship Education Advisory Committee was started to advise the Postgraduate Vice Dean on such matters. Our department also has representation at this important forum.

This year, an online system for fellow evaluation was developed, based on CanMEDS competencies. This should lead to a standardized evaluation system across all hospital sites, similar to what we have for our residents. We plan to implement this program in the next academic year. This will be important for both our residents, and our faculty members; the latter do not currently receive evaluations on a consistent basis which could be used to improve teaching effectiveness, or strengthen promotions applications.

A successful “Regional Anesthesia Research-in-Progress” seminar event was held for all fellows where regional fellows from three sites presented their work. This was followed by a social evening. There were two sets of research seminars given specifically for fellows: one based out of The Hospital for Sick Children coordinated by Dr. Mark Crawford, and the second from Women’s College Hospital organized by Drs. Pam Angle and Steve Halpem. These series will be amalgamated into a unified series next year.

The fellows continue to be productive in their research activity as evidenced by the work seen at the Annual Shields’ Research Day. Over 60% of the presentations had fellow involvement, most as first author. In addition, our fellows successfully competed in our departmental tuition awards program as well as our competition in support of travel to meetings and conferences (the Laws Travel Fellowship).
# Anesthesia Fellows 2008-2009

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<td>Banerjee, Arnab</td>
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<td>Stocche, Renato</td>
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</table>
OUR CONTINUING EDUCATION PROGRAMS

Report from Dr. Peter Slinger

DIRECTOR
CME/CPD PROGRAMS

The continuing Medical Education Committee of the Department of Anesthesia represents each of the teaching hospitals, the directors of the CME courses and community hospital representatives. It meets every two to three months, and last year its members organized the following courses which the CME Committee sponsored:

<table>
<thead>
<tr>
<th>DATE</th>
<th>EVENT(S)</th>
<th>COURSE DIRECTOR(S)</th>
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<tbody>
<tr>
<td>September 2008</td>
<td>• Regional Anesthesia and Pain Medicine</td>
<td>Dr. Vincent Chan</td>
</tr>
<tr>
<td></td>
<td>• Obstetric Anesthesia</td>
<td>Dr. Jose Carvalho</td>
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<tr>
<td>October 2008</td>
<td>• Hyperbaric Medicine</td>
<td>Dr. Wayne Evans</td>
</tr>
<tr>
<td>November 2008</td>
<td>• Perioperative Transesophageal Echocardiography Symposium</td>
<td>Dr. Annette Vegas</td>
</tr>
<tr>
<td>December 2008</td>
<td>• Critical Care Canada Forum</td>
<td>Dr. Brian Kavanagh</td>
</tr>
<tr>
<td>March 2009</td>
<td>• Anesthesia Faculty Development Day</td>
<td>Dr. Patricia Houston</td>
</tr>
<tr>
<td>February 2009</td>
<td>• Ultrasound in Pain Medicine Masterclass</td>
<td>Dr. Michael Gofeld</td>
</tr>
<tr>
<td>March 2009</td>
<td>• Tremulant Anesthesia Meeting</td>
<td>Dr. Jordan Tarshis</td>
</tr>
<tr>
<td>April 2009</td>
<td>• Introductory Workshops for Ultrasound Guided Nerve Blocks</td>
<td>Dr. Vincent Chan</td>
</tr>
<tr>
<td>May 2009</td>
<td>• Toronto Anesthesia Symposium</td>
<td>Dr. Peter Slinger</td>
</tr>
<tr>
<td>May 2009</td>
<td>• Annual Shields Research Day</td>
<td>Dr. Guy Petroz</td>
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<tr>
<td>May 2009</td>
<td>• Controversies in Pain Medicine</td>
<td>Dr. Mark Frieleander</td>
</tr>
<tr>
<td>June 2009</td>
<td>• Ultrasound in Pain Medicine Masterclass</td>
<td>Dr. Michael Gofeld</td>
</tr>
<tr>
<td>June 2009</td>
<td>• Introductory Workshops for Ultrasound Guided Nerve Blocks</td>
<td>Dr. Vincent Chan</td>
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</table>

The courses covered several important areas in the practice of anesthesia under the following headings:

REGIONAL ANESTHESIA AND PAIN MEDICINE:

There were three symposia held (Regional Anesthesia and Pain Medicine, September 2008; Ultrasound and Pain Medicine Masterclass December 2008 and May 2009; and, Introductory Workshops for Ultrasound Guided Nerve Blocks, March and June 2009). These courses were organized by Drs. Vincent Chan and Michael Gofeld and were well-attended and highly ranked. The courses focused on the new use of ultrasound in anesthesia and pain medicine using novel teaching techniques and small group seminars to maximize educational value.

OBSTETRIC ANESTHESIA:

The major meeting of the year was the Obstetric Anesthesia Update in September 2008 coordinated by Dr. Jose Carvalho. This highly successful conference attracted international attendance focusing on current controversies and approaches to analgesia anesthesia of the obstetric patient.
PERIOPERATIVE ECHOCARDIOGRAPHY:

Coordinated by Dr. Annette Vegas, this course focused on advanced perioperative and critical care echocardiography, and used multimodal teaching approaches to introduce and refine echocardiographic skills.

GENERAL ANESTHESIA, CRITICAL CARE:

There were four general anesthesia CME meetings including Toronto Anesthesia Practice coordinated by Dr. Pamela Angle (November 2008); the Tremblant Anesthesia Meeting coordinated by Dr. Jordan Tarshi (February 2009); Toronto Anesthesia Symposium (April 2009) coordinated by Dr. Peter Slinger; and the Controversies in Perioperative Medicine coordinated by Dr. Mark Friedlander (May 2009). These form the cornerstone of the department’s CME efforts in general anesthesia and have remained phenomenally popular, attracting outstanding evaluations on an annual basis. In addition, members of the department were involved in the coordination of the Hyperbaric Medicine Meeting (October 2008, Dr. Wayne Evans) and Critical Care Canada Forum (November 2008, Dr. Brian Kavanagh) and these conferences have achieved significant international and national attention. Finally, two important contributions include the Annual Shields Research Day which attracts well in excess of 300 participants, and was located in the Bahen Centre, University of Toronto. The guest speaker in May 2009 was Dr. Mark Warner, Vice-Chair of the Mayo Clinic. Shields Day was coordinated by Dr. Guy Petroz. The Successes of the Faculty Development Day – coordinated by Dr. Patricia Houston – will also be built upon in November 2009. The department’s CME contributions have been nothing short of phenomenal and the future CME courses are listed on the department’s website (www.anesthesia.utoronto.ca).

The department also organizes a city-wide webcast (and telecast) in Regional Anesthesia Rounds organized by Dr. Joseph Kay, Sunnybrook Health Sciences Centre, every three months. Comprehensive web-based CME online anesthesia rounds have also been coordinated into eight educational modules developed by Dr. Sharon Davies, Mount Sinai Hospital. These modules have been accredited by the University of Toronto for Main Cert category-owned credits and can also be accessed through the university department website.

The remaining web-based resources include the bronchoscopy simulator which was developed by the thoracic anesthesia group at UHN-Toronto General Hospital. This is a highly realistic online bronchoscopy simulator which will improve the anesthesiology skills in providing knowledge of the bronchial anatomy and enabling more rapid and accurate placement of endobronchial tubes for lung isolation. This can be accessed in addition to a simulator quiz on the web at www.thoracicanaesthesia.com.
RESEARCH PROGRAMS
Report from the Vice-Chair, Research

DR. DAVID MAZER

The Department of Anesthesia at the University of Toronto continues to be one of the top Anesthesia research departments in the world, and in 2008-2009, several new initiatives were undertaken to solidify and increase our broad-based and global impact.

NEW RESEARCH-RELATED INITIATIVES IN 2008-2009:

In the past year, we have undertaken a strategic planning process to build upon the excellence and innovation for which our department is known. Our goal is world-class research with translational potential and global impact. Several key opportunities were identified such as fostering inter-hospital research including multicenter University of Toronto-based clinical trials. In future, we will continue to provide services to our faculty members to advance the quality of our overall research. Indeed, we will work to provide enhanced mentorship programs for trainees and new investigators, and our internal UT departmental peer-review system will be strengthened and emphasized. The goal here is to increase our success rates for external grant applications.

The most innovative - and perhaps controversial - of these new measures included the implementation of a competitive, Merit Awards Program for our faculty members. The overall aim of the program is to allocate funding to anesthesia faculty to support academic time, according to merit. The two broad categories of Merit Awards are Research and Education/Creative Professional Activity (CPA). All applications for this inaugural competition underwent both external and internal peer-review according to the following criteria: scientific rigor; potential impact; originality; applicant's productivity; peer-reviewed funding; feasibility; experience/training; recognized expertise; collaboration within and outside the department; and, leadership/mentorship. The Merit Awards program has been endorsed by the Faculty of Medicine and is increasingly seen as a model for allocating university funds. While the department received a large number of applications, funding limitations resulted in 12 (in the research category) being funded. We extend our congratulations to the following recipients of the research awards:

<table>
<thead>
<tr>
<th>RECIPIENT</th>
<th>HOSPITAL</th>
<th>PROJECT TITLE</th>
<th>VALUE OF AWARD/ANNUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duminda Wijeyasurya</td>
<td>UHN-Toronto General Hospital</td>
<td>Evaluating Preoperative Anesthesia Care in Ontario at a Population-Based Level</td>
<td>$ 80,000</td>
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<tr>
<td>Scott Beattie</td>
<td>UHN-Toronto General Hospital</td>
<td>Perioperative Outcomes Research Program</td>
<td>$ 60,000</td>
</tr>
<tr>
<td>David Mazer</td>
<td>St. Michael's Hospital</td>
<td>Translational Studies of Mechanisms of Renal Dysfunction Following Cardiopulmonary Bypass</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>Andrew Baker</td>
<td>St. Michael's Hospital</td>
<td>Analysis of Shockwave Blast Parameters on Cytoskeletal Alterations and Neuronal Function</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>Keyvan Karkouti</td>
<td>UHN-Toronto General Hospital</td>
<td>Advance Targeted Transfusion in Anemic Cardiac Surgical Patients for Kidney Protection</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>Joseph Fisher</td>
<td>UHN-Toronto General Hospital</td>
<td>Translation of New noninvasive Monitoring Techniques from the Bench to the Bedside</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>Greg Hate</td>
<td>St. Michael's Hospital</td>
<td>Characterizing Physiological and Cellular Mechanisms which Reduce Brain Injury and Promote Survival</td>
<td>$ 40,000</td>
</tr>
<tr>
<td>George Djaiani</td>
<td>UHN-Toronto General Hospital</td>
<td>Reducing Delirium After Cardiac Surgery: A Multifaceted Approach Of Perioperative Care</td>
<td>$ 40,000</td>
</tr>
</tbody>
</table>

Some of our greatest research strengths include staff with research training, a "culture" of research, size and breadth in terms of our research institutes and hospitals, and of course, established principal investigators.
<table>
<thead>
<tr>
<th>RECIPIENT</th>
<th>HOSPITAL</th>
<th>PROJECT TITLE</th>
<th>VALUE OF AWARD/ANNUM</th>
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</thead>
<tbody>
<tr>
<td>Pamela Morgan</td>
<td>Women's College Hospital</td>
<td>Obstetric Team Training and Surgical Safety Checklist Introduction</td>
<td>$40,000</td>
</tr>
<tr>
<td>Pam Angle</td>
<td>Women's College Hospital</td>
<td>Multi-Centered RCT Examining the Effect of Small vs. Large Tuohy-type Epidural Needles on PDPH</td>
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<td>Marcin Wasowicz</td>
<td>UHN-Toronto General Hospital</td>
<td>Use of Volatile Anesthetics for ICU Sedation and Platelet Function in Post-PCI Patients</td>
<td>$40,000</td>
</tr>
<tr>
<td>Richard Brull</td>
<td>UHN-Toronto Western Hospital</td>
<td>Femoral Nerve Block After Total Knee Arthroplasty: A Randomized Placebo-Controlled Double-Blind Trial</td>
<td>$40,000</td>
</tr>
<tr>
<td>Rita Katznelson</td>
<td>UHN-Toronto General Hospital</td>
<td>Melatonin Administration and Postoperative Delirium</td>
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<td>Jean Wong</td>
<td>UHN-Toronto Western Hospital</td>
<td>Efficacy of Intraoperative Topical Application of Tranexamic Acid Versus Placebo</td>
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<tr>
<td>Eric You-Ten</td>
<td>UHN-Mount Sinai Hospital</td>
<td>Preoperative Noninvasive Computer Tomography Coronary Angiogram in Cardiac Risk Stratification</td>
<td>$20,000</td>
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<tr>
<td>Zeev Friedman</td>
<td>UHN-Mount Sinai Hospital</td>
<td>Composite Project: Bridging the Aseptic Technique Gap: Improving Residents' Performance of Aseptic Technique During Regional Anesthesia; Answering the ASRA Challenge: Should Gowning Become Standard of Practice for Neuraxial Anesthesia? etc.</td>
<td>$20,000</td>
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</tbody>
</table>

In 2008-2009, our Research-in-Progress Seminar Series continued to be a popular forum to discuss, nurture and enhance early-stage research ideas. The following seminars were presented in 2008-2009:

**November 17, 2008:**

**Presenter:** Dr. Greg Hare (St. Michael's Hospital): “Effect of Selective Beta-1 Blocker on Resistance Artery Tone: A Proposed Novel Mechanism for Organ Ischemia”

**Discussant:** Dr. Scott Heximer, Department of Physiology, UT

**Presenter:** Dr. Richard Brull (UHN-Toronto Western Hospital): “The Secret Recipe for Continuous Femoral Nerve Blockade Following Total Knee Arthroplasty”

**Discussant:** Dr. Mark Crawford, The Hospital for Sick Children

**March 9, 2009:**

**Presenter:** Dr. Anahi Perlas (UHN-Toronto Western Hospital): “Gastric Ultrasonography: A Non-invasive Tool to Determine Gastric Volume. Development of a Quantitative Model”

**Discussant:** Dr. Mark Crawford, The Hospital for Sick Children

**Presenter:** Dr. Mrinalink Balki (Mount Sinai Hospital): “High-Fidelity Obstetric Anesthesia Simulation: Assessment of Critical Skills of Practicing Anesthesiologists”

**Discussant:** Dr. Greg Hare, St. Michael’s Hospital

**May 7, 2009:**

**Presenter:** Dr. Rita Katznelson (UHN-Toronto General Hospital): “Postoperative Melatonin Administration and Delirium in Patients Undergoing Vascular Surgery”

**Presenter:** Dr. Eric You-Ten (Mount Sinai Hospital): “Impact of Technical Skills on Nontechnical Skills in Anesthesia Crisis Management”

**Discussant:** Dr. Mark Warner, Professor of Anesthesiology and Dean, Mayo School of Graduate Medical Education

Chaired by Dr. Guy Petroz, the 30th Annual Shields Research Day took place on May 8, 2009, and was a great success with over 310 participants from all over the city, including a few local community hospitals. The annual Shields Lecture was given by Dr. Mark Warner (Professor of Anesthesiology, Mayo Clinic) on the topic of “How New Technologies and Practices Will Influence Perioperative Safety”. A copy of the agenda for this day can be found on our departmental website (www.anesthesia.utoronto.ca).
RESEARCH PRODUCTIVITY AND IMPACT

The Department of Anesthesia at the University of Toronto continues to be one of the top Anesthesia research institutions in the world. In the latest Thomson Reuters University Science Indicators rankings, our department was first of all Association of American Universities public institutions. In terms of publications and citations, for the period 2004-2008 our productivity was second only to Harvard University (see Table 1).

<table>
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<tr>
<th>University</th>
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<tr>
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<td>U Washington</td>
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<td>Stanford</td>
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<td>MCGILL</td>
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<td>Johns Hopkins</td>
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<td>MONTREAL</td>
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<td>UC Davis</td>
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<td>UC Los Angeles</td>
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<table>
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<tr>
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<td>Indiana</td>
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<tr>
<td>UC Los Angeles</td>
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</tr>
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</table>

In 2009, the entire University of Toronto ranked 6th in Performance Ranking of Scientific Papers in Clinical Medicine for World Universities, an increase from 12th the year before. While we are proud of our rankings, such broad comparisons tell only part of our story. It is our faculty who have individually and collectively produced such accomplishments. This annual report details publications, grants, awards and presentations and it reveals a vibrant, innovative and diverse community that strives for and achieves excellence in many areas. These lists highlight our commitment to research and knowledge translation related to anesthesia, pain, perioperative medicine, and critical care.

OUR DEPARTMENT CONTINUES TO FOCUS RESEARCH IN THE FOLLOWING AREAS:

- Neuroscience and mechanisms of anesthesia,
- Simulators and human performance
- Innovations in regional analgesia
- Measuring perioperative outcomes and improving patient safety
- Reducing pain following surgery
- Ambulatory care
- Obstetric anesthesia
- Chronic pain
- Perioperative anemia and blood transfusion
- Critical care medicine

Together with our seven fully-affiliated hospitals and five research institutes, we continue to work towards our aim of being a world leader in the generation and dissemination of new knowledge related to anesthesia and perioperative medicine.
OUR DEPARTMENT CONTINUES TO BE THE LEADING ANESTHESIA RESEARCH DEPARTMENT IN CANADA, AND AMONG THE TOP IN PUBLICLY FUNDED UNIVERSITIES IN THE WORLD.
PEER-REVIEWED PUBLICATIONS


Brasher PM, Beattie WS. Adjusting clinical prediction rules: An academic exercise or the potential for real world clinical applications in perioperative medicine? *Can J Anaesth* 56: 190-193, 2009


Chung F, Elsahd H. Screening for obstructive sleep apnea before surgery: Why it is important? *Curr Opin Anaesthesiol* 22: 405-411, 2009


Cooper RM. Concerns about the purported safety of elective flexible bronchoscopic-assisted intubation. *Anesthesiology* 108: 1150, 2008


Lad V, David TE, Vegas A. Mitral regurgitation due to myxomatous degeneration combined with bicuspid aortic valve disease is often due to prolapse of the anterior leaflet of the mitral valve. Ann Thorac Surg 87: 79-82, 2009


Lancee WJ, Maunier RG, Goldblom DS (coauthors for the impact of SARS Study). Prevalence of psychiatric disorders among Toronto hospital workers one to two years after the SARS outbreak. Psychiatric Services 59: 91-95, 2008


Singh, JM, Ferguson, ND, MacDonald RD, Stewart TE, Schull MJ. Ventilation practices and critical events during transport of ventilated patients outside of hospital: A retrospective cohort study. Pre-Hospital Emergency Care 13: 316-323, 2009


Stewart DE, Venos E, Ashraf LJ. Mental health policies on reporting child sexual abuse and physician-patient sexual relations. Curr Opin Psychiatry 8: 45-48, 2009


Stewart DE. Battling depression. CMAJ 178: 1023, 2008

Stewart DE, Malleson AG. Medicos viajeros Bolivianos. CMAJ 178: 602, 2008


Stewart TE. Implementing the best evidence; do not forget to be a good clinician. Crit Care Med 36: 5106-5107, 2008


Vegas A. Assisting the failing heart. Anesthesiol Clin 26: 539-564, 2008


Vigod SN, Stewart DE. Emergent research in the cause of mental illness in women across the lifespan. Curr Opin Psychiatry 22: 396-400, 2009


Chinnappa V, Chung F. What Criteria Should Be Used for Discharge after Outpatient Surgery? In Fleisher L (Ed.) Evidence-Based Practice of Anesthesiology. 2nd Ed. Saunders: Philadelphia, PA, 2009


INVITED LECTURERS

Angle, P
- Sunnybrook Health Services Sciences Symposium. Toronto, Ontario 2008
  "Key issues and barriers to maternity anesthesia care in Ontario"
  "Opening the windows on maternity anesthesia care"
  "A choice between stroke and cardiac arrest – Severe bradycardia and hypotension after spinal anesthesia in a hypertensive patient"

Baliki, M
- 6th Annual Mount Sinai Hospital Obstetric Anesthesia Conference. Toronto, Ontario 2008
  "Postpartum hemorrhage secondary to uterine atony: A growing problem in Canada?"
  "Labor analgesia: Old techniques, new recipes"
- Anesthetic Practice (Workshop Leader and Instructor). Toronto, Ontario 2008
  "Ultrasound for peripheral nerve blocks/neuraxial blocks and vesical access"
- Research-in-Progress, University of Toronto. Toronto, Ontario 2009
  "High-fidelity obstetric anesthesia simulation: Assessment of critical skills of practicing anesthesiologists"
- North York General Hospital Combined Anesthesia and Obstetrical Grand Rounds. Toronto, Ontario 2009
  "Optimizing uterotonic therapy for postpartum hemorrhage - still a way to go..."
  "Ultrasound in regional anesthesia for the obstetric patient"
  "Ultrasound for labour epidural"

Beattie, S
  "Evidence based perioperative medicine"
- Toronto General Hospital Anesthesia Rounds. Toronto General Hospital. Toronto, Ontario 2008
  "The future"
  "The beta blocker controversy"
- XXXVI Chilean Congress of Anesthesiology. Pucón, Chile 2008
  "Beta blockers, statins and aspirin - Are they clinically important? Can the pre-op consult change outcomes?"

Bohn, D
- 7th Middle Eastern Symposium in Anaesthesia and Critical Care for Cardiac Patients. Riyadh, Saudi Arabia 2008
  "Sepsis and paediatric ICU"
  "Role of hypothermia in paediatric patients"
- Critical Care Canada Forum. Toronto, Ontario 2008
  "Glycemic control" (Co-Moderator)
  "A physiological approach to selecting the appropriate crystalloid solution"
  "Cardiopulmonary interactions"
  "Salt, water and cerebral oedema"
- Children's National Medical Center: Annual Lecture in Critical Care. Washington, DC 2008
  "Hypothermia and neuroprotective strategies for critically ill children"
- Joint International Meeting of the 20th Scientific Session of the Saudi Heart Association and the 5th International Cardiac Congress of Saudi Al-Babtain Cardiac Center. Riyadh, Saudi Arabia 2009
  "Non-conventional modes to ventilate cardiac patients"
  "Role of hypothermia in cardiac ICU"
  "Factor VII in bleeding cardiac surgery" (Pro/Con Debate)
  "Pediatric and adult intensive care: State of the art" (Moderator and Speaker)
  "Pediatric case reviews" (Co-Moderator)
- 6th Annual Course on Extracorporeal Membrane Oxygenation. Jeddah, Saudi Arabia 2009
  "New ECMO program"
  "Combined unit for adult and pediatric ECMO"
  "Future of ECMO"
- 2nd International Conference of Neonatal and Childhood Pulmonary Vascular Disease. San Francisco, California 2009
  "Historical perspective and clinical update of postnatal CDH management"
  "Balanced solutions: The solution?"
  "What fluids in pediatric septic shock/ARDS" (Roundtable Presentation)
  "Cardiovascular module" (Chair)
  "How to manage HLHS postnatally" (Roundtable Presentation)
  "Coagulopathy in patients on extracorporeal circuits: From bleeding to thrombosis"
  "ECMO for congenital diaphragmatic hernia? - ECMO for sepsis?" (Roundtable Presentation)
• 6th Chilean Congress on Pediatric Critical Care, Chillán, Chile 2009
  "Essentials of clinical diagnosis and initial treatment of the infant (< 3 months old) with suspected congenital heart disease"  
  "Management of the pediatric patient with acute myocarditis"  
  "The physiopathology of the endocrine dysfunction syndromes in the pediatric critically ill patient"  
  "Management of the endocrine emergencies in PICU. SIADH, panhypopituitarism and adrenal insufficiency"

• New York Society of Pediatric Critical Care Medicine. New York City, New York 2009
  "Salt, water and cerebral oedema – is it the disease or is it the doctor?"

• 5th World Congress of Paediatric Cardiology and Cardiac Surgery, Cairns, Australia 2009
  "Four decades of ECMO: What have we learnt?"  
  "Anaesthesia/Perfusion/intensive care abstract session” (Co-Chair)

Bowry, R
• Toronto Perioperative TEE Symposium. Toronto, Ontario 2008
  "Right ventricular function"

• Centre for Healthcare and Quality Improvement, St Michael’s Hospital, Toronto, Ontario 2009
  "Early reflections in a new era” (with L Mitin Alkhani)

• Toronto Central LHIN Knowledge Exchange, St Michael’s Hospital, Toronto, Ontario 2009
  "Access and flow at St. Michael’s, our journey and lessons learned” (with L Mitin Alkhani)

Bruil, R
• American Society of Regional Anesthesia and Pain Medicine Annual Spring Meeting and Workshop, Phoenix, Arizona 2009
  "Ultrasound knobology” (Invited Lecturer)
  "Basics of physics and artifacts in ultrasound for regional anesthesia” (Invited Lecturer)
  "Ultrasound for neuraxial anesthesia” (Invited Lecturer)
  "Novel applications of ultrasound for regional anesthesia” (Course Moderator)
  "Lower extremity ultrasound workshop” (Workshop Leader)
  "Intensive upper extremity workshop” (Workshop Leader)

• American Society of Anesthesiologists Annual Meeting, Orlando, Florida 2008
  "Artifacts and pitfalls in ultrasound-guided regional anesthesia” (Invited Lecturer)
  "Regional anesthesia cadaver workshop” (Workshop Leader)
  "Ultrasound guided regional anesthesia and clinical skills workshop” (Workshop Leader)
  "Ultrasound guided needle placements” (Workshop Leader)

• American Society of Regional Anesthesia and Pain Medicine, Baltimore, Maryland 2008
  "Excellence in ultrasound-guided regional anesthesia workshops” (Workshop Leader)

• American Society of Regional Anesthesia and Pain Medicine, Chicago, Illinois 2006
  "Excellence in ultrasound-guided regional anesthesia workshops” (Workshop Leader)

Campbell, F
• Conquering the Hurt: Interprofessional Paediatric Pain Conference, The Hospital for Sick Children, Toronto, Ontario 2008
  "The risk of not treating pain” (Invited Speaker, Panel Discussion)
  "Management of complex cases: An interactive forum” (Chair)

• Paediatric Sickle Cell Disease Symposium, Brampton Civic Hospital, Brampton, Ontario 2008
  "Pain management strategies in sickle cell disease”

• Advanced Pain Management across Clinical Settings, Faculty of Nursing Lecture, University of Toronto, Toronto, Ontario 2009
  "Pain management strategies: Complex challenges for acute pain in the presence of persistent pain”

Carvalho, J
• Department of Anesthesia and Pain Management, UHN-MSH Grand Rounds, Toronto, Ontario 2008
  "Ultrasound-facilitated epidurals and spinals in obstetrics”

• Obstetric Anesthesia Conference, Mount Sinai Hospital, Toronto, Ontario 2008
  "Post-operative analgesia for cesarean deliveries: The latest advances”

• NYSORA Ultrasound and Nerve Stimulator Guided nerve Blocks Workshop, New York, New York 2008
  "Ultrasound-facilitated epidurals and spinals in obstetrics”  
  "Spinal ultrasound” (Workshop Instructor)

• Regional Anesthesia and Pain Medicine 2008 Hands-on Workshop, Niagara-on-the-Lake, Ontario 2008
  "Spinal ultrasound” (Workshop Instructor)

• 2008 Annual meeting of the American Society of Anaesthesiology, Orlando, Florida 2008
  "Challenges in obstetric anesthesia: The patient with previous surgical procedures” (Panel)

• 55th Brazilian Congress of Anaesthesiology, Sao Paulo, Brazil 2008
  "Minimally invasive hemodynamic monitoring in the high risk obstetric patient”  
  "Anesthetic management of the cardiac pregnant patient with p-lmonary hypertension”

  "Ultrasound-assisted spinals and epidurals in obstetrics”

• 62nd Post Graduate Assembly: New York, New York 2008
  "Ultrasound-guided spinals and epidurals in obstetrics”  
  "Spinal ultrasound” (Workshop instructor)
• Department of Anesthesiology's Morning Conference Program, University of Florida, Jacksonville, Florida 2009
  "Ultrasound-assisted spinal and epidurals in obstetrics"  
• Obstetric Medicine Rounds, Mount Sinai Hospital, Toronto, Ontario 2009
  "Preventing and treating post-partum pain, why and how: The latest advances"
• XVI Annual Anesthesiology Course (Keynote Speaker), Bogota, Colombia 2009
  "Neuraxial anesthetic techniques assisted by ultrasound: myth or reality?"
  "Alternatives in the management of obstetric hemorrhage"
  "Prevention and management of postdural puncture headache"
  "Spinal ultrasound" (Workshop Instructor)
• Department of Anesthesia, University of North Carolina, Chapel Hill, North Carolina 2009
  "Journal club moderator: Review of current obstetric literature"
  "Ultrasound-guided spinals and epidurals in obstetrics"
  "Spinal ultrasound" (Workshop Instructor)
• Adult and Pediatric Ultrasound and other Peripheral Nerve Block Techniques, Sponsored by the Academy for Continued Healthcare Learning, Washington, DC 2009
  "Ultrasound-guided spinals and epidurals in obstetrics"
  "Spinal ultrasound" (Workshop Instructor)
• 2008 Annual Meeting of the Society of Obstetric Anesthesia and Perinatology, Washington, DC 2009
  "Best paper award presentation session" (Moderator)
• Obstetric Anesthesia 2009, Obstetric Anaesthetists’ Association, Jersey, United Kingdom 2009
  "Masterclass: Spinal ultrasound for epidurals and spinals"
  "Spinal ultrasound" (Workshop Instructor)
• 2009 Annual Meeting of the Canadian Society of Anesthesiologists, Vancouver, British Columbia 2009
  "Spinal ultrasound" (Workshop Instructor)

Chan V
• Gary Johnson Resident Research Day, Department of Anesthesiology, University of Ottawa, Ottawa, Ontario 2009
  "Ultrasound applications in anesthesia"
• Department of Anesthesia, Sir Charles Gairdner Hospital, Perth, Western Australia 2009
  "Ultrasound applications in anesthesia practice"
  "Topics and controversies in regional anesthesia"
• 34th American Society of Regional Anesthesia and Pain Medicine Annual Spring Meeting, Phoenix, Arizona 2009
  "Review of ASRA-ESRA guidelines for curricula"
  "Ultrasound upper extremity" (Workshop)
  "Intensive ultrasound comprehensive workshop" (Workshop)

• Ist International Symposium on Spine and Paravertebral Sonography for Anaesthesia and Pain Medicine, Hong Kong, 2009
  "Sonoanatomy of the upper limb"
  "Ultrasound-guided paravertebral catheter placement: Challenges and pearls"  
  "Basic principles of spine and paravertebral imaging"
  "Sonoanatomy: Upper limb: Radial, median and musculocutaneous nerves" (Workshop)
  "Lumber paravertebral imaging" (Workshop)
• Australian Regional Anaesthesia Cadaveric Ultrasound Seminars, Perth, Western Australia 2009
  "All patients should get regional anesthesia?" (Debate)
  "Ultrasound vs. nerve stimulation for regional anesthesia" (Debate)
  "Brachial plexus below the clavicle" (Workshop)
  "Supraventricular block" (Workshop)
• 2009 Jobson Symposium on Regional Anaesthesia Recent Developments and Outcomes, University of Sydney, Australia 2009
  "Ultrasound guidance for upper limb blocks"  
  "Ultrasound guidance for lower limb blocks"  
  "Ultrasound guided nerve blocks and catheter blocks"  
  "Ultrasound guided regional anesthesia – outcomes data"
  "Newer ultrasound applications for anaesthetic practices"  
• 63rd International Anesthesia Research Society Clinical and Scientific Congress, San Diego, California 2009
  "Ultrasound in regional anesthesia"
  "Advanced ultrasound guided nerve block" (Workshop)
  "Peripheral nerve blocks: Ultrasound, simulation and stimulation" (Workshop)
• Department of Anaesthetics, Royal Prince Alfred Hospital, Sydney, Australia 2009
  "Ultrasound vs. nerve stimulation for regional anesthesia"
  "Clinical pearls for ultrasound guided nerve blocks"
• Department of Anesthesia and Critical Care, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, 2009
  "Ultrasound applications in anesthesia"
• Department of Anaesthesiology, Queen’s University, Kingston, Ontario 2009
  "Ultrasound guided regional anesthesia"
• One Day Ultrasound Conference, West Kowloon Cluster, Hong Kong, China 2009
  "Clinical outcome of ultrasound guided regional anesthesia – Evidence based medicine"
  "Sonographic imaging of the spine"
  "Ultrasound guided continuous catheter technique"
• NYSORA 7th Annual Regional Anesthesia and Acute Pain Management Symposium, New York, New York 2008
  "Ultrasound-guided regional anesthesia: evidence based review"
  "Ultrasound guided sciatic nerve blocks" (Workshop)
  "Current approaches to regional anesthesia – ultrasound"
  "Ultrasound, simulation and stimulation for peripheral nerve blocks" (Workshop)
Chin, K J
- Tan Tock Seng Hospital, Anaesthesia Department Rounds, Singapore 2008
  "Ultrasound-guided regional nerve blocks"
  "Essentials of regional anesthesia"
- Advanced Regional Anesthesia and Ultrasound-Guided Peripheral Nerve Block Workshop, Singapore 2009
  "Applied principles of ultrasound-guided regional anesthesia"
  "Neuraxial ultrasound"
  "Ultrasound guidance for lower limb blocks"
  "Continuous catheter techniques"
  "Regional techniques for lower limb nerve blocks"
  "Organizing a successful regional anesthesia practice"
- 34th Annual Regional Anesthesia Meeting, Society of Regional Anesthesia and Pain Medicine, Phoenix, Arizona 2009
  "Ultrasound-guided ankle block"

Chinnappa, V
- Annual Meeting of the Ontario Dental Anesthesia Society, Toronto, Ontario 2008
  "Post operative nausea and vomiting after ambulatory surgery"
  "Update in ambulatory anesthesia"
  "Consideration in ambulatory anesthesia"
  "Discharge criteria after ambulatory surgery"
  "Obstructive sleep apnea"

Chung, F
- Canadian Anesthesiologists’ Society 65th Annual Meeting, Vancouver, British Columbia 2009
  "Dealing with PONV: Do you have the stomach for this?"
- National Association of PeriAnesthesia Nurses of Canada, Toronto, Ontario 2009
  "Having surgery: STOP and take this test first?"
  "Debate: Should we be the preoperative physicians or just leave it to the Internists?"
  "Obstructive sleep apnea"
- Australian and New Zealand College of Anaesthetists annual meeting, Cairns, Australia 2009
  "Quality of recovery after general anesthesia"
  "Perioperative management of morbidly obese patients"
- Toronto Anesthesia Symposium, Toronto, Ontario 2009
  "Obstructive sleep apnea: Airway implications"
- University of San Diego Medical Centre, San Diego, California 2009
  "OSA and anesthesia"
- Office-Based Anesthesia Interest Group, Toronto, Ontario 2009
  "Discharge issues: What is new?"
- 11th Annual Rural Anesthesia for G.P. Anesthesiologists, Banff, Alberta 2009
  "Ambulatory anesthesia and discharge after office-based anesthesia"
- Hong Kong Sanatorium and Hospital, Hong Kong, China 2008
  "Ambulatory anesthesia, an update"
• XIX Anesthesiology Venezuelan Congress. Caracas, Venezuela 2008
  “OSA Patients: What is the issue? What are the complications?”
  “Ambulatory anesthesia, what is new?”
  “Recovery and discharge after ambulatory surgery”
• American Society of Anesthesiologists Annual Meeting. Orlando, Florida 2008
  “What safety policies should your ASC have?”
  “New anesthetics”
• Ontario Dental Anesthesia Association Annual Meeting. Toronto, Ontario 2008
  “Discharge issues”
  “Patient selection in outpatient facilities”

Clarke, H
• Pfizer Scientific Research Exchange. Canadian Pain Society Meeting, Quebec City, Quebec 2009
  “The effects of perioperative pregabalin use on functional outcomes following total hip arthroplasty”
• Grand Rounds, Sunnybrook Health Sciences Centre, Toronto, Ontario 2008
  “Preventive perioperative multimodal analgesia: An ideal context for the use of Gabapentin and Pregabalin”
• Pfizer Breakfast Research Exchange. Canadian Arthritis Meeting, Toronto, Ontario 2008
  “The effects of perioperative pregabalin use on functional outcomes following total hip arthroplasty”

Cooper, R
• Visiting Professor, The Cleveland Clinic. Cleveland, Ohio 2008
  “Laryngoscopy—Past and future”
  “Resident lunch rounds: Case discussions”
  “Resident rounds: Extubation of the difficult airway”
• Critical Care Medicine Fellows Seminar, University of Toronto. Toronto, Ontario 2008
  “Critical care airway management”
• Critical Care Medicine, University of Toronto. Toronto, Ontario 2008
  “Airway workshop”
• International Congress of Cardiovascular Anesthesia. Berlin, Germany 2008
  “Airway, management—Today and tomorrow” (Moderator and Convener)
• Society for Airway Management. Boston, Massachusetts 2008
  “Comparison of laryngeal views by direct and video laryngoscopy”
  “GlideScope video laryngoscopy: An update”
  “Airway workshop”
• American Society of Anesthesiologists, Orlando, Florida 2008
  “Controversies in airway management: Is video laryngoscopy the future of laryngoscopy?”
  “Fiberoptic intubation—basic” (Workshop)
  “Advanced airway management” (Workshop)
• Southlake Regional Healthcare Annual CME Meeting, King City, Ontario 2008
  “Lecture: Laryngoscopy—Past and future”
  “Video laryngoscopy—state of the art” (Workshop)

Cox, P
• 14th Annual International Symposium (Critical and Emergency Care in Pediatrics). Buenos Aires, Argentina 2009
  “Diagnosis infectious diseases”
  “Patient security tolerance to hypoxemia”
• 1st NGHA AI Ahsa International Pediatric Conference. Dammam, Saudi Arabia 2009
  “Transport of the paediatric critical care patient”
  “Setting up Infection control system”
• Annual Conference of the Pediatric Cardiac Society of India. Cochin, India 2008
  “Early de-intensification: Who and how”
  “Managing failed extubation: A practical approach”
  “Diagnosis and management of sepsis early after cardiac surgery”
• Anaesthesia Practice 2008, University of Toronto. Toronto, Ontario 2008
  “Essential airway tools”
  “Airway workshop” (Workshop convener)
• Duke University CME, Anesthesia Camp. St. Thomas, USVI North Carolina 2009
  “Laryngoscopy—Past and future”
  “Is direct laryngoscopy obsolete?”
  “Anesthesia information management”
  “Extubation of the difficult airway”
  “Morbidty and mortality rounds”
  “Sail with the professors: Case discussion”
• XIII Curso Teórico-Práctico De Manejo de la Vía Aérea e Intubación Difícil. Valencia, Spain 2008
  “Is direct laryngoscopy obsolete?”
  “GlideScope VL (Workshop)”
• Michigan Society of Anesthesiologists. East Lansing, Michigan 2009
  “Laryngoscopy—Past and present”
• Baylor College of Medicine Difficult Airway Workshop. Houston, Texas 2009
  “Beyond the view with reference to video-laryngoscopy”
  “GlideScope VL Update”
  “GlideScope VL” (Workshop)
• Toronto Anesthesia Symposium. Toronto, Ontario 2009
  “Video laryngoscopy—What’s new?”
  “Alternatives—video, stylus and fiberscopes” (Workshop convener)
• SEDAR (Spanish National Congress of Anaesthesiologists). Salamanca, Spain 2009
  “Laryngoscopy—Past and future”
  “Video laryngoscopy” (Workshop)
• European Society of Anaesthesiologists (European Airway Management Society) Annual Scientific Meeting. Milan, Italy 2009
  “Video laryngoscopy (EAMS sponsored event)” (Workshop)
  “Video laryngoscopy: Clinical applications (Verathon sponsored event)” (Moderator)
  “Video laryngoscopy—a new airway paradigm?”
  “Is direct laryngoscopy obsolete? (McGrahl Aircraft Medical sponsored event)”
• Annual Canadian Critical Care Conference. Whistler, British Columbia 2009
  “Withdrawal of nutrition and hydration.”

Davallou, M
• Obstetric Anesthesia Workshop, Women’s College Hospital, Toronto, Ontario 2008
  “Neurological complications after regional anesthesia”

Davies, S
• 1st Annual Medical-Dental International Scientific Conference. Paris, France 2008
  “Anesthesia pot pourri – Bridging the gap from home to hospital.”
• Anesthetic Practice. Toronto, Ontario 2008
  “Septic complications of regional anesthesia”
• Grand Rounds, Southlake Regional Health Centre, Newmarket, Ontario 2009
  “Revisiting Amniotic fluid embolus”

Devito, I
• 6th Annual Mount Sinai Hospital Obstetric Anesthesia Conference. Toronto, Ontario 2008
  “Central neurological complications of regional anesthesia in obstetrics”
• Anesthesia Practice. Toronto, Ontario 2008
  “Trouble rounds in obstetric anesthesia”

Djajani, G
• TEE Symposium. Toronto, Ontario 2008
  “Beyond myectomy”

El-Beheiry, H
• Anesthesia Grand Rounds, Trillium Health Centre. Mississauga, Ontario 2008
  “The perioperative use of vasoressors”

Fisher, J
• Chronic Hypoxia Symposium. La Paz, Bolivia 2008
  “The oxyhemoglobin dissociation curve in Vivo. Part I: Gaining control of PO2 and PCO2 independently of each other and independently of minute ventilation.”
  “The oxyhemoglobin dissociation curve in Vivo. Part II: A field test of acclimatization and adaptation to altitude?”
• 7th Imaging Symposium, Sunnybrook Health Sciences Centre, Toronto, Ontario 2008
  “The potential of BOLD MR. Cerebro-vascular reactivity analysis for assessing vascular dementia: Building a better brain.” (with Jay S. Hau, presenter)

Friedman, Z
• Canadian Anesthesiologists’ Society meeting. Vancouver, British Columbia 2008 (with Vern Naik, Deven Chandra, Jordan Tashis)
  “Debriefing for simulation: When, where and who”
  “Teaching and education for ambulatory anesthesia – The triple challenge: Surgeons, residents and staff”
• Toronto Anesthesia Symposium. Toronto, Ontario 2009
  “Difficult airway PBLD - Obstructive sleep apnea and a mallampati 4 patient.”
• International Conference on Resident Education - Royal College of Physicians and Surgeons of Canada Simulation Summit. Ottawa, Ontario 2008 (with Vern Naik, Deven Chandra, Dylan Boud)
  “Debriefing in the real world: Practical debriefing techniques” (Simulation and debriefing workshop)

• MSR Medical Simulation Center, Sheba Medical Center, Tel Aviv University. Tel Aviv, Israel 2008
  “Sleep deprivation – How does it affect manual skill?”

Gaglione, L
• Ontario Telehealth Network and Baycrest Hospital. Toronto, Ontario 2009
  “Global year against cancer pain: Cancer pain in older people”
• 12th World Congress on Pain. Glasgow, Scotland 2008
  “Postoperative pain and aging: Towards a biopsychosocial model”

Goldsmidt, E
• Toronto Anesthesia Symposium. Toronto, Ontario 2009
  “The obstetric airway”
  “Problem-based learning: Emergency C-section in a women with scleroderma”
• UHN-MSH Academic Day on Maternal Heart Disease. Toronto General Hospital. Toronto, Ontario 2009
  “Anesthesia for maternal heart disease”
• Anesthetic Practice. Toronto, Ontario 2008
  “Ultrasound for vascular access workshop”
• Grand Rounds, Mount Sinai Hospital. Toronto, Ontario 2008
  “Broken epidural catheter”
• Anesthesia Assistant Professional Development Day. Toronto General Hospital. Toronto, Ontario 2008
  “Obstetric anesthesia for anesthesia assistants”
• 6th Annual Mount Sinai Hospital Obstetric Anesthesia Conference. Toronto, Ontario 2008
  “The epidural test dose”

Halpern, S
• Euroanaesthesia. Milan, Italy 2009
  “Labour analgesia—Analgesia and labour outcome, an EBM approach”
• 35th Annual Virginia Appar Seminar. Tampa, Florida 2009
  “Conversion of epidural analgesia for labor to anesthesia for cesarean section: Practical considerations”
  “The morbidity obese parturient”
  “The epidural test dose”
• 3rd Annual Obstetric Anesthesia Day. Women’s College Hospital. Toronto, Toronto 2008
  “Troublesome epidural? More trouble than you think!”
• 2nd Annual Obstetric Anesthesia Workshop. Women’s College Hospital. Toronto, Ontario 2008
  “Anesthesia for the obese parturient for urgent delivery”
• 21st International Congress of the Israel Society of Anesthesiologists. Tel Aviv, Israel 2008
  “Modern labour analgesia” (Session Chair)
  “Pro-Con debate. The time has come to abandon the epidural test dose for labor. Pro”
  “Ultrasound for lumbar neuraxial blocks” (Workshop)

Jadad, A
• Galil Center for Medical Informatics, Telemedicine and Personalized Medicine. Haifa, Israel 2008
  “eHealth innovations in the new era”
• 4th Annual DeGroot Health Services Management Alumni Dinner and Speaker Event. McMaster University, Hamilton, Ontario 2008
  “Canadian Health Services in the age of mobile communications and social networks: Are we meeting our children’s expectations?”

• 8th Princess Margaret Hospital Conference on New Development in Cancer Management: Conquering Cancer in our Lifetime. PMH/OCI 50th Anniversary. Toronto, Ontario 2008
  “Promise of eHealth”

• Canadian Arthritis Network 2008 Annual Scientific Conference. Toronto, Ontario 2008
  “Arthritis in the age of social networks.”

  “Food and human health: a view from the age of social networks.”

• Perioperative Services Grand Rounds. Sick Kids Hospital. Toronto, Ontario 2008
  “Toward a person-centered health system in the age of humanocides and demographic turmoils: An ethics minisymposium.”

• Fundación Sanitas. Universidad Politécnica de Madrid. Spain 2008
  “E-salud: el impacto de las redes sociales.”

  “Technology in palliative and supportive care delivery.”

• Toronto General Research Institute. Toronto, Ontario 2008
  “Updates on research at the centre for global eHealth innovation” (with Eddy T)

• AGM for Willow Breast Cancer Support Canada. Toronto, Ontario 2008
  “Supporting each other in the age of social networks.”

• Public Health Method’s seminar. Toronto, Ontario 2008
  “Towards Public eHealth: A view from the age of social networks and global telecommunications.”

• 40th Professional Practice Conference held by the Canadian Society of Hospital Pharmacists. Toronto, Ontario 2009
  “Pharmacy and the pharmacist in the age of the internet and social networks. Are they needed?”

• North York General’s Board Quality Committee. North York, Ontario 2009
  “The role of hospitals in the age of eHealth.”

• Knowledge Media Design Institute (KDMI) at 13 Lecture Series. Toronto, Ontario 2009
  “Leveling the playing field for optimal health.”

• Sick Kids- The Hospital for Sick Children. Toronto, Ontario 2009
  “Food and health in the age of internet and mobile telecommunications: is it time to enable our kids to lead?”

• ELN (Emerging Leaders Network) workshop. Toronto, Ontario 2009
  “Will we be able to transform our health system soon enough?”

• Ovations Chronic Disease initiative. UnitedHealth Group. Online presentation by Elluminate 2009
  “Dealing with the complex chronic diseases, worldwide.”

• Clinical Epidemiology Synthesis Sessions. Department of Health Policy, Management and Evaluation, Faculty of Medicine, University of Toronto, Toronto, Ontario 2009
  “Innovation: The unwritten story.”

  “Will we be able to innovate in time? Meeting the health care expectations of the Obama generation.”

  “What if you could change the world?”

  “Dealing with obesity in the age of the internet, social networks, and global communications.”

• “Leadership in Medicine” seminar series with emphasis on social responsibility. University of Toronto. Toronto, Ontario 2009
  “Innovation and human health in the age of social networks and global telecommunications: a conversation with Alex Jadad.”

• FESABID - Federación Española de Sociedades de Archivística Biblioteconomía, Documentación y Museística event. Zaragoza, Spain 2009
  “Información, Internet y Salud.”

  “Think big, act small, deliver quickly and leverage like (heck): Opportunities for health system transformation in the age of the internet.”

  “Supporting each other in the age of the internet: Practical survival tips for smart patients.”

• Canadian Health Libraries Association (CHLA) Conference. Winnipeg, Manitoba 2009
  “Health, libraries and knowledge in the age of the internet, social networks and mobile telecommunications.”

• Posibilidades de la Telesalud en la era de las redes sociales y las telecomunicaciones globales. Panel Hacia Un Plan País En Tele- salud. Bogotá Colombia, 2009

  “Are we ready to lead the transformation of the health system?”

  “When people live and die with multiple chronic diseases: Meeting a new global public health challenge in the age of the internet and social media.”

Karkouti, K

• National symposium on management of hemostasis in cardiac surgery. Paris, France 2009
  “Use of novel hemostatic agents in cardiac surgery”

• Queen Elizabeth II Hospital. Halifax, Nova Scotia 2009
  “Burden and management of excessive blood loss in cardiac surgery.”
• Vancouver General Hospital, Grand Rounds, Vancouver, British Columbia 2008
  “The anemia paradox: increased risk with both anemia and blood transfusion”

• Jewish General Hospital, Grand Rounds, Montreal, Quebec 2008
  “Burden and management of excessive blood loss in cardiac surgery”

• North York General Hospital, Grand Rounds, Toronto, Ontario 2008
  “Burden and management of anemia”

• Washington Hospital Center, Cardiology and CVS Rounds, Washington, District of Columbia 2008
  “Risk associated with preoperative anemia in cardiac surgery”

• Canadian Perioperative Anesthesia and Medicine meeting, Hamilton, Ontario 2009
  “Towards a practical and rational transfusion protocol”

• Society of Cardiovascular Anesthesiologists’ 14th Annual Update on Cardiopulmonary Bypass, Whistler, British Columbia 2009
  “Platelet transfusions: How bad are they, really?”
  “Anemia and mortality”

• American Heart Association Annual Meeting, New Orleans, Louisiana 2008
  “Is Factor VIIa the magic bullet?”

• Polish Anaesthesia and Intensive Care Conference, Krakow, Poland 2008
  “The anemia paradox: increased risk with both anemia and blood transfusion”

• International Congress of Cardiovascular Anesthesiologists, Berlin, Germany 2008
  “Propensity analysis versus logistic regression: Aprotinin trials”

• American Society of Anesthesiologists’ Annual Meeting, Orlando, Florida 2008
  “Blood conservation: Past, present, and future”

• Ontario Hospital Association Annual Meeting, Niagara Falls, Ontario 2008
  “Perioperative anemia and transfusion”

• Society of Cardiac Anesthesiologists Annual Meeting, Vancouver, British Columbia 2008
  “The anemia paradox: increased risk with both anemia and blood transfusion”

Karski, J

• Sixth Annual Toronto Perioperative Transesophageal Echocardiography Symposium, Toronto, Ontario 2008
  “TGH experience with 3D TEE” (Program Director).

Karsli, C

• Pediatric General Surgery Fellowship Seminar Series, The Hospital for Sick Children, Toronto, Ontario 2009
  “Special considerations in pediatric anesthesia” (Invited Lecturer)

• Annual Ontario Anesthesia Meeting, Niagara Falls, Ontario 2008
  “Pediatric issues of concern” (Invited Lecturer)

• Pediatric General Surgery/Urology Laparoscopy Course, Toronto, Ontario 2008
  “Anesthesia for pediatric laparoscopic surgery”

Kashin, B

• Anaesthesia Rounds, North York General Hospital, Toronto, Ontario 2009
  “Ultrasound guided nerve blocks for chronic pain”

• Grand Rounds, Emergency Department at North York General Hospital, Toronto, Ontario 2009
  “Diagnosis and treatment of acute low back pain”

Katz, J

• IMMPACT XI (Invited Participant), Arlington, Virginia 2009
  “Development of consensus recommendations on preemptive analgesia and prevention of chronic pain”

• CIHR Funded Consensus Conference (Invited Participant), Mount Sinai Hospital, Toronto, Ontario 2008
  “Integrating neural and clinical science perspectives on mindfulness training in health and disease”

• Atlantic Provinces Inter-Professional Pain Conference, Halifax, Nova Scotia 2008
  “The transition from acute to chronic pain and the importance of treating both”

• Resident Seminar, McGill University, Royal Victoria Hospital, Montreal, Quebec 2008
  “Factors involved in the transition of acute, time-limited pain to chronic post-surgical pain”

• The Hyman Brock Memorial Lecture, McGill University, Montreal General Hospital, Montreal, Quebec 2008
  “Chronic post-surgical pain”

• Pain Education Day, Canadian Pain Society Annual Conference, Quebec City, Quebec 2009
  “The transition of acute to chronic post-surgical pain”

• Acute Postoperative pain and the Transition to Chronicity: Pain Education Day, Canadian Pain Society Annual Conference, Quebec City, Quebec 2009
  “The transition of acute to chronic post-surgical pain”

Katznelson, R

• Ontario PeriAnesthesia Nurse Association Conference, Toronto, Ontario 2008
  “Awareness during anesthesia”

• Research seminar, Department of Urology, University of Toronto, Toronto, Ontario 2009
  “Cerebral blood flow and laparoscopic surgery”

• Research Seminar, University of Toronto, Toronto, Ontario 2009
  “Melatonin and postoperative delirium”

Kavanagh, BP

• Israel Society of Anesthesiologists’ International Congress, Tel Aviv, Israel 2008
  “Evidence-based anesthesia”

• European Society of Intensive Care Medicine, Lisbon, Portugal 2008
  “Ventilator-induced lung injury”

• Washington University School of Medicine, St. Louis, Missouri 2008
  “Grand rounds”
Kealey, A
  "Basic lower limb ultrasound" (Workshop)
- American Society of Regional Anesthesia and Pain Medicine Excellence In Ultrasound-Guided Regional Anesthesia Workshop, Baltimore, Maryland 2008
  "Ultrasound guided regional anesthesia"
- Regional Anesthesia and Pain Medicine Annual Workshop, Niagara-on-the-Lake, Ontario 2008
  "Analgescic techniques for laparoscopic surgery" (Workshop)
  "Intensive upper and lower limb ultrasound" (Workshop)
- Optimizing Functional Outcome Symposium, Holland Orthopaedic and Arthritic Centre, Toronto, Ontario 2008
  "Managing the patient with peripheral nerve blocks in the postoperative period"
- Annual Mont Tremblant Perioperative Conference, Tremblant, Quebec 2009
  "Should I cancel this case?"
  "Ultrasound for regional anesthesia" (Workshop)
- Royal Victoria Hospital, Barrie, Ontario 2009
  "Continuous peripheral nerve blocks"

Laflamme, C
- Memorial University, (Invited Professor). St. John's, Newfoundland and Labrador 2008
  "Reducing surgical site infections"

Macarthur, A
- Southern University of New York, Department of Anesthesia (Visiting Professor), Long Island, New York, 2009
  "Update of obstetric anesthesia"
- University of McGill Anesthesia Update (Invited Speaker), Montreal, Quebec 2009
  "Update of obstetric anesthesia"
  "Every women should have a CSE for labor analgesia" (Debate)
- Grand Rounds, Department of Anesthesia, St. Michael’s Hospital (Invited Speaker), Toronto, Ontario 2009
  "Update of obstetric anesthesia"
- 6th Annual Mount Sinai Hospital Obstetric Anesthesia Conference (Invited Speaker), Toronto, Ontario 2008
  "Anesthetic considerations for the EXIT procedure"

Manninen, P
- IOM Annual Meeting, Toronto, Ontario 2008
  "Anesthetic considerations for intraoperative monitoring"
- North York General Hospital, Department of Anesthesia Grand Rounds, Toronto, Ontario 2008
  "Anesthetic considerations for carotid endarterectomy"
- St. Michael’s Hospital, Toronto, Ontario 2008
  "St. Michael’s Hospital Anesthetic considerations for intraoperative monitoring"
- ISNACC, Trivandrum, India 2009
  "Airway management of patients with cervical spine disease"
  "The practice of neuroanesthesia in Canada"
McCartney, C

- American Society of Regional Anesthesia, Cancun, Mexico 2008
  "Ultrasound changed the way we perform upper extremity blocks"
  "Masterclass: Upper extremity blocks" (Workshop)
  "Ultrasound-guided nerve blocks" (Workshop)
- World Congress of Pain Satellite Symposium, Glasgow, Scotland 2008
  "Use of ultrasound for diagnosis and management of chronic pain" (Course Organizer)
  "Ultrasound-guided brachial plexus block and ultrasound for lumbar medial branch block"
- The Art of Plexus Anesthesia, University College Dublin, Dublin, Ireland 2008
  "Ultrasound guided brachial plexus block: current status and future directions" (Keynote Address)
  "Blocks anterior to the hip and blocks below the clavicle" (Workshop)
- Department of Anesthesia, Cork University Hospital, Cork, Ireland 2008
  "Ultrasound guided brachial plexus block: current status and future directions"
- American Society of Anesthesiologists’ Annual Meeting, Orlando, Florida 2008
  "Ultrasound guidance for continuous catheter techniques"
  "Ultrasound guided regional anesthesia" (Workshop)
- NYSORA Annual Meeting, New York, New York 2008
  "Approach to difficult blocks"
  "Single shot and catheter techniques for supraclavicular block" (Workshop)
- ASRA meeting, Phoenix, Arizona 2009
  "Evidence-base for ultrasound-guided brachial plexus blocks"
  "Upper extremity nerve block comprehensive workshop" (Workshop)
  "Intensive ultrasound comprehensive workshop" (Workshop)
- Carolina Cadaver Course, Wake Forest, North Carolina 2009
  "Intercalane brachial plexus blocks"
  "Ultrasound guided upper and lower limb blocks" (Workshop)
- ASRA Excellence in Ultrasound Workshops, Baltimore, Maryland 2009
  "Brachial plexus blocks below the clavicle"
- Regional Anesthesia and Pain Medicine, Niagara, Ontario 2008
  "Continuous femoral nerve block after total knee replacement: acute pain control without loss of function."
  "Masterclass: Regional anesthesia for upper and lower limb techniques" (Panel Discussion)
- 4th year undergraduate biology class, University of Toronto, Toronto, Ontario 2008
  "Biology of pain"
- St. Michael’s Hospital, Department of Anesthesia, Grand Rounds, Toronto, Ontario 2009
  "Ultrasound-guided brachial plexus blocks: past, present and future"
- North York General Hospital, (Invited Lecturer), Toronto, Ontario 2009
  "Ultrasound-guided brachial plexus blocks: past, present and future"
- Canadian Anesthesiologists’ Society Annual Meeting, Vancouver, British Columbia 2009
  "Con: Intraneural injection should not be used for peripheral nerve block"

McCluskey, S

- Canadian Society of Transfusion Medicine, Annual Meeting, Ottawa, Ontario 2009
  "Clinical management of anemia in the perioperative setting"
- North York General, Toronto, Ontario 2009
  "Perioperative fluid therapy: Protocols or pragmatism"
  "Preoperative evaluation of the non-cardiac surgical patient"

McDonnell, C

- St. Michael's Hospital, Department of Anesthesia, Grand Rounds, Toronto, Ontario 2009
  "Development of a morbidity and mortality program: pitfalls, pitstops and pyrrhic victories"

McGrath, P

- World Congress on Pain (invited Symposium Speaker), Glasgow, Scotland 2008
  "Electronic pain measures for children"

McRae, K

  "Oral decontamination for lung transplant recipients with Chlorhexidine mouthwash"
- Department of Anesthesia Education Rounds, Harefield Hospital, London, United Kingdom 2009
  "Endobronchial devices"

Meineri, M

- Annual TEE Symposium, Toronto General Hospital, Toronto, Ontario 2008
  "Assessment of LV function"
- UHN, Anesthesia Assistance Update, Toronto, Ontario 2009
  "Transesophageal Echocardiography"
- Grand Rounds, Universitat de Granada (Visiting Professor), Granada, Spain 2009
  "Trans-catheter aortic valve implantation"
- Visiting Professor, Grand Round, University of Western Ontario (Visiting Professor), London, Ontario 2009
  "TEE for trans-catheter aortic valve implantation"
- Anesthesia Residents Lecture, University of Western Ontario (Visiting Professor), London, Ontario 2009
  "Understanding cardiac anatomy for adults with congenital heart disease"
- Canadian Anesthesiologists’ Society Annual Meeting, Vancouver, British Columbia 2009
  "New technologies in transesophageal echocardiography: 3D TEE"
Middleton, C
- Respiratory Therapy Society of Ontario Fall Education Forum, Niagara Falls, Ontario 2008
  “Anesthesia assistants: The education experience”

Morgan, P
- Obstetric Anesthesia Conference, Anesthetic Practice, Toronto, Ontario 2008
  “Who to save: mother or baby?” (Keynote Lecture, Provincial Audience)
- The World Health Organization and the Safe Surgery Saves Lives Campaign, Combined Rounds Anesthesia and Operating Room Nurses and Administration, Women’s College Hospital, Toronto, Ontario 2009
- McGill Anesthesia Update, Montreal, Quebec 2009
  “Simulation: does it improve patient safety?”
- Patient Safety Symposium, Canadian Anesthesiologists’ Society Annual Meeting, Vancouver, British Columbia 2009
  “Patient safety: Yesterday, today and tomorrow” (Moderator)

Murphy, P
- ASA Annual Refresher Course Lecture Annual Meeting, Orlando, Florida 2008
  “Complex coagulation abnormalities”
- ASCCA Annual Meeting, Orlando, Florida 2008
  “Testing physiologic limits in Antarctica”
- Toronto TEE Symposium, Toronto, Ontario 2008
  “Clinical decision making in cardiac surgery”
  “Thoracic anesthesia”
  “Great expectations: What to expect in the oral exam”
- Annual Update in CPB, Whistler, British Columbia 2009
  “RFVIA fact, fiction and anecdote”

O’Leary, G
- 53rd Annual Ontario Medical Anesthesia Meeting, Niagara Falls, Ontario 2008
  “The role of advanced practice nurses in the delivery of anesthesia care in Ontario”
  “Welcome and opening remarks”
  “Anesthesia care teams”

Oser, B
- Biochemical Society Meeting, St. Andrews, Scotland 2009
  “GABA receptors in health and disease”
- OXION Lecturer, Oxford University, Oxford, England 2009
  “Intravenous and plasticity”
- International Anesthesia Society, San Diego, California 2009
  “Awareness during anesthesia”
- Association of Anesthetists of Great Britain and Ireland (keynote address), London, United Kingdom 2009
  “From bench to bedside, translating basic science research into clinical practice” (Keynote)

- Department of Medicine, University of Toronto, Toronto, Ontario 2009
  “Perioperative memory disorders: Mechanisms and models”
  “Drug safety”
  “Keynote address”
- New York Society of Anesthesiologists, New York, New York 2008
  “Pro/Con debate: Monitoring will prevent this problem”
  “Management of challenging medical issues: Awareness”
- Mendelson Lecture, University of Toronto, Toronto, Ontario 2008
  “Awareness during anesthesia”
- Ontario Medical Association Meeting, Anesthesia Section, Niagara Falls, Ontario 2008
  “What’s that you say? Cognitive impairment in your patients”
- American Society of Anesthesiologists, Orlando, Florida 2008
  “Awareness during anesthesia: Will it ever be safe to go back in the water?”
  “Panel on anesthesia and memory”
- John F. Macdonald Symposium, Faculty of Medicine, University of Toronto, Toronto, Ontario 2008
  “Amnesia, memory block and GABA receptors”

Pellowski, A
- Nurses’ Gallie Day, The Hospital for Sick Children, Toronto, Ontario 2009
  “Post-anesthetic emergence delirium in children”
- Ontario Peri-Anesthesia Nurses’ Association Meeting, Toronto, Ontario 2008
  “Post-anesthetic emergence delirium in children”

Peng, P
- Canadian Anesthesiologist Society Annual Conference, Vancouver, British Columbia 2009
  “Ultrasound-guided injection for torso” (Masterclass)
  “Ultrasound-guided spine injections” (Lectures)
  “Ultrasound-guided injection-peripheral structures” (Workshop)
- Community Physician CME, Toronto, Ontario 2009
  “The aging baby boomers- from OA, to TJA and beyond” (Lecture)
- Canadian Pain Society Annual Conference, Quebec City, Quebec 2009
  “Launch of pain resource center”
- Teach the Teachers-Intensive Cadaver Workshop, ASRA (ESRA) Ultrasound for Pain Medicine SIG meeting, Innsbruck, Austria 2009
  “What have we learned/experienced from previous educational activities” (Chair, Round Table Discussion)
  “My Current Practice/interest” (Workshop)
• Ultrasound for Pain Medicine Workshop. Toronto, Ontario 2009
  "Piriformis/pudendal injection, suprasacral nerve, intercostal nerve block" (Workshop)
  "Piriformis/pudendal injection, suprasacral nerve, intercostal nerve block" (Lecture)

• Canadian Interventional Pain Course, Canadian Pain Society. Montreal, Quebec 2009
  "Ultrasound for pain medicine" (Workshop)
  "Ultrasound an emerging technology for pain management." (Lecture)

• Chronic Pain Refresher Course, Canadian Pain Society. Toronto, Ontario 2009
  "Anticonvulsants" (Lecture)

• University of Toronto-Citywide Combined Pain Round. Toronto, Ontario 2009
  "Pudendal neuralgia" (Lecture)

  "Ultrasound for pelvic pain block" (Lecture)
  "Ultrasound-guided pudendal nerve block" (Lecture)

• Ultrasound for Pain Medicine Workshop. Toronto, Ontario 2008
  "Piriformis/pudendal injection, suprasacral nerve, lateral femoral cutaneous nerve block" (Workshop)
  "Piriformis/pudendal injection, suprasacral nerve, lateral femoral cutaneous nerve block" (Lecture)

Perlas, A

• 2nd Annual Ultrasound-guided Regional Anesthesia Workshop, Mexican Federation of Anesthesiology. Los Cabos, Mexico 2008
  "Physical basis of ultrasound and sonanatomy" (Lecture)
  "Ultrasound of the brachial plexus" (Lecture)
  "Ultrasound of the sciatic nerve" (Lecture)

• 8th Panamerican Symposium of regional Anesthesia-LASRA. Buenos Aires, Argentina 2008
  "Ultrasoundography of the neuraxis" (Lecture)
  "Basic physics of ultrasonography" (Lecture)
  "Ultrasound guided brachial plexus blocks" (Workshop)

• 2nd international Regional Anesthesia Congress, Latinamerican Society of Regional Anesthesia-Mexico. Mexico City, Mexico 2008
  "Ultrasound guided brachial plexus block" (Lecture)
  "Ultrasound guided lumbosacral plexus blocks" (Lecture)

• 15th Annual University of Toronto Regional Anesthesia and Pain Medicine Hands-on workshop. Niagara-on-the-Lake, Ontario 2008
  "Intensive upper limb workshop" (Workshop)
  "Intensive lower limb workshop" (Workshop)
  "Local Anesthetic toxicity and treatment" (Lecture)

• American Society of Anesthesiologists Annual Meeting, Orlando, Florida 2008
  "Ultrasound guided brachial plexus blocks" (Workshop)

• Varkey Ultrasound Guided Regional Anesthesia and Anatomy Update. London, Ontario 2008
  "Lower limb blocks" (Lecture)
  "Upper limb blocks" (Workshop)

• North York General Hospital Anesthesia Grand Rounds. Toronto, Ontario 2009
  "Local anesthetic toxicity and treatment"

• American Society of Regional Anesthesia Annual Meeting. Phoenix, Arizona 2009
  "Ultrasound guided brachial plexus blocks" (Workshop)
  "Ultrasound and Neuraxial blocks: Review of the evidence" (Lecture)
  "PBL session: Rescue blocks. When your regional anesthesia isn’t perfect"

Prasad AG

• Indian Society of Anesthesia - Madurai Branch, Scientific Meeting. Madurai, India 2009
  "Ultrasound guided regional anesthesia"

Rigamonti, A

• Core program, Anesthesia Residents Lectures, University of Toronto. Toronto, Ontario 2009
  "ICP, brain tumors and pituitary adenoma"

• Critical care residents, St. Michael’s Hospital. Toronto, Ontario 2009
  "Intracranial hemorrhage"

Siddiqui, N

• Province Wide Sleep Rounds: Department of Neuropsychiatry and Sleep Medicine, University of Toronto, Toronto Western Hospital. Toronto, Ontario 2008
  "Narcotics: An anesthesiologists’ perspective of CSA"
  "Anesthetic Practice. Toronto, Ontario 2008
  "Ultrasound for vascular access workshop"

Slinger, P

• Bev Leech Memorial Lecturer, University of Saskatchewan, Department of Anesthesia. Saskatoon, Saskatchewan 2009

• David S. Sheridan Memorial Lecturer, Albany Medical Center. Albany, New York 2008

• Annual Meeting Spanish Society of Anesthesia and Reanimation. Salamanca, Spain 2009
  "Pro- Thoracic epidural is the optimal method of post-thoracotomy analgesia"

• Controversies in Perioperative Medicine. La Rioja, Spain 2009
  "Creation/Evolution of Thoracic Anesthesia"
  "The sinuway. Upper, lower and beyond"
  "The aging respiratory system and anesthesia and surgery"
  "Applying respiratory physiology"
  "Perioperative lung protection"

• Dannemiller Review Course in Anesthesiology. Chicago, Illinois and San Antonio, Texas 2009
  "Preoperative assessment"
  "Lung isolation"
  "One-lung ventilation"
  "Mediastinal masses"
  "Post-thoracotomy analgesia"

• Department of Anesthesiology, University of Buffalo (Visiting Professor). Buffalo, New York 2009
  "Ventilatory management for everyday. Lessons learned from thoracic anesthesia"

• CanAm Anesthesia Conference. Niagara Falls, Ontario 2009
  "Ventilatory management for everyday. Lessons learned from thoracic anesthesia"
• Annual meeting of the Society of Cardiovascular Anesthesiologists. San Antonio, Texas 2009
  “Bronchial blockers”
  “Lung isolation workshop”

• Toronto Anesthesia Symposium. Toronto, Ontario 2009
  “Lung isolation workshop”

• Recent Advances In Anesthesia and Pain Management. National Guard Health Affairs. Riyadh, Saudi Arabia 2009
  “Preoperative assessment for pulmonary resection”
  “Post-sternotomy analgesia”
  “Lung isolation in a patient with a difficult airway”

• Annual New York Anesthesiology Review. Orlando, Florida 2009
  “Lung isolation”
  “Management of one-lung anesthesia”
  “Respiratory physiology”

• International Anesthesia Research Society. Annual Meeting. San Diego, California 2009
  “New insights on one-lung ventilation”

• Iowa International Anesthesia Symposium. Cabo San Lucas, Mexico 2009
  “Preoperative pulmonary function tests”
  “Anesthetic implications of severe COPD”

• Ontario Thoracic Society. Toronto, Ontario 2009
  “Management of the difficult airway”

• Department of Anesthesiology, University of Louisville, Louisville Society of Anesthesiologists (Visiting Professor). Louisville, Kentucky 2009
  “Preoperative assessment for pulmonary resection”

• Wake Forest University Advances in Physiology and Pharmacology in Anesthesia. Greensboro, West Virginia 2008
  “Preoperative assessment for pulmonary resection”
  “What’s new in thoracic anesthesia”

• Perioperative Transesophageal Echocardiography Symposium. Toronto, Ontario 2008
  “Teaching future Anesthesiologist/Echocardiographers”

• Annual Meeting American Society of Anesthesiologists. Orlando, Florida 2008
  “Preoperative assessment for pulmonary resection”
  “Bronchial blockers”
  “Lung isolation with a difficult airway”

• Department of Anesthesiology, University of Virginia (Visiting Professor). Charlottesville, Virginia 2008

• Annual Meeting, Anesthesia Section, Ontario Medical Association. Niagara Falls, Ontario 2008
  “When do we need preoperative pulmonary function tests?”

• 11th International Congress of Cardiovascular Anesthesiology. Berlin, Germany 2008
  “New insights into one-lung ventilation”
  “Bronchial blockers”

• New York State Society of Anesthesiologists, District 4, Albany, New York, 2009
  “Lung isolation: New insights on old and new equipment.”

Steel, A
• Department of Anesthesia and Multi-organ Transplant Combined Rounds, University Health Network, Toronto General Hospital. Toronto, Ontario 2008
  “Postoperative acute lung injury.” (with McCluskey, S)

Stewart, D
• 2nd Conference of Migrant Health in Europe. Malmo, Sweden 2008
  “Postpartum depression in immigrant women”

• APA. Washington, District of Columbia 2008
  “Practical strategies for becoming a successful medical book author”

• King Saud University Workshop. Riyadh, Saudi Arabia 2009
  “What is women’s health?”
  “Academic physician-an analysis of gender differences in salivary cortisol”

• Latin American Psychiatric Association Meeting. Margarita Island, Venezuela 2009
  “Mental health indicators in Peru, Colombia and Canada”
  “International survey to examine policies and knowledge of physicians’ reporting of child sexual abuse and patient-patient sexual relationships”

• American Psychiatric Association Annual Meeting. San Francisco, California 2009
  “International survey to examine policies and knowledge of physicians’ reporting of child sexual abuse and patient-patient sexual relationships”
  “Gender equity health measurement in 3 countries”

• Global Health Conference, University of Toronto. Toronto, Ontario 2009
  “Using health indicators to influence government policy”

• World Psychiatric Association. Florence, Italy 2009
  “Trafficking of women policies and prevention”
  “Gender aspects of physician stress”
  “Perimenopause and mood”

• Institute for Gender Studies. Tokyo, Japan 2009
  “Developing a women’s health program”

• Ochanomizu High School and University of Tokyo. Tokyo, Japan 2009
  “Choosing a career in science”

• National Women’s Education Centre. Tokyo, Japan 2009
  “Accountability of measurement of women’s health”

• Ministry of Education Science and Technology. Tokyo, Japan 2009
  “Challenges and policies to recruiting and retaining women in science”

• WiSET Lecture, University of Tokyo. 2009
  “Health indicators and their uses”

• Women’s Health Day, University of Kyoto. 2009
  “Women’s health in Canada”

• The First Spanish and Latin American Women’s Health Conference. Madrid, Spain 2008
  “A comparison of mental and physical health indicators across countries”
• World Psychiatric Association Triennial Meeting, Prague, Czech Republic 2008
  "New consensus guidelines on psychotropic drugs in pregnancy"
  "Mental health indicators: international comparisons"
  "An International survey of reporting policies on child sexual abuse and physician-patient sexual abuse"
  "Gender differences in physician stress"

• Peruvian Psychiatric Association Annual Meeting, Lima, Peru 2006
  "Mental health indicators in 3 Countries in the Americas: Peru, Colombia and Canada"

Stewart, T.
• American Thoracic Society International Conference, San Diego, California 2009
  "ALI and ARDS"
  "Mechanical ventilation"

• Australian Centre for Clinician Leadership, Queensland, Australia 2009
  "Time for clinician's leadership"
  "Strategic team thinking"
  "Concept to completion implementing strategy"
  "Leadership essentials"

• Physician Leadership Program, Department of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario 2008
  "Physician leaders – Experience from the trenches" (Panel member)

Tarshis, Jordan
  "Electronic record keeping: Friend or foe?"

• 9th Annual Tremblant Perioperative Medicine Conference, Mont-Tremblant, Quebec 2009
  "Automated information systems"

• Department of Anesthesia Rounds, Trillium Hospital, Mississauga, Ontario 2009
  "PCEA for labour analgesia"

• Workshop at CAS Annual Meeting, Vancouver, British Columbia 2009
  "Debriefing in the real world" (with Naik V, Tarshis J, Chandar D, Friedman Z)

Taylor, Katherine
• Hospital-wide Resuscitation course (Presenter), The Hospital for Sick Children, Toronto, Ontario 2008

• Anesthesia Residents, The Hospital for Sick Children/University of Toronto, Toronto, Ontario 2008
  "Laparoscopy and fontan"

• Difficult Airways PICU Workshop, Intensive Care Unit Fellows, The Hospital for Sick Children, Toronto, Ontario 2008
  "The difficult airway"
  "Airways in trauma"
  "Adjuvants to difficult airways"

• Lecture to the Cardiac Anesthesia Educational Program for rotating Fellows, The Hospital for Sick Children, Toronto, Ontario 2008
  "Anesthesia fellows cardiac monitoring and complications"

• Anesthesia Residents and Fellows, The Hospital for Sick Children, Toronto, Ontario 2008
  "Neonatal airways"
  "Aortic coarctation"
  "Fontan and HLHS"

• Pediatric World Congress for Cardiology and Cardiac Surgery, Cairns, Australia 2008
  "Physiology and cardiac output monitoring. A comparison with MRI"

Tumber, P.
• Sunnybrook Health Sciences Centre, Toronto, Ontario 2008
  "Ultrasound in pain medicine masterclasses" (Workshop Leader)

• Mount Sinai Hospital, Obstetricians and Gynecologists Dinner Lecture, Toronto, Ontario 2008
  "Chronic pelvic pain Treatment options"

• Canadian Pain Society Interventional Special Interest Group and UHN Department of Anesthesia, Toronto Western Hospital, Toronto, Ontario 2008
  "Ultrasound for pain medicine workshop" (with workshop Co-Leader Narouze, S)

• UHN Department of Pharmacy Rounds, Princess Margaret Hospital, Toronto, Ontario 2009
  "Pain management strategies: Pharmacology"

• Canadian Pain Society Chronic Pain Refresher Course, Toronto, Ontario 2009
  "Basics for interventional procedures"

• Pain Management Conference, Grand River Hospital, Cambridge, Ontario 2009
  "Acute on chronic pain: Principles of management"

• Canadian Interventional Pain Course, Montreal, Quebec 2009
  "Sacroiliac joint and caudal epidural steroids" (Workshop Leader with Dr. A. Aviles)

• Pain Management Conference, St. Joseph's Hospital, Toronto, Ontario 2009
  "Multimodal analgesia – Practical aspects"

• Canadian Pain Society Interventional Special Interest Group and UHN Department of Anesthesia, Toronto Western Hospital, Toronto, Ontario 2008
  "Ultrasound for pain medicine workshop" (Workshop co-leader with Dr. Peng, P. Finlayson, R)

Vegas, A.
• Toronto General Hospital, TEE Symposium, Toronto, Ontario 2008
  "Mitrai valve pathology and 3D TEE"

• Society of Cardiovascular Anesthesia Annual Meeting, San Antonio, Texas 2009
  "Advanced TEE workshop: Aortic valve sparing root surgery"

• Sunnybrook 2009 Three Dimensional Transesophageal Echocardiography Symposium, Toronto, Ontario 2008
  "Mitraie valve pathology and 3D TEE"

• Echocardiography Rounds Southlake Hospital, Newmarket, Ontario 2009
  "The role of intraoperative 3D Transesophageal Echocardiography"
Venkatraghavan, L
• Toronto Anesthesia Practice. Toronto, Ontario 2008
  "Use of ultrasound will be a standard of practice within 5 years" (Debate)
• ASA annual meeting, Orlando, Florida 2008
  "Basic fiberoptic workshop" (Moderator)
• Toronto Anesthesia symposium. Toronto, Ontario 2009
  "Basic fiberoptic workshop" (Moderator)

Wells, G
• Faculty Seminar, Faculty of Physical Education and Health. Toronto, Ontario 2008
  "Exercise medicine"
• Physiology and Experimental Medicine Research Seminar, The Hospital for Sick Children. Toronto, Ontario 2008
  "Exercise medicine"
• Canadian Cardiovascular Congress Workshop. Toronto, Ontario 2008
  "Preventing sudden cardiac arrest in the young: ECG screening strategies for Canadian populations" (Presented with Hamilton R)
• The Ontario Medical Association Annual Conference. Toronto, Ontario 2008
  "Physiological correlates of golf performance"

Wijeyusundera, D
• McMaster University Anesthesia Rounds, McMaster University. Hamilton, Ontario 2008
  "Taking the big-picture perspective: Using population-based data to examine anesthesia care in Ontario"
• University of Ottawa Anesthesia Rounds, University of Ottawa. Ottawa, Ontario 2008
  "Taking the big-picture perspective: Using population-based data to examine anesthesia care in Ontario"
• Randomized Controlled Trials Methodology Rounds, St. Michael's Hospital. Toronto, Ontario 2009
  "Viewing contemporary randomized controlled trials from a Bayesian perspective"
• Cardiology Academic Rounds, Division of Cardiology, University Health Network. Toronto, Ontario 2009
  "Cardiac complications of major non-cardiac surgery: an anesthesiologist's perspective"

McGill University Health Centre. Montreal, Quebec 2009
• "What's new in difficult airway management?"
• Centre Hospitalier de l'Université de Montréal (CHUM), Hospital Notre-Dame Hospital. Montreal, Quebec 2009
  "What's new in difficult airway management?"
  "Perioperative cardiac risk reduction: Is beta-blocker the answer?"
• Ontario Thoracic Society Annual Conference. Toronto, Ontario 2009
  "Difficult airway workshop"
• American Society of Anesthesiologists Annual Meeting. Orlando, Florida 2008
  "Basic adult fiberoptic laryngoscopy"
• The Singapore Society of Anaesthesiologists's Meeting. Singapore 2008
  "Perioperative cardiac risk reduction: Is beta blocker the answer?"
• Tan Tock Seng Hospital. Singapore 2008
  "Difficult airway management"
• The Society of Anaesthetist of Hong Kong Scientific Meeting. Hong Kong, China 2008
  "Perioperative cardiac risk reduction: Is beta blocker the answer?"
• West China Second University Hospital. Sichuan University, Chengdu, China 2008
  "Perioperative cardiac risk reduction: Cooperative approach between internists and anesthesiologists"
  "Difficult airway management"
• Luzhou Peoples' Hospital. Luzhou, China 2008
  "Recent advances in preoperative evaluation and management"
• Guilin County Hospital. Sichuan, China 2008
  "Recent advances in preoperative evaluation and management"

Yee, D
• Making a Mark – Senior Residents' Review Program. Scarborough, Ontario 2009
  "Complications of anesthesia"

You-Ten, E
• Anesthesia Research-in-Progress Seminar Series. University of Toronto, Department of Anesthesia. Toronto, Ontario 2009
  "Impact of technical skills on non technical skills in anesthesia crisis management"
PEER-REVIEWED GRANTS

**Angle, P**  
*RA Gordon Patient Safety Award, Canadian Anesthesiologists’ Society*  
“Multi-centered Randomized controlled trial examining the effect of small vs. large Tuohy-type epidural needles on the incidence and severity of post dural puncture headache”  
$40,000  
Principal Investigator  
Co-investigators: Halpern SH, Kronberg J, Gawel M, Kiss A

**Canadian Pain Society**  
“Development of a teaching video – Techniques used for successful placement of small epidural catheters and needles”  
$1,250  
Principal Investigator

**Baker, AJ**  
*U. S. Department of Health and Human Services Public Health Services*  
“From bench to bedside to curbside”  
$238,646/year  
Principal Investigator: Slutsky AS  

**Balki, M**  
*MSSH-AMH Phase III Innovation Fund*  
“Assessment of critical skills of practicing anesthesiologists with high-fidelity obstetric anesthesia simulation”  
$75,957  
Principal Investigator  
Co-Investigators: Wax R, Carvalho J and Windrim R

**Beattie, S**  
*Heart and Stroke Foundation of Canada*  
“Nitrous Oxide anesthesia and cardiac morbidity after major surgery: A randomized controlled trial (ENIGMA II)”  
$160,000  
Canadian Principal Investigator  
Global PI: Myles, P

**MSSH-UHN Academic Medical Organization Innovation Funds**  
“Creating a comprehensive electronic perioperative information management system by extending the scope of innovative anesthesia preoperative assessment instrument”  
$196,021  
Principal Investigator

**MSSH-UHN Academic Medical Organization Innovation Funds**  
“A pilot study to improve the prediction of perioperative cardiac complications in noncardiac surgery – role of non-invasive computer tomography coronary angiogram using the novel 320-row multidetector computer tomography”  
$181,812  
Principal Investigator  
Co-Investigator: You-Ten E, Paul M

**National Research Council (NRC); Industrial Research Assistance Program (IRAP)**  
“To formulate an automated prognostic indication tool based on preoperative and intra operative data”  
$300,000  
Principal Investigator

**Health Technology Exchange (HTX); Ontario Ministry of Industry**  
“Validation and safety and efficacy of an electronic pre-op assessment system at University Health Network”  
$125,000  
Principal Investigator

**Heart and Stroke Foundation of Ontario**  
“EPIC Study. Addition of clonidine to chronic B-blockers reduces postoperative cardiac morbidity”  
$169,928  
Principal Investigator: Wijeysundera DN  
Co-Investigators: Beattie S, Choi PT, Badner NH, Delgado D, Rubin BB

**Campbell, F**  
*CIHR Team Grant Program*  
“CIHR team in children’s pain”  
$4,054,611  
Principal Investigator: Stevens B  

**CIHR Operating Grant**  
“Translating research on pain in children (TROPIC) study”  
$1,379,952  
Principal Investigator: Stevens B  

**Chan, V**  
*Physicians Services Incorporated Foundation*  
“Validating the efficacy of a task specific checklist versus a global rating scale in evaluating the proficiency of ultrasound guided supraventricular nerve blocks in operators at various levels of training”  
$19,000  
Co-Principal Investigator  
Principal Investigator: Hayter M

**Anesthesia Patient Safety Foundation/American Society of Anesthesiologists President’s Endowed Research**  
“Gastric ultrasonography: A non-invasive tool to determine gastric volume. Development of a quantitative model”  
$24,068 USD  
Principal Investigator: Perlas A
Chung, F
The Physicians' Services Incorporated Foundation
"The impact of anesthesia and surgery on apnea hypopnea and oxygen saturation in patients with obstructive sleep apnea, and its relation to perioperative adverse events"
$82,000
Principal Investigator
Co-Investigator: Shapiro C
Respiricon Foundation
"A prospective matched case control observation study on postop oxygen desaturation among the patients with diagnosed OSA and the patients identified as high risk of OSA by questionnaire"
$86,000
Principal Investigator
Resmed Foundation
"A prospective matched case control observation study on postop oxygen desaturation among the patients with diagnosed OSA and the patients identified as high risk of OSA by questionnaire"
$76,000
Principal Investigator
Cox, P
Canadian Institutes of Health Research
"Optimization of exogenous lung surfactant"
$1,031,280
Principal Investigator: Neuman W
Co-Investigator: Cox P
Friedman, Z
Anesthesia Patient Safety Foundation - American Society of Anesthesiologists
"Evaluation of an anatomically guided, logically formulated airway measure to predict difficult intubations"
$45,730
Principal Investigator
Co-Investigators: Rucker J, Cole D
Physicians Services Incorporated Foundation
"Acceleration of recovery from general anesthesia - Efficacy of isocapnic hyperoxia in obese patients undergoing isoflurane anesthesia"
$28,500
Principal Investigator: Katznelson R
Co-Investigators: Fisher, J Friedman Z,
Royal College of Physicians and Surgeons of Canada - Medical Education Research Grant
"The Imperial College Surgical Assessment Device (ICSAD) for the assessment of technical skill in epidurals for labour analgesia: The effect of sleep deprivation"
$18,050
Principal Investigator: Hyayer M
Co-Investigators: Bould D, Friedman Z
Development Fund for Innovation in Education, University of Toronto
"Impact of high-fidelity patient simulator-based education on the acquisition of non-technical skills during the management of a life threatening airway crisis"
$9,480
Principal Investigator: Eric You-Ten E
Co-Investigators: Nak V, Friedman Z
Gagliese, L
Canadian Institutes of Health Research - Operating Grant
"A prospective study of psychosocial distress and palliative care in patients with hematologic malignancies"
$644,687
Co-Principal Investigators: Rodin G, Zimmerman C.
Co-Investigators: Gagliese L, Minden M, Brandwein J, Schimmer A, Jones J
Canadian Breast Cancer Research Alliance - Operating Grant
"Age-related patterns in pain following breast cancer surgery"
$747,485
Principal Investigator
Co-Investigators: Koren G, Chan V, Easson A, Rodin G, Li M
Canadian Institutes of Health Research - Operating Grant
"The quality of death in metastatic cancer and its relationship to antecedent factors and primary caregiver morbidity"
$509,303
Principal Investigator: Rodin G
Co-Investigators: Gagliese L, Hales S, Zimmermann SC.
Canadian Arthritis Network - Discovery Advancement Project Program
"The nerve of osteoarthritis pain"
$49,709
Principal Investigator: Hawker G
Co-Investigators: Gagliese L, Hochman J, Davis A.
Hare, GMT
The Physicians' Services Incorporated Foundation
"Mechanisms by which beta-1 adrenergic blockade increases mortality following acute hemodilution in rats"
$161,000
Principal Investigator
The Society of Cardiovascular Anesthesiologists
"The threshold hematocrit for cerebral hypoxia is maintained by protective cardiovascular mechanisms: The role for neuronal nitric oxide synthase (nNOS).
$40,000 US
Principal Investigator
Jedad, A
Canadian Institutes of Health Research
"Improving access to clinical and community resources for multicultural mental health care"
$99,995
Principal Investigators: Kirmayer LJ, Lemire FL, McKenzie KJ, McKnight C
Social Sciences and Humanities Research Council of Canada
“Sense-making and credibility of health information on the social web: A multi-method study tagging and tag clouds”
$29,100
Co-Investigators: Jadad AR, Hockema S, O’Grady L, et al

Canadian Institutes of Health Research
“Health applications of cell signaling in mucosal inflammation and pain”
$8,488,211
Principal Investigators: Ellen RP, McCulloch CAG
Co-Investigators: Brumell JH, Cvilikovitch DG, Davis KD, Finlay B, Fish EN, Glogauer M, Jadad AR, Jones NL, Maksym GN, Manolios MF, Overall CM, Philpott DJ, Santerre P, Sessle BJ, Sherman PM, Vergnolle N

Canadian Institutes of Health Research
“CIHR Centre in HIV prevention social research”
$916,667

Canadian Institutes of Health Research
“End-user support in the implementation of Electronic Health Records in primary care: A case study of early adopters”
$70,289
Principal Investigator: Shachak A
Co-Investigators: Barnsley J, Jadad AR, Lemieux-Charles L, Tu K

Interprofessional Care/Education Fund at Health Force Ontario
“IMPACT (Interprofessional Model of Practice for Aging and Complex Treatments)”
$500,000
Co-Investigators: Jadad AR, Nickel L et al

Ministry of Health Promotion, Government of Ontario
“Youth leadership for the transformation of agri-food systems and a legacy of good health”
$200,000
Co-Investigators: Jadad AR, Norman C, McLoughlin R et al

Canadian Breast Cancer Foundation
“Tell me about breast cancer”
$20,000
Co-Investigators: Jadad AR, Cole E, Norman C, Bender J, O’Grady L

Canadian Institutes of Health Research
“Health care, technology and place: A strategic training initiative”
$1,950,000
Principal Investigator: Coyle PC

Canadian Institutes of Health Research
“CIHR strategic training program in the social aetiology of mental illness”
$485,825
Principal Investigators: McKenzie KJ, Noh S

Canadian Institutes of Health Research
“Canadian program of research on ethics in a pandemic (CanPREP): Whose risks, whose duties, what priorities?”
$1,499,775
Principal Investigator: Upshur REG

Canadian Institutes of Health Research
“Ethics and pandemic planning: Engaging the voices of the public”
$150,000
Principal Investigator: Upshur REG

Canadian Institutes of Health Research
“An integrated training program in health and social science research to improve the health of marginalized populations”
$1,466,417

Karkou, K
Heart and Stroke Foundation of Canada
“Advance targeted transfusion in anemic cardiac surgical patients for kidney protection (ATTACK): A proof of concept pilot study”
$98,102
Principal Investigator
Co-Investigators: Chan C, Crowther M, Wijeysundera D, Wong P-Y, Yau T

Canadian Anesthesiologists Society / Novo Nordisk Canada Research Award in Perioperative Hemorrhage, Hemostasis, and/or Transfusion
“Efficacy of autologous predonation of blood: A double-blinded, randomized controlled clinical trial”
$40,000
Principal Investigator

Bristol-Myers Squibb Canada/CAS Career Scientist Award
“Improving hemostasis management in cardiac surgery”
$270,000
Principal Investigator

Karsi, J
MSH-UHN AMO Phase III Innovation Fund
“The use of volatile anesthesia after cardiac surgery: A comparison with a standard intravenous anesthesia”
$189,733
Principal Investigator: Wasowicz M
Co-Investigators: Karsi J, Djaiani G, Stewart T, Yau T
Katz, J
NSERC - Collaborative Health Research Projects
“Novel tools to evaluate somatosensory processing in people with pain after spinal cord injury”
$296,386
Principal Investigator: Hunter J
Co-Investigators: Dostovsky JO, Katz JD, Popovic MR

Canadian Institutes of Health Research
“Mentoring and strength in impoverished young men”
$100,000
Principal Investigator: Ritvo PG

Physicians’ Services Incorporated Foundation
“Chronic pain and fractures after spinal cord injury (SCI) - impact on cost of care and quality of life”
$162,000
Principal Investigator: Craven BC

Pfizer Neuropathic Pain Award Competition, Pfizer Canada
“The short and long term effects of perioperative pregabalin use on functional rehabilitation, pain outcomes and anxiety following total hip arthroplasty: A randomized, double-blind, placebo-controlled trial”
$143,600
Principal Investigator: Clarke H
Co-investigators: Katz J, Kennedy D, McCartney CJLM, Gollih J, Kay J

American Association for Hand Surgery
“Biomedical and psychosocial factors associated with pain and disability after peripheral nerve injury”
$3,500
Principal Investigator: Novak C
Co-Investigator

Physicians Services Incorporated Foundation
“Does optimal control of chronic and acute pain predict improved function after total hip arthroplasty?”
$104,000
Principal Investigator: McCartney CJLM
Co-investigators: Katz J, Carmichael N, Clarke H, Kennedy D

Canadian Institutes of Health Research - Operating Grant
$397,450
Principal Investigator: Taddio A
Co-Investigators: Katz JD, Koren G, Shah V, Stephens D

Canadian Institutes of Health Research - Canada Research Chairs-Tier I
“CRC in health psychology at York University”
$1,400,000
Principal Investigator

Canadian Institutes of Health Research
“Sexual dysfunction and adaptation in couples affected by prostate cancer surgery: Steps towards a biopsychosocial model of treatment”
$119,049
Principal Investigator: Matthew AG

Canadian Institutes of Health Research
“Pain research from molecules to community – collaborative national training program”
$2176,727
Principal Investigator: Saltar MW

Katznelson, R
MSH-UHN ANO Phase III Innovation Fund
“The use of volatile anesthesia after cardiac surgery: A comparison with a standard intravenous anesthesia”
$189,733
Principal Investigator: Wasowicz M
Co-investigators: Katznelson R, Djalali G, Karsi J, Stewart T, Yau T

Physicians Services Incorporated Foundation
“Acceleration of Recovery from General Anesthesia: Efficacy of Isocapnic Hyperpnoea in Obese Patients Undergoing Isoflurane Anesthesia”
$28,500
Principal Investigator
Co-Investigators: Fisher J, Friedman Z

Kavanagh, BP
Canadian Institutes of Health Research Operating Grant - Renewal
“Preclinical assessment of therapeutic hypercapnia”
$535,000
Sole Applicant

Canadian Institutes of Health Research - Group Grant
“Lung development”
$1,260,000
Co-applicant
Principal Investigator: Tanswell AK

Canadian Institutes of Health Research - Interim Operating Grant
“Ventilator-induced lung injury: Linking gene activation, physiology and outcome”
$100,000
Principal Applicant
Co-applicant with Post M

Canadian Institutes of Health Research - Operating Grant
“Therapeutic potential of hepxolins analogues”
$620,000
Co-Principal Applicant with Post M
Canadian Institutes of Health Research - Operating Grant
"Ventilator-induced lung injury: Linking gene activation, physiology and outcome"
$643,000
Principal Applicant
Co-applicant: Post M

Mazer, CD
AO Research Fund
"Sternal closure stability using the sternal fixation system"
$52,098
Principal Investigator: Mahoney J
Co-investigators: Mazer CD, Fawzy H, Errett L

McCartney, CJLM
Physicians Services Incorporated Foundation
"Effects of ultrasound versus nerve stimulator guidance on the minimum effective anesthetic volume required for interscalene brachial plexus block"
$20,000
Principal Investigator: Shastri U
Co-Investigator: McCartney C

Physicians Services Incorporated Foundation
"Comparing the postoperative functional recovery and analgesic efficacy of a single shot sciatic nerve block versus posterior capsule infiltration of local anesthetic for total knee arthroplasty"
$50,000
Principal Investigator: Safa B
Co-Investigator: McCartney C

Physicians Services Incorporated Foundation
"Does optimal control of chronic and acute pain predict improved function after total hip arthroplasty?"
$304,000
Principal Investigator: McCartney CJLM
Co-Investigators: Carmichael N, Clarke H, Kennedy D

McGrath, P
Canadian Institutes of Health Research - New Emerging Team Initiative
"Gender differences in child development: Vulnerability to chronic pain"
$1,500,000

Meineri, M
Instructional Technology Courseware Development Fund
"Development of a simulation of weaning patients from cardiopulmonary bypass"
$25,000
Principal Investigator

Network of Excellence in Simulation for Clinical Teaching and Learning, supported by the Ministry of Health and Long Term Care of Ontario
"Virtual TEE: An online simulation of a TEE exam"
$49,733
Principal Investigator

Morgan, P
Network of Excellence in Simulation for Clinical Teaching and Learning
"Faculty development for simulation for clinical teaching and learning"
$63,990
Co-investigator
Principal investigator: Leslie K

Canadian Patient Safety Institute (CPSI)
"Determination of the psychometric properties of a behavioural marking system for obstetrical team training using high-fidelity simulation"
$119,340
Co-Principal investigator with Tregunno D.
Co-Investigators: Pettini R, Milne K, Zwarenstein M, Tarshis, J

Alternate Funding Plan Innovation Fund
"Patient safety: Introduction of the surgical safety checklist and patient outcome assessment in an academic ambulatory hospital"
$30,000
Principal Investigator
Co-Investigators: Kronberg J, Semple J

Orser, B
Canada Research Chair - Tier 2, Renewal
"Anesthetic drugs: From molecular mechanisms to patient safety"
$1,000,000
Principal Investigator

Canadian Institutes of Health Research
"Tonic GABAergic regulation of memory and plasticity"
$826,305
Principal Investigator

Canadian Institutes of Health Research
"The role of GABAA receptors in anesthetic-induced impairment of memory and consciousness"
$595,895
Principal Investigator

Canadian Institutes of Health Research
"Team talk II: A multi-institutional evaluation of a checklist intervention to structure communication and promote patient safety in the operating room"
$436,651
Principal investigators: Lingard LA, Regehr G
Co-Investigators: Baker GR, Bohnen JMA, Doran DM, Espin S, Orser BA, Reznick RK, Rotstein L, Tan J

Parlas, A
Anesthesia Patient Safety Foundation/American Society of Anesthesiologists President's Endowed Research Award
"Gastric ultrasonography: A non-invasive tool to determine gastric volume. Development of a quantitative model"
$24,068 USD
Principal Investigator
Co-Investigator: Chan V
Doctor's Company Foundation Ann S. Lofsky, MD Research Award
“Gastric ultrasonography: A non-invasive tool to determine gastric volume. Development of a quantitative model”
$5,000 USD
Principal Investigator

Rigamonti, A
Physicians Services Incorporated Foundation
“Effect of bilateral scalp local anesthesia on post-operative pain in patients undergoing brain surgery and general anesthesia (randomized, placebo-controlled, triple blinded, parallel-group clinical trial)’
$120,000
Principal Investigator

Safa, B
Physicians Services Incorporated Foundation
“Comparing the postoperative functional recovery and analgesic efficacy of a single shot sciatic nerve block versus posterior capsule infiltration of local anesthetic for total knee arthroplasty”
$50,000
Principal Investigator
Co-Investigator: McCartney C

Siddiqui, N
MSH-UHN-AMO Phase III Innovation Fund
“Responding to ASRA challenge – Should gowing be the standard of practice for epidural Anesthesia. A randomized control trial”
$99,345
Principal Investigator
Co-Investigators: Friedman Z, McGeer A, Davies S

Stewart, D
Canadian Institutes of Health Research
“Comparing paper versus electronic transmission of cardiac rehabilitation summaries to primary care physicians: A multi-site multi-method study of information flow and content (the CR2DoC study)”
$514,298
Principal Investigator: Grace, SL
Co-Investigators: Arthur HM, Prior PL, Reid RD, Stewart DE, Suskin NG

Canadian Institutes of Health Research
“Neurochemical aspects of depression in women: Monoamine Oxidase A in the postpartum period”
$344,358
Principal Investigator: Meyer JH
Co-Investigators: Houle S, Stewart DE, Wilson AA

International Development Research Centre
“Political violence, natural disasters and mental health outcomes: Developing innovative health policies and interventions”
$1,599,542
Co-Principal Investigator with Pedersen D, Lopez V, Sharma B, Piazza M, Chamindra Weerackody LP, Kirmayer LJ, Rousseau C, Young A, Guzder J

Ontario Ministry of Health and Long Term Care
“Ontario women’s health report card: improving health and promoting equity for the women of Ontario AKA Project for an Ontario Women’s Health Evidence-Based Report Card (POWER)”
$4,289,300
Co-Investigator
Principal Investigator: Bierman AS

Canadian Institutes of Health Research
“Measuring and understanding gender equity in access to care”
$305,406
Principal Investigator: Brown AD

Canadian Institutes of Health Research and Heart and Stroke Foundation of Canada
“Cardiovascular secondary prevention for vulnerable populations: An interdisciplinary approach to improving access to services and outcomes. Reducing health disparities and promoting equity for vulnerable populations - Interdisciplinary capacity enhancement grants CIHR IGH, ICRI and HSFC”
$704,792
Co-Principal Investigator with Grace SL

Canadian Institutes of Health Research
“The childbirth health and related service needs of newcomers (CHARSNN)
$2,079,618
Principal Investigator: Gagnon AJ
Co-Investigators: Dennis C-LE, Dougherty G, Palmer BC, Stewart DE, Wahoush O

Canadian Institutes of Health Research
“Survival and resistance strategies to globalization of women in prostitution”
$98,596
Principal Investigator: Pedersen D
Co-Investigators: Escobar NE, Piazza MJ, Robillard C, Stewart DE

Stewart, T
Canadian Institutes of Health Research
“Knowledge synthesis of implementation strategies for critically ill patients (The KRITICAL Study)”
$98,672
Principal Investigators: Garland A, Lawless B, Muscedere J, Sinuff T
Co-Investigators: Adhikari NKJ, Cooke DJ, Currie J, Dodek PM, Heyland DK, Light BR, Rubenfeld G, Scales D, Stewart TE

Canadian Institutes of Health Research
“The OSCILLation for ARDS Treated Early (OSCILLATE) Pilot Study”
$1,448,317
Principal Investigators: Ferguson N, Meade M
Wasowicz, M
**MSH-UHN AMO Phase III Innovation Fund**
"The use of volatile anesthesia after cardiac surgery: A comparison with a standard intravenous anesthesia"
Principal investigator.
Co-investigators: Djaiani G, Karski J, Stewart T, Yau T.
$189,733

**Network of Excellence in Simulation for Clinical Teaching and Learning, supported by the Ministry of Health and Long Term Care of Ontario**
"Virtual weaning: An online simulation of weaning from cardiopulmonary bypass"
Principal investigator
$49,733

Wijeyesundera, DN
**Heart and Stroke Foundation of Ontario**
"The EPIC (Evaluating Perioperative Ischemia Reduction by Clonidine) Study: A randomized, triple-blinded trial of combining clonidine with chronic beta-blockade in intermediate-to-high risk non-cardiac surgery"
$169,128
Principal investigator
Co-investigators: Beattie S, Choi PT, Badner NH, Delgado D, Rubin BB

**Heart and Stroke Foundation of Canada**
"Advance targeted transfusion in anemic cardiac surgical patients for kidney protection (ATTACK): A proof of concept pilot study"
$98,102
Principal investigator: Karkouti K
Co-investigators: Chan C, Crowther M, Wijeyesundera D, Wong P-Y, Yau T

Wong, J
**Physicians Services Incorporated Foundation**
"Efficacy of intraoperative topical application of tranexamic acid in reducing perioperative bleeding in total knee arthroplasty"
$58,250
Principal investigator

Zhang, H
**Canadian Institutes of Health Research Operating Grant**
"LPS internalization and ICAM-1 signaling in the pathogenesis of sepsis"
$106,120/year
Principal investigator

**Canadian Institutes of Health Operating Grant**
"Human neutrophil peptides in lung inflammation"
$110,725/year
Principal investigator

**Canadian Institutes of Health New Investigator Award**
"Human neutrophil peptides in lung inflammation"
$55,000/year
Principal investigator

**Ministry of Research and Innovation Ontario Premier’s Research Excellence Award**
"Targeting ICAM-1/LFA-1 interaction in reducing sepsis-induced lung injury"
$31,800/year
Principal investigator

**Ministry of Foreign Affairs - Going Global Innovation Grant**
Research Collaboration in Critical Care Medicine
$17,868
Principal investigator
NON-PEER REVIEWED GRANTS

Chung, F
Schering Plough
“A randomized double-blind active and placebo-controlled study of single dose oral Rolapitant monotherapy for the prevention of postoperative nausea and vomiting”
$150,000
Principal investigator

Djaliani, G
Cubist Pharmaceuticals Inc
“CONSERV TM-1 (Clinical Outcomes and Safety Trial to Investigate Ecallantide’s Effect on Reducing Surgical Blood Loss Volume) - A Phase 2 Randomized Placebo-controlled Dose-ranging Study in Subjects Exposed to Cardio-pulmonary Bypass During Primary Coronary Artery Bypass Graft Surgery”
Principal investigator
Co-investigators: Fedorko L, Katznelson R, Rao V, Karkouti K
$73,000

Karkouti, K
Novo-Nordisk
“Investigating the relationship between factor XII levels and blood loss in cardiac surgery. A multi-centre, prospective, observational study”
$182,000
Principal investigator

McCuskey, S
NovoNordisk Canada
“Predictors of blood loss in major spine surgery”
$27,500
Co-Principal investigator with Prabhu H

McCartney, CJLM
Pfizer
“The short and long term effects of perioperative pregabalin use on functional rehabilitation, pain outcomes and anxiety following total hip arthroplasty: A randomized, double-blind, placebo-controlled trial”
$145,000
Co-investigator with Clarke H, Kay J, Katz J, Kennedy D

Minkovich, L
Edwards LifeSciences
“Evaluation of the Perioperative Hemodynamic Changes during Orthotopic Liver Transplantation: A Prospective Observational Study”
$109,243
Principal investigator
Co-Investigators: Djaliani G, Granton J, Naughton F, and McCluskey S

Morgan, P
Canadian Patient Safety Institute
“Train-the-trainer curricula: Program managers and simulation technicians”
$15,000
Co-Investigator
Principal investigator; LeBlanc VR

Zhang, H
Eli Lilly
“Effects of extracellular pH modulation during hypoxia on cell death in human bronchial epithelial cells”
$30,000/year
Principal investigator