# Chair’s Introduction

## Who are we?
- Organizational Chart
- Administrative Team
- Departmental Committees
- Faculty Members
- Fellows and Residents
- Honours and Awards

## Clinical Practice
- Report from the Vice Chair, Clinical Practice
- Hospital Statistics

## Our Education Mission:
- Report from the Vice Chair, Education
- Undergraduate Education Program
- Postgraduate Education Program
- The Clinician Scientist Stream
- Clinical Fellowship Research Seminar Series
- Continuing Education

## Our Research Programs:
- Report from the Vice Chair, Research
- 29th Annual Shields Research Day

## Publications
- Peer-Reviewed
- Non Peer-Reviewed
- Chapters in Books

## Invited Lectures

## Grants
- Peer-Reviewed
- Non Peer-Reviewed
I am delighted to introduce the Annual Report, Department of Anesthesia, for the academic year 2007-2008. The Annual Report is in part about highlights and in part also about the sheer volume of ongoing clinical and academic excellence to which all department members contribute on a daily basis.

There were several important highlights. In peer-reviewed research funding, our investigators were awarded grants from the Physician Services Incorporated Foundation, the Department of National Defense, Ontario Neurotrauma Foundation, Canadian Institutes of Health Research, Department of Health and Human Services, Canadian Anesthesiologists Society, National Research Council, Ontario Ministry of Industry, Heart and Stroke Foundation, American Society of Regional Anesthesia and Pain Medicine, Anesthesia Patient Safety Foundation, and the Society of Cardiovascular Anesthesiologists. Of particular note was the renewal by Dr. Beverley Orser of her Canadian Research Chair (Tier 2) in Mechanisms of Anesthesia, and Dr. Duminda Wijesundera receiving the Rick Gallop Award for the highest ranked Heart and Stroke Foundation operating grant.

Our stature in research among other University Departments of Anesthesia is articulated by Dr. Mazer (Vice Chair, Research) – it is nice to know that we are among the leaders in terms of research accomplishment, although we know in our hearts that we are capable of much more.

The Annual Shields Research Day 2008 was an outstanding success with multiple internal prizes for research and overall professional contribution being awarded. The Anesthesia Residency Program welcomed 20 new PGY-1 Residents with a steadily increasing standard as evidenced by the CaRMS ranking criteria. One of the jewels in the crown of the department, the Continuing Education Committee, continues to contribute to 16 continuing medical education – continuing professional development courses and programs that are the envy of departments world-wide.

Dr. Frances Chung was awarded the 2008 Department Research Award and several of our faculty won national and international recognition. Among them, Drs. Mrinalini Balki and Keyvan Karkouti (CAS Research Awards), graduate student Tenille Ragoonanan (Richard Knill National Research Competition), Dr. Fiona Campbell (Harold Merskey Award), Dr. Sharon Davies (Fred Fallis Award for On-line Continuing Education, University of Toronto), and Dr. Alejandro Hadad (Gold Medal for Lifelong Achievement, University of Cordoba, Columbia), in addition to our faculty winning a multitude of departmental and university awards.

2008 saw the commencement of the department’s strategic planning process, a lengthy consultative process that is currently in progress. In addition, we launched the new system of allocating academic funds through a two-year cycle of faculty merit awards. This was well-received by the overwhelming majority of faculty and sets the tone for the allocation of scarce university funds on the basis of merit and peer-reviewed competition in research, educational, and creative professional activity endeavours.

The Anesthesia Care Team concept has gone from strength to strength, taking its lead nationally from our University department, with our senior clinicians Drs. Gerald O’Leary (Vice-Chair, Clinical Practice), Claire Middleton and Sharon Davies working with the Michener Institute and the University of Toronto Faculty of Nursing to broaden the scope and impact of the Anesthesia Care Team in caring for peri-operative patients.

In addition to our academic and educational success, department members have made important administrative contributions in the affiliated teaching hospitals. Dr. Patricia Houston (Vice-Chair, Education) was appointed Vice-President, Education at St. Michael’s Hospital, where she is currently Acting Chief Medical Officer. Dr. Lawrence Roy has been appointed Interim Vice President, Medical Affairs at The Hospital for Sick Children. Dr. Henderson Lee took on the role as Program Director for Family Practice Anesthesia Group reporting jointly to the Residency Program Directors of Anesthesia and Family Practice. Dr. Doreen Yee was appointed Director of Fellowship and International Medical Graduate Programs, a new role which provides much support to individuals from affiliated hospitals.

Please read and enjoy this Annual Report, and recognize how fortunate we are to have such a productive and accomplished faculty who are so ably supported by excellent administrative staff in our hospital and university departments. As we turn our attention to the most pressing issue facing us for the next year -fundraising for academic chairs- the current report is a celebration of what we have done and a taste of what we are capable of doing.

Brian Kavanagh
Organizational Chart
As of June 2008
# DEPARTMENTAL COMMITTEES

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<tr>
<th>DEPARTMENTAL COMMITTEES</th>
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<th>Terms of Reference</th>
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<tr>
<td><strong>EXECUTIVE COMMITTEE</strong></td>
<td>B. Kavanagh (Chair), M. Crawford, G. Faclier, P. Houston, J. Kronberg, W. Kubasik (Secretary), D. Mazer, G. O’Leary</td>
<td>Makes operational and policy-related decisions in implementing Chair’s strategic directions including the financial, research, and academic-related issues of the department.</td>
</tr>
<tr>
<td><strong>DEPARTMENTAL COUNCIL</strong></td>
<td>B. Kavanagh (Chair), S. Beattie, S. Belo, I. Devito, G. Faclier, G. Fox, P. Houston, J. Kronberg, W. Kubasik (Secretary), M. Levine, D. Mazer, W. Middleton, E. Mosher, G. O’Leary, L. Roy, P. Slinger</td>
<td>Provides the Chair with advice on strategic issues; harmonizes goals and operations of the department with other UT institutions and affiliated hospitals.</td>
</tr>
<tr>
<td><strong>EDUCATION COUNCIL</strong></td>
<td>P. Houston (Chair), I. Devito, B. Kavanagh, H. Lee, M. Levine, P. Slinger, D. Yee</td>
<td>Coordinates activities of department’s education programs (undergraduate, graduate, post-graduate, and continuing medical education).</td>
</tr>
<tr>
<td><strong>DEPARTMENTAL APPOINTMENTS COMMITTEE (DAC)</strong></td>
<td>D. McKnight (Chair), R. Crago, S. Halpern, W. Kubasik (Secretary), B. Macpherson, M. O’Driscoll, J. Wasserman</td>
<td>Ensures consistent and appropriate appointment processes for the department; conducts performance reviews of full-time appointments in accordance with relevant faculty policies; reviews promotions to Assistant Professor level.</td>
</tr>
<tr>
<td><strong>PROMOTIONS COMMITTEE</strong></td>
<td>G. Fox (Chair), A. Baker, V. Chan, I. Devito, P. Houston, C. Karlsi, J. Katz, B. Kavanagh (ex-officio), W. Kubasik (Secretary), D. Mazer, C. McCarthey, P. Morgan, B. Orser, H. Zhang</td>
<td>Reviews faculty applications for senior promotions; provides recommendations to Chair on promotions.</td>
</tr>
<tr>
<td><strong>UNDERGRADUATE EDUCATION COMMITTEE</strong></td>
<td>I. Devito (Chair), D. Chandra, H. El-Beheiry, P. Houston, D. Irwin, G. Kannellakos, B. Kavanagh, K. Lin, P. Mark, I. Randall, J. Robertson, A. Sarmah, R. Sunder, M. van der Vyver</td>
<td>Promotes excellence in undergraduate education through all years of Medicine, specifically promoting excellence in teaching perioperative medicine (including preoperative evaluation skills; resuscitation; pain management; technical skills; team centered care). Develops and implements innovative teaching through simulation and web-based educational tools.</td>
</tr>
<tr>
<td><strong>POSTGRADUATE EDUCATION COMMITTEE</strong></td>
<td>M. Levine (Chair), I. Devito, H. Fischer, S. Halpern, P. Houston, B. Kavanagh, H. Lee, I. McGhee, D. Middleton, B. Morningstar, P. Murphy, V. Naik, E. Ng, D. Riegert, J. Wasserman</td>
<td>Develops and revises postgraduate academic program; evaluates residents, teachers and rotations; coordinates selection process for new residents; ensures program adherence to the Standards of Accreditation of the RCPSC; reviews residents in difficulty and makes recommendations to Program Director.</td>
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<tr>
<td><strong>CONTINUING MEDICAL EDUCATION</strong></td>
<td>P. Slinger (Chair), P. Angle, S. Davies, L. Eisen, P. Houston, B. Kavanagh, J. Kay, C. Knapp, C. Loffelmann, J. Tarshis, M. van der Vyver, L. Venkatrghavan, J. Wong</td>
<td>Develops, plans, implements and reviews various continuing education initiatives within the department including web-based learning.</td>
</tr>
<tr>
<td><strong>RESEARCH COMMITTEE</strong></td>
<td>D. Mazer (Chair), P. Angle, A. Baker, S. Beattie, M. Crawford, B. Kavanagh, A. Macarthur, P. Mak, D. McKnight, B. Orser, G. Petroz</td>
<td>Defines priorities, provides advice, and implements new initiatives that promote and support current and future research activities in the department; provides protocol review service and assistance for departmental faculty applying for grants; promotes linkages to foster departmental research activities.</td>
</tr>
<tr>
<td><strong>SHIELDS DAY PLANNING COMMITTEE</strong></td>
<td>G. Petroz (Chair), B. Kavanagh, W. Kubasik</td>
<td>Organizes the scientific program including theme, speakers, and overall program. Implements program and logistical details.</td>
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</table>
FACULTY MEMBERS

Professors Emeritus
Bevan, David Emeritus Professor

Professors
Baker, Andrew St. Michael’s Hospital
Bohn, Desmond The Hospital for Sick Children
Chan, Vincent University Health Network
Cooper, Richard University Health Network
Fisher, Joseph University Health Network
Halpern, Stephen Women's College Hospital
Jadad, Alejandro University Health Network
Kavanagh, Brian The Hospital for Sick Children
McGrath, Patricia The Hospital for Sick Children
Orser, Beverley Sunnybrook Health Sciences
Stewart, Donna University Health Network
Tweed, Arnold University Health Network

Associate Professors
Abrahamson, Simon St. Michael's Hospital
Brown, Stephen C The Hospital for Sick Children
Crago, Ronald R University Health Network
Djaiani, George University Health Network
Hare, Gregory St. Michael’s Hospital
Karkouti, Keyvan University Health Network
Kronberg, Jean Women's College Hospital
Macarthur, Alison Mount Sinai Hospital
McCartney, Colin Sunnybrook Health Sciences
Mullen, Brendan Mount Sinai Hospital
Naik, Viren St. Michael’s Hospital
O’Leary, Gerald University Health Network
Petroz, Guy The Hospital for Sick Children
Roy, Lawrence The Hospital for Sick Children
Wong, David University Health Network
Zhang, Haibo St. Michael's Hospital

Assistant Professors
Ananthanarayan, Chidambaram Mount Sinai Hospital
Avila, Arsenio Sunnybrook Health Sciences
Bahrey, Lisa University Health Network
Balki, Mrinalini Mount Sinai Hospital
Belo, Susan Sunnybrook Health Sciences
Berdock, Steven The Hospital for Sick Children
Bowry, Richard St. Michael’s Hospital
Braude, Bernard The Hospital for Sick Children
Brull, Richard University Health Network
Cassar-Demajo, Wilfred University Health Network
Chan, Herman, Sunnybrook Health Sciences
Chapman, Martin Sunnybrook Health Sciences
Chin, Ki-Jinn University Health Network
Cooke, Mary Ellen Mount Sinai Hospital

Duffin, James Emeritus Professor
Bissonnette, Bruno The Hospital for Sick Children
Byrick, Robert St. Michael's Hospital
Chung, Frances University Health Network
Cox, Peter The Hospital for Sick Children
Fox, Gordon Mount Sinai Hospital
Houston, Patricia St. Michael's Hospital
Katz, Joel University Health Network
Mazer, David St. Michael's Hospital
Morgan, Pamela Women’s College Hospital
Slinger, Peter University Health Network

Beattie, William Scott University Health Network
Carvalho, Jose Mount Sinai Hospital
Crawford, Mark The Hospital for Sick Children
Fedorko, Ludwik University Health Network
Jelenich, Sandra St. Michael's Hospital
Karski, Jacek University Health Network
Lu, Wei-Yang Sunnybrook Health Sciences
Manninen, Pirjo University Health Network
McKnight, David St. Michael's Hospital
Murphy, Patricia University Health Network
Levine, Mark The Hospital for Sick Children
Peng, Philip University Health Network
Rose, Keith Sunnybrook Health Sciences
Stoyka, William St. Michael's Hospital
Yao, Zhenhai University Health Network

Angle, Pamela Women’s College Hospital
Awad, Imad Sunnybrook Health Sciences
Baker, James St. Michael's Hospital
Barlow, Ross The Hospital for Sick Children
Bercovici, Mark Sunnybrook Health Sciences
Bertram, Susan Sunnybrook Health Sciences
Bradwell, John University Health Network
Brown, Stephen North York General
Campbell, Fiona The Hospital for Sick Children
Chan, Bok Man St. Michael's Hospital
Chandra, Deven St. Michael's Hospital
Chen, Robert St. Michael's Hospital
Chinnappa, Vinod Women’s College Hospital
Cooper, Andrew Sunnybrook Health Sciences
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Robertson, James The Hospital for Sick Children
Samahin, Ashmal Toronto East General Hospital
Sastry, Sunita University Health Network
Siddiqui, Naveed University Health Network
Sinclair, Lesley Sunnybrook Health Sciences
Solaric, Bojana University Health Network
Srinivas, Coimbatore University Health Network
Tait, Gordon University Health Network
Tarshis, Jordan Sunnybrook Health Sciences
Temenbein, Paul University Health Network
Tharmaratnam, Uma Mount Sinai Hospital
Tumber, Paul University Health Network
Urbankiewicz, Les Toronto East General Hospital
van Rensburg, Adriaan University Health Network
Venkat Raghavan, Lakshmikumar University Health Network
Wasowicz, Marcin University Health Network
Wells, Greg Toronto General Hospital
Wong, Jean University Health Network
Yee, Doreen Sunnybrook Health Sciences
Zaarour, Christian The Hospital for Sick Children

Safa, Behnam Sunnybrook Health Sciences
Sarma, Anita Sunnybrook Health Sciences
Shumka, David University Health Network
Snyman, Adam University Health Network
Smith, Terry Sunnybrook Health Sciences
Srebrnjak, Margaret Women's College Hospital
Szabo, Elod The Hospital for Sick Children
Tanner, Keith Sunnybrook Health Sciences
Taylor, Katherine The Hospital for Sick Children
Teresi, James Mount Sinai Hospital
Tousignant, Claude St. Michael's Hospital
Urbach, Gordon Mount Sinai Hospital
van der Vyver, Marthinus Women's College Hospital
Vegas, Annette University Health Network

Wassermann, Jeffrey St. Michael's Hospital
Wong, Gail The Hospital for Sick Children
Wong, Sophia Sunnybrook Health Sciences
You-Ten, Eric Mount Sinai Hospital

Lecturers

Barclay, Alasdair Mount Sinai Hospital
Choi, Mabel Sunnybrook Health Sciences
Davallou, Mojgan Women's College Hospital
Friedlander, Mark North York General Hospital
Ho, Alexander St. Michael's Hospital
Hong, Aaron St. Michael's Hospital
Hussain, Kamal Women's College Hospital
Jariani, Marjan University Health Network
Kanellakos, George University Health Network
Kashin, Brian North York General Hospital
Kealey, Alayne Sunnybrook Health Sciences
Ko, Raynald University Health Network
Kong, Jonathan Sunnybrook Health Sciences
Lam, Desmond Toronto East General Hospital
Loffelmann, Carol St. Michael's Hospital
Ma, Martin University Health Network
McHardy, Paul Sunnybrook Health Sciences
Palmgren, Elisabeth Toronto East General Hospital
Robison, Gordon Toronto East General Hospital
Sakotic, George St. Michael's Hospital
Seary, Richard Mount Sinai Hospital
Tamir, Diana University Health Network
Wijeysundera, Duminda University Health Network

Chochinov, Michelle Sunnybrook Health Sciences
Dattilo, Kathleen University Health Network
Dickson, Jeffrey St. Michael's Hospital
Gourlay, Douglas Mount Sinai Hospital
Ho, Peter Mount Sinai Hospital
Hsu, Vivienne Toronto East General Hospital
Irwin, Darryl Mount Sinai Hospital
Kamble, Vaibhav Toronto East General Hospital
Kapoor, Sunil Toronto East General Hospital
Kataoka, Mark St. Michael's Hospital
Kemp, Sheelagh The Hospital for Sick Children
Kong, Anna Toronto East General Hospital
Kulchyk, James Toronto East General Hospital
Lin, Ken St. Michael’s Hospital
Loke, Julian University Health Network
Mai, Ryan St. Michael’s Hospital
Mosher, Emily Toronto East General Hospital
Peliowski, Arie The Hospital for Sick Children
Rucker, Joshua Mount Sinai Hospital
Salman, Aliya Mount Sinai Hospital
Singh, Davindra St. Michael’s Hospital
Tibbet, Juliana Toronto East General Hospital
## ANESTHESIA FELLOWS

### The Hospital for Sick Children

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<thead>
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### Mount Sinai Hospital

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### St. Michael's Hospital

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### Sunnybrook Health Sciences Centre

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### UHN/Toronto General Hospital

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### RESIDENTS

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<tr>
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<td>Wong, Catherine</td>
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</table>
HONOURS AND AWARDS

The following University department awards were presented at the 29th Annual Shields Research Day, 2008:

- The Dr. John Desmond Award recognizes excellence in clinical teaching of undergraduate students: William Middleton (Assistant Professor, Toronto Western Hospital, University Health Network)

- The Dr. Gerald Edelist Award is awarded to a faculty member in recognition of excellence as a clinical teacher of residents in anesthesia: James Teresi (Assistant Professor, Mount Sinai Hospital)

- The Dr. David Fear Award is awarded for outstanding contributions to continuing medical education and continuing professional development in the Department of Anesthesia: Vincent Chan (Professor, Toronto Western Hospital, University Health Network)

- The UT Anesthesia Faculty Research Award is awarded in recognition of sustained contributions to research in anesthesia: Frances Chung (Professor, Toronto Western Hospital, University Health Network)

- The Dr. R.J. Byrick Award recognizes the best fellow’s research paper presented at the Annual Shields Research Day: Dylan Bould (Fellow, St. Michael’s 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: Tenille Ragoonanan (Graduate Student, St. Michael’s Hospital)

- The Dr. Hynek Rothbart Award for the best paper presented by a Resident at the Annual Shields Research Day: John Hanlon (Resident, PG-4)

- The Thomas Donald Hammell Memorial Award in Anesthesia, is awarded in recognition of outstanding contributions to the Residency Program, as chosen by other residents: Hance Clarke (Resident, PG-5)

- The UT Anesthesia Best Shields Day Poster Award: Ronit Lavi (Fellow, University Health Network, Toronto General Hospital)

- The Dr. Evelyn Bateman Award is awarded in recognition of excellence in anesthesia at the undergraduate level: Natasha Ruth Saunders (Undergraduate MD, Year 4)

We are also pleased to announce that members of the Department of Anesthesia, University of Toronto were the recipients of the following prestigious awards at the Canadian Anesthesiologists’ Society (CAS) meeting in Halifax, Nova Scotia:

- CAS Research Award: Mrinalini Balki (Assistant Professor, Mount Sinai Hospital)

- The Best Paper in Obstetric Anesthesia Award: Mrinalini Balki (Assistant Professor, Mount Sinai Hospital)

- CAS Research Award: Keyvan Karkouti (Associate Professor, University Health Network, Toronto General Hospital)

- CAS Medical Student Essay Contest Winner: Trevor Arnason (First Year Medical Student, University of Toronto)

- Richard Knill Research Competition Winner: Tenille Ragoonanan (Graduate Student, St. Michael’s Hospital)
The following awards were also received in 2007-2008:

**Fiona Campbell** (Assistant Professor, The Hospital for Sick Children)
- Harold Merskey Award. This award is presented annually for a significant contribution to the field of pain as demonstrated by the impact of original research published in ‘Pain Research and Management’ (Official Journal of the Canadian Pain Society), 2008

**Sharon Davies** (Assistant Professor, Mount Sinai Hospital)
- The Fred Fallis Award for On-line Continuing Education, Faculty of Medicine, University of Toronto.

**Marianne Graham** (Assistant Professor, Sunnybrook Health Sciences Centre)
- The Bob McKenzie Award for postgraduate teaching at Sunnybrook Health Sciences Centre, 2008

**Alejandro Jadad** (Professor, University Health Network, Toronto General Hospital)
- Fellow, Canadian Academy of Health Sciences, 2007
- One of the “10 Most Influential Hispanic Canadians”, selected by media and community leaders in Canada, 2007
- Bicentennial Medal, Antonio de la Torre y Miranda, City of Monteria (Dr. Jadad’s home town), equivalent to the keys of the city, 2008
- Great Cross Medal, Cordoba, Colombia, 2008
- Gold Medal for Lifelong Achievement, University of Cordoba, Colombia, 2008
- Gold Medal for Lifelong Achievement, University of Sinu, Colombia, 2008
- Order of the Congress, Government of Colombia, 2008

**Claude Laflamme** (Assistant Professor, Sunnybrook Health Sciences Center)
- Patient Safety Scholar, Sunnybrook Health Sciences Center, 2008

**Mark Levine** (Associate Professor, The Hospital for Sick Children)
- The Hospital for Sick Children Teaching Award, 2007

**Colin McCartney** (Associate Professor, Sunnybrook Health Sciences Centre)
- Regional Teaching Award, Sunnybrook’s Holland Orthopaedic & Arthritic Centre, 2008

**Patricia McGrath** (Professor, The Hospital for Sick Children)
- Elected to Executive of International Association for the Study of Pain, 2008

**Claire Middleton** (Assistant Professor, University Health Network, Toronto General Hospital)
- Individual Teaching Award for Teaching Excellence (Postgraduate Education). Wightman-Berris Academy, University of Toronto, 2008

**Basem Naser** (Assistant Professor, The Hospital for Sick Children)
- Award of Excellence In Resident Teaching, Department of Anesthesia, The Hospital for Sick Children, 2008

**Elaine Ng** (Assistant Professor, The Hospital for Sick Children)
- The Hospital for Sick Children Teaching Award, 2007

**Peter Slinger** (Professor, University Health Network, Toronto General Hospital)

**Gordon Tait** (Assistant Professor, University Health Network, Toronto General Hospital)
- Perioperative Interactive Education team awarded two out of three awards of merit presented by the Association of Medical Illustrators in the category of Professional Interactive Media in 2008

**Annette Vegas** (Assistant Professor, University Health Network, Toronto General Hospital)
- Individual Teaching Award for Teaching Excellence (Postgraduate Education). Wightman-Berris Academy, University of Toronto, 2007-2008

**Duminda Wijeysundera** (Lecturer, University Health Network, Toronto General Hospital)
- Rick Gallop Award Recognizing Research Excellence, Heart & Stroke Foundation of Ontario, 2007
Report from the Vice-Chair, Clinical Practice
Dr. Gerald O’Leary

For a second year the "Anesthesia Care Team" model has dominated the changing face of anesthesia practice. This collaborative, inter-professional team-based anesthesia practice has been developed at University of Toronto affiliated hospitals over the last six years and is now being increasingly adopted across Canada. In 2007, the MOHLTC funded a $10M, two year project to support developing this concept at nine institutions including, Halton Healthcare; Kingston General Hospital; London Health Sciences Centre; Royal Victoria Hospital; Sault Area Hospital; Sunnybrook Health Sciences Centre; the Ottawa Hospital; Toronto East General Hospital; and, the University Health Network. The program's success is evident from the implementation of phase 2 of the MOHLTC supported program at new sites in 2009.

Anesthesia Assistants (AAs) are respiratory therapists or nurses who have undergone specific training to provide anesthesia care within the anesthesiologist-led practice team. There has been strong leadership shown by University of Toronto's anesthesiologists in the Anesthesia Assistant program at the Michener Institute, in both didactic education and in practicum mentorship in the clinical setting. This leadership is also reflected in the scope of curriculum content of the “Foundation Knowledge for Anesthesia Assistant,” ensuring the provision of safe and competent patient care as proposed by the Canadian Society of Respiratory Therapists. Leadership is also shown by input at the CAS Allied Health Committee in identifying AA roles and career development across Canada.

University of Toronto anesthesiologists have also been active in co-developing, with the Faculty of Nursing (University of Toronto), the curriculum for the Nurse Practitioners/Anesthesia Program. This is the first such program in Canada and it plans to build on the close professional relationship already in place between anesthesia and nursing. The didactic and practicum components of the course are being lead by the University Health Network and Mount Sinai Hospital anesthesiologists. The course will expose graduates to the full scope of anesthesia practice with particular emphasis on the pre- and post-operative components of anesthesia care. The course will start in 2009 and its progress will be actively followed by many.
The following table records anesthesia-related clinical data obtained from the UT affiliated local teaching hospitals for the period July 1, 2007 to June 30, 2008:

<table>
<thead>
<tr>
<th>Hospital Statistics</th>
<th>Toronto General Hospital</th>
<th>Toronto Western Hospital</th>
<th>Mount Sinai Hospital</th>
<th>Women’s College Hospital</th>
<th>Sunnybrook Health Sciences Centre</th>
<th>Saint Michael’s Hospital</th>
<th>The Hospital for Sick Children</th>
<th>TOTAL – ALL SITES</th>
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<td>General Anesthetics</td>
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<td>5,673</td>
<td>11,097</td>
<td>3,564</td>
<td>9,906</td>
<td>12,309</td>
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<td>Regional Anesthetics</td>
<td>49</td>
<td>3,600</td>
<td>5,956</td>
<td>268</td>
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<td>2,334</td>
<td>971</td>
<td>16,040</td>
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<td>Deliveries</td>
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<td>6,539</td>
<td>3,509</td>
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<td>3,386</td>
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<td>Epidurals/Spinals</td>
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<td>32.8%</td>
<td>35%</td>
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<td>Pain Clinic Cases</td>
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<td>1,871</td>
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<td>4,808</td>
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<td>2</td>
<td>65</td>
<td>56</td>
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Report from the Vice-Chair, Education
Dr. Patricia Houston

The University of Toronto Department of Anesthesia continues to be recognized locally and nationally for excellence in its educational programs and individual faculty members. Our education programs are incorporating new technologies into curriculum and evaluation processes and review the teaching and learning experience of our students in an iterative and reflective manner. We have been fortunate in securing funding for a new role in educational administration. This year, Dr. Doreen Yee was appointed Director of Fellowship and International Medical Graduate Education. She brings a wealth of administrative and educational expertise to this role and will help to support this student cohort.

At the department’s annual research day, Shields Day, awards are presented to outstanding teachers in the Department of Anesthesia. The 2008 recipients were:

**Dr. William Middleton:** The Dr. John Desmond Award for Excellence in Undergraduate Education

**Dr. James Teresi:** The Dr. Gerald Edelist Award for Excellence in Postgraduate Education

**Dr. Vincent Chan:** The Dr. David Fear Award for Excellence in Continuing Education

The undergraduate program is moving towards an increase in technology-supported education. All curriculum material is now available on the University of Toronto Portal. Students also keep electronic logs of their technical skills learning and all evaluations are submitted and collated online. A University of Toronto Anesthesia Textbook is in the final stages of production. This is a collaborative effort of the Undergraduate Committee led by Dr. Isabel Devito.

The postgraduate program continues to grow with an increase in the number and diversity of students enrolled in our program. With this growth has come distribution of the teaching program to new sites and a growth in our teaching faculty numbers. Planning for a curriculum review process is well underway and faculty development remains an important priority for the program. Dr. Mark Levine represents the department at the Postgraduate Committee of the Association of Canadian Departments of Anesthesia. He is leading a national curriculum review process with emphasis on the medical expert role.

Led by Dr. Peter Slinger, the many and varied continuing education programs supported by the Continuing Education Committee denote the breadth and depth of expertise and knowledge in our department. Many of these meetings attract national attention and the committee has done an excellent job in addressing the needs of its constituents. This should continue to improve as the results of the Continuing Education Survey conducted by Dr. Martin van der Vyver shape our future programming.

Commitment to excellence in education is a focus of the department and the innovation and creativity of our teachers and programs is a source of pride for the department.
Dr. Isabella Devito, Director
Undergraduate Education Program

2007-2008 was an extremely productive year for the Undergraduate Program. We established a mandate as well as terms of reference for our Undergraduate Committee. Our mandate is stated as follows:

“The Undergraduate Education Committee’s mandate is to promote excellence in Undergraduate education from the onset to completion of Medicine, specifically promoting excellence in teaching Perioperative Medicine; including preoperative evaluation skills, resuscitation, pain management, technical skills, team centered care and other essential skills necessary for all physicians. Development and implementation of innovative teaching through simulation and web-based educational tools will be incorporated to achieve these goals.”

Our mandate incorporates generalism into our curriculum as we try to teach what should be core knowledge for all physicians.

The 2007-2008 academic year has seen many technological advances in our Year 4 Anesthesia Course. All Medical student evaluations are now completed online using MedSIS. As well, students evaluate the Anesthesia rotation, seminars and faculty online. Our fourth year course, as well as all seminar PowerPoint presentations are now available on the Portal. We are presently developing online logging (e-log) of all technical and clinical skills that should be covered during our Year 4 course. A formal mid-term feedback and evaluation process was developed to help students achieve all of their goals during their rotation. This has been a challenge to implement in the past due to the short nature of the Year 4 rotation.

The Anesthesia Interest Group (AIG) was initiated this year by two second-year medical students, Julie Mathew and Robert Bechamp. They developed an interest in Anesthesia while participating in summer research projects at the Toronto General Hospital (UHN). The AIG is a group of first and second year students who have an interest in learning more about Anesthesia as a specialty. They have organized evenings with faculty and resident speakers, as well as informal events. At the present time, the University of Toronto has the only anesthesia department in Canada with an AIG.

Two University of Toronto students were recipients of the CAS Medical Student Essay Contest at the Canadian Anesthetist Society meeting in Halifax. Trevor Arnason placed first for his essay entitled “Canada’s other Great Triumvirate of Anesthesia” and Lindsay MacKenzie was co-recipient of third place for her essay entitled “The Anesthesiologist’s Role as a Communicator: Critical to Practice”. This is the first year that a University of Toronto student has won this annual contest.

The Undergraduate Committee has seen numerous changes this year. Drs. H. El-Beheiry, D. Chandra, G. Kanellakos and M. van der Vyver stepped down after many years of dedication to the undergraduate program. Drs. A. Perlis, R. Mai, L. Bahrey and D. Djordjevic joined our undergraduate program in their place. Our committees’ dedication has been instrumental in the success of our undergraduate program.

Our faculty teaching continues to be of a high caliber. The faculty Teaching Effectiveness Scores (TES) have ranged from 4.22 to 5 out of 5 for overall rating of teachers at our academic centers during our Clerkship rotation. The departmental mean was 4.61.

Our faculty members continue to be involved in all years of medicine. We are involved in selecting the medical school class during file reviews and the interview process. In Years 1 and 2, the faculty are involved in teaching ASCM (Art and Science of Clinical Medicine) I and II, DOCH (Determinants of Community Health) II, Metabolism and Nutrition, Foundations of Medical Practice and Brain and Behaviour. In third year all hospitals offer an extensive elective program. Our elective program is so popular that we have been unable to accommodate the high demand for our courses. Our hospital coordinators make every attempt to place Canadian students studying in Canada as their first priority.
Our fourth year rotation continues to be grouped with Emergency Medicine. During their 5 week rotation students spend eight to nine days in Anesthesia and the remainder of time in Emergency Medicine. The students continue to ask for longer rotations and placements in third year as opposed to fourth year.

Our University of Toronto Medical School Textbook is nearing completion. Many faculty members throughout the teaching hospitals have contributed chapters to our textbook. We are eagerly anticipating the publication of this book.

Our focus for the next academic year is the further development of simulation and web-based learning. We plan to build on an already strong simulation program, and will look at developing new e-learning tools.

Undergraduate Education Committee Members 2007 - 2008:

Dr. L. Bahrey University Health Network (Toronto General Hospital)
Dr. D. Chandra St. Michael's Hospital
Dr. M. Choi Sunnybrook Health Sciences Centre
Dr. I. Devito (Chair) Mount Sinai Hospital
Dr. D. Djordevic Women’s College Hospital
Dr. H. El-Beheiry University Health Network (Toronto Western Hospital)
Dr. P. Houston St. Michael’s Hospital
Dr. D. Irwin Mount Sinai Hospital
Dr. G. Kanellakos University Health Network (Toronto General Hospital)
Dr. B. Kavanagh The Hospital for Sick Children
Mr. J. Kim Student Representative, Year 3
Dr. R. Mai St. Michael's Hospital
Dr. P. Mark Toronto East General Hospital
Dr. A. Perlas University Health Network (Toronto Western Hospital)
Dr. J. Robertson The Hospital for Sick Children
Dr. A. Sarmah Sunnybrook Health Sciences Centre
Mr. R. Sunder Student Representative, Year 4
Dr. M. van der Vyver Women’s College Hospital
The Anesthesia residency program continues to grow. In July 2007 we welcomed twenty new PGY 1 residents to the department – fifteen Canadian Medical Graduates, four International Medical Graduates (IMG’s), one internationally sponsored trainee, and one new IMG at the PGY 2 level. In addition, we also train up to four Family Practice anesthesia residents and over 80 fellows every year. Further, we evaluate two fully trained IMG’s to determine whether they are ready to enter independent practice without further training.

The Postgraduate Education Committee is responsible for advising and assisting the Program Director in managing the program. The committee meets monthly and deals with issues relating to all aspects of resident education including curriculum review (a major review of the academic program is currently underway), resident safety and wellness, evaluation of residents, rotations and teachers and the distribution of residents to different sites. In a move aimed at improving resident well being and safety and patient safety, residents at the busier sites now take call for 16 hours rather than the traditional 24 hours.

In addition to the Program Director, Department Chair and Vice Chairs of Education and Research, the Postgraduate Education Committee of the Department of Anaesthesia has a resident representative from each year of training and a faculty representative from each of the teaching site. Drs. Jeff Wassermann and Henderson Lee stepped down from the committee in June 2008, after making significant contributions to the program committee for many years.

Our residents rotate through seven different hospital departments and therefore gain experience in all fields of anesthesia and in providing anesthetic care for patients of all ages and complexities. In addition, all residents complete rotations in obstetrical anesthesia, regional anesthesia, chronic pain and community hospital-based anesthesia. Residents are encouraged, but not mandated, to participate in research and many opportunities are available to them. In the past year our residents presented papers at the department’s Annual Shields Research Day, as well as the Canadian Anesthesiologists Society, American Society of Regional Anesthesia and Pain Medicine, and Society for Obstetric Anesthesia and Perinatology meetings.

Enrolment in medical schools has started to increase and with this comes an increase in funding for postgraduate training positions. Together with the increase in CMG and IMG funding we are faced with an ever increasing number of trainees seeking anesthesia experience including medical students, anesthesia residents, residents from other specialties, fellows and other health care providers. We are placing a greater reliance on distributed medical education to provide our residents with the experience they need. Increasing numbers of residents are completing rotations at partially affiliated hospitals – in particular Toronto East General and St. Joseph’s hospitals. Additional alliances with other institutions will be implemented in the near future.

Congratulations to our residents and internationally trained specialists who were successful at the Royal College Examinations in Spring, 2008.

Committee Members 2007-2008

Program Director and PGEC Chair: Dr. M. Levine

Program Coordinators:

Dr. K. Dattilo University Health Network (Toronto General Hospital)
Dr. H. Fischer Mount Sinai Hospital
Dr. M. Graham Sunnybrook Health Sciences Centre
Dr. S. Halpern Women’s College Hospital
Dr. R. Ko University Health Network (Toronto General Hospital)
Dr. H. Lee Toronto East General Hospital
Dr. B. Middleton University Health Network (Toronto Western Hospital)
Dr. E. Ng The Hospital for Sick Children
Dr. J. Wassermann St. Michael’s Hospital
Anesthesia Simulator:
Dr. V. Naik St. Michael’s Hospital

Education Committee UHN:
Dr. I. Devito University Health Network (Mount Sinai Hospital)

Resident Counsellors:
Dr. B. Morningstar Sunnybrook Health Sciences Centre
Dr. D. Riegert Sunnybrook Health Sciences Centre

Residents:  
PG1 Dr. Warren Luksun  
PG2 Dr. Diana Hayward  
PG3 Dr. John Hanlon  
PG4 Dr. Greg Silverman  
PG5 Dr. Hance Clarke

Our residents take advantage of many research opportunities and dedicate themselves to various projects. The experience they obtain is unparalleled.
THE CLINICIAN SCIENTIST STREAM

The Department of Anesthesia at the University of Toronto is recognized for its excellent postgraduate clinical training program. The teachers in the department are committed to training residents towards a broad range of career goals in both academic and community practice. These objectives are achieved through the strong commitment to education, excellent research training opportunities and exposure to a wide variety of clinical practice. The education of future academic anesthetists is an important mission of the department and the clinician-scientist stream has been established as an opportunity to further this goal in the residency.

Goals
- Provide a small group of residents with fundamental training in research methodology;
- Foster critical thinking in a research environment of the highest quality;
- Prepare anesthesia trainees for careers as independent investigators in academic departments;
- Provide an opportunity for residents to contribute to the expansion of the fundamental understanding of anesthesia;
- Attain the above objectives in the context of excellent clinical training.

The clinician-scientist stream is a component of the postgraduate training program in Anesthesia. Potential participants are identified and recruited into the program during their PGY1 or PGY2 years of training. Residents commit at the outset to a minimum of two years of 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 of this research training counts toward the Royal College requirements in Anesthesia.

The laboratory or area of interest in which the resident will work is selected during the PGY2 clinical year, after discussion with investigators from various disciplines. Residents in the Clinician-Scientist stream can start their research experience after the PGY2 year and complete clinical training following the research period.

Research Programs
Research interests of residents undertaking graduate research can include any of the following:
- Molecular basis of anesthesia;
- Clinical pharmacology;
- Clinical epidemiology/outcomes research;
- Neurophysiology;
- Cardiovascular and cardiopulmonary physiology;
- Pain research; and,
- Research in education.

Application to the Clinician-Scientist Stream
Residents in the anesthesia program who wish to prepare for an academic research career are invited to apply for the Clinician-Scientist stream through the office of the Program Director. Each year funding is available for a maximum of two residents to participate in the Clinician-Scientist stream through the Alan K. Laws Clinician Scientist Fellowship.
University of Toronto Clinical Fellowship Research Seminar Series

The Research Committee places a high priority on research education in the University of Toronto fellowship training program. To this end, a series of graduate level seminars on statistics, research design and research related computer skills were organized. The Research Committee is particularly grateful to the following individuals for teaching the following subjects. The seminars are coordinated by Dr. Mark Crawford and take place on Wednesday evenings at The Hospital for Sick Children.

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Teacher</th>
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<tr>
<td>November 14</td>
<td>Computer Literature Search 1</td>
<td>Ms. Elizabeth Uleryk</td>
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<tr>
<td>November 21</td>
<td>Computer Literature Search 2</td>
<td>Ms. Elizabeth Uleryk</td>
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<td>November 28</td>
<td>Bibliographic Software Management Systems*</td>
<td>Ms. Tamsin Adams-Webber</td>
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<td>December 5</td>
<td>Critical Appraisal</td>
<td>Dr. Stephen Halpern</td>
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<td>December 12</td>
<td>Databases, Handling data</td>
<td>Dr. Guy Petroz</td>
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<td>January 9</td>
<td>Issues in Informed Consent</td>
<td>Dr. David McKnight</td>
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<tr>
<td>January 16</td>
<td>Randomized Clinical Trials, Hypothesis testing</td>
<td>Dr. Patricia McGrath</td>
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<td>January 23</td>
<td>Systematic Reviews</td>
<td>Dr. Patricia McGrath</td>
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<tr>
<td>January 30</td>
<td>Statistics 1: Measurement Scales, Types of Data</td>
<td>Dr. Guy Petroz</td>
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<td>February 6</td>
<td>Statistics 2: Tests for Parametric data: two groups</td>
<td>Dr. Mark Crawford</td>
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<td>February 13</td>
<td>Statistics 3: Sample Size and Power Analysis</td>
<td>Dr. Mark Crawford</td>
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<td>February 20</td>
<td>Statistics 4: Confidence Intervals</td>
<td>Dr. Mark Crawford</td>
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<td>February 27</td>
<td>Statistics 5: AVOVA</td>
<td>Dr. Hossam El-Beheiry</td>
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<td>March 19</td>
<td>Statistics 6: Tests for Nominal Data</td>
<td>Dr. Mark Crawford</td>
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<td>March 26</td>
<td>Statistics 7: Linear Regression, Correlation</td>
<td>Dr. Hossam El-Beheiry</td>
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<td>April 2</td>
<td>Statistics 8: Logistic Regression, Multivariate Analysis</td>
<td>Dr. Hossam El-Beheiry</td>
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<tr>
<td>April 9</td>
<td>Statistics 9: Tests for Ordinal Data</td>
<td>Dr. Mark Crawford</td>
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<td>April 16</td>
<td>Statistics 10: Statistical Software</td>
<td>Dr. Guy Petroz</td>
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<td>April 30</td>
<td>Scientific Misconduct</td>
<td>Dr. David McKnight</td>
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<td>May 7</td>
<td>Relationships with Pharmaceutical Companies</td>
<td>Dr. Robert Byrick</td>
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<tr>
<td>May 14</td>
<td>How to get your Paper Published</td>
<td>Dr. Frances Chung</td>
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<tr>
<td>May 28</td>
<td>Setting up a Research Laboratory</td>
<td>Dr. Daisy Joo</td>
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<tr>
<td>June 4</td>
<td>Slide Making (Powerpoint)</td>
<td>Dr. Annette Vegas</td>
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Dr. Peter Slinger, Chair  
Continuing Education Committee

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

Course Development

Each year the committee supervises the Anesthesia Practice Meeting, currently under the co-direction of Drs. Martin van der Vyver and Pamela Angle in 2008. This three-day course provides a combination of lectures, workshops and small group sessions for both Fellowship and GP Anesthetists. Over the past three years, the meeting has been extremely successful with unprecedented numbers of participants.

Course Sponsorship

The CME Committee aids in the development and accreditation of ongoing CME courses produced by the University of Toronto Department of Anesthesia. The following courses were offered in 2007-2008:

- **Interventional Approaches in the Treatment of Spinal Pain**, Toronto  
  Dr. Michael Gofeld (Adjunct Professor, Sunnybrook Health Sciences Centre)

- **Regional Anesthesia and Pain Medicine**, Muskoka  
  Dr. Colin McCartney (Associate Professor, Sunnybrook Health Sciences Centre)

- **Toronto Critical Care Symposium**, Metro Toronto Convention Centre  
  Dr. Brian Kavanagh (Professor, The Hospital for Sick Children)

- **Introductory Ultrasound Workshop**, Toronto Western Hospital  
  Dr. Vincent Chan (Professor, Toronto Western Hospital)

- **Obstetric Anesthesia Conference**, Mount Sinai Hospital, Toronto  
  Dr. Jose Carvalho (Associate Professor, Mount Sinai Hospital)

- **Marshall Lecture – Guest Speaker: Dr. David Menon**, Toronto Western Hospital  
  Dr. Pirjo Manninen (Associate Professor, Toronto Western Hospital)

- **Mont Tremblant Anesthesia and Perioperative Medicine Conference**, Quebec  
  Dr. Claude Laflamme (Assistant Professor, Sunnybrook Health Sciences Centre)  
  Dr. Daniel Riegert (Assistant Professor, Sunnybrook Health Sciences Centre)  
  Dr. Jordan Tarshis (Assistant Professor, Sunnybrook Health Sciences Centre)

- **Toronto Anesthesia Symposium**, Marriott Downtown Toronto Eaton Centre Hotel  
  Dr. Aliya Salman (Lecturer, Mount Sinai Hospital)  
  Dr. Peter Slinger (Professor, Toronto General Hospital)  
  Dr. David Wong (Associate Professor, Toronto Western Hospital)

- **5th Annual International Symposium of Ultrasound for Regional Anesthesia**, Metro Toronto Convention Centre  
  Dr. Vincent Chan (Professor, Toronto Western Hospital)

- **29th Annual Shields Research Day**, Metro Toronto Convention Centre  
  Dr. Guy Petroz (Assistant Professor, Sunnybrook Health Sciences Centre)
**Advanced Workshops for Ultrasound Guided Nerve Blocks**, Toronto Western Hospital
Dr. Vincent Chan (Professor, Toronto Western Hospital)

**City Wide Rounds:**
City-Wide Webcast and Telecast Pain/Regional Anesthesia Rounds are organized by Dr. Joseph Kay (Assistant Professor, Sunnybrook Health Sciences Centre) four times per year.

**Web-Based Learning:**

1. **CME Online Anesthesia Rounds:** This program has been enlarged to eight educational modules. This program has been developed by Dr. Sharon Davies (Assistant Professor, Mount Sinai Hospital). These modules have been accredited by the University of Toronto for MainCert Category I credits and can be accessed through the UT Department of Anesthesia website (www.anesthesia.utoronto.ca) under: Education/Continuing Medical Education: http://www.anesthesia.utoronto.ca/edu/cme/courses.htm

2. **Web-based Bronchoscopy Simulator:** The Thoracic Anesthesia group of the Toronto General Hospital has created an online bronchoscopy simulator to improve Anesthesiologist’s skills in providing lung isolation for thoracic anesthesia by learning bronchial anatomy. The Simulator and Quiz can be accessed on the website www.ThoracicAnesthesia.com.

**Continuing Professional Development:**
Dr. Martin van der Vyver (Assistant Professor, Sunnybrook Health Sciences Centre) has completed an Anesthesia Faculty needs assessment in CPD in 2008. These data will now be processed to help plan future CPD initiatives in Anesthesia.

**Committee Members:**

- Dr. P. Slinger (Chair) University Health Network (Toronto General Hospital)
- Dr. P. Angle Women’s College Hospital
- Dr. S. Davies Mount Sinai Hospital
- Dr. L. Eisen Mount Sinai Hospital
- Dr. M. Freidlander North York General Hospital
- Dr. P. Houston St. Michael’s Hospital
- Dr. L. Issac The Hospital for Sick Children
- Dr. B. Kavanagh The Hospital for Sick Children
- Dr. J. Kay Sunnybrook Health Sciences Centre
- Dr. C. Knapp North York General Hospital
- Dr. C. Loffelmann St. Michael’s Hospital
- Dr. J. Tarshis Sunnybrook Health Sciences Centre
- Dr. J. Tibbett Toronto East General Hospital
- Dr. M. van der Vyver Sunnybrook Health Sciences Centre
- Dr. L. Venkatraghavan University Health Network (Toronto Western Hospital)
Report from the Vice-Chair, Research
Dr. David Mazer

2007-2008 has been another very successful year for the University of Toronto Department of Anesthesia, with an impressive array of research activities. We are proud of the contributions from a wide variety of members of our department to the generation and dissemination of new knowledge related to the specialty of anesthesia. In a recent analysis of publications and citation counts for the years 2002-2007, our department ranked first among G13 and Association of American Universities (AAU) public universities, and second overall for all AAU institutions. Our 321 publications and 2,092 citations were more than double that of any other Canadian anesthesia department. The list of accomplishments in terms of our publications, grants, awards and presentations is enclosed in this report. Publications from members of our department have appeared in a very wide range of high impact journals including Nature Medicine, New England Journal of Medicine, Scientific American, JAMA, Lancet, British Medical Journal, Anesthesiology, Pain, Stroke, PNAS, Circulation, Journal of Biological Chemistry, and American Journal of Physiology. These publications highlight our commitment to research and knowledge translation related to anesthesia, pain, perioperative medicine, and critical care.

Our department continues to be a leader in the understanding of mechanisms of anesthesia and memory; physiology of traumatic brain and acute lung injury; novel techniques for management of patients undergoing regional anesthesia and outpatient procedures; obstetrical anesthesia; cerebrovascular physiology; clinical trials; perioperative anemia and blood transfusion; and simulation with a focus on patient safety. We serve as Associate Editors or Editorial Board Members of many prestigious journals such as Anesthesiology, Anesthesia and Analgesia, American Journal of Respiratory and Critical Care Medicine, Intensive Care Medicine, Canadian Journal of Anesthesia, Journal of Cardiothoracic and Vascular Anesthesia, and Regional Anesthesia and Pain Medicine. We have also had important roles in the organization and planning of international scientific meetings of the Canadian and American Societies of Anesthesia, the American Society of Regional Anesthesia, Society of Cardiovascular Anesthesiologists, Society for Ambulatory Anesthesia, and the Critical Care Canada Forum. In 2010, the University of Toronto will host the 8th International Conference on Mechanisms of Anesthesia (MAC2010).

In the past year, we have undertaken several new initiatives to further improve our research productivity. Our department has implemented an internal peer review system to improve the success of external grant applications and a popular Research-in-Progress Seminar Series has been undertaken to nurture, discuss and enhance early-stage research ideas. The following Research-in-Progress presentations were offered in 2007 and 2008:

**September 24, 2007**

“A proposal for an RCT of Erythropoietin to modify the risks of perioperative anemia in cardiac surgery”
Presenter: Dr. Keyvan Karkouti
Discussant: Dr. David Mazer

“Evaluation of an anatomically guided, logically formulated airway measure to predict difficult intubations”
Presenter: Dr. Zeev Friedman
Discussant: Dr. Andrew Baker

**November 27, 2007**

“Using the Pre-Assessment Clinic to Address the Evidence-to-Care Gap in Cardiovascular Disease”
Presenter: Dr. Duminda Wijeysundera
Discussant: Dr. David Mazer

“Hypercapnic Spontaneous Hyperpnoea and Recovery from Sevoflurane Anesthesia”
Presenter: Dr. Rita Katznelson
Discussant: Dr. Greg Hare
May 1, 2008

“Gabapentin to Reduce Pruritis in Children with Burns”
Presenter: Dr. Jason Hayes

“Erythropoietin as a Cytoprotective Agent in High Risk Patients Undergoing Cardiac Surgery: A Feasibility Trial”
Presenter: Dr. George Djaiani

Special Discussant: Dr. Charles Natanson, Senior Investigator and Head, Anesthesia Section, National Institutes of Health Clinical Center, Bethesda

Congratulations to Dr. Frances Chung who received the 2008 Departmental Research Award. Dr. Chung has made outstanding contributions in the areas of ambulatory anesthesia, obstructive sleep apnea and geriatric anesthesia, and was the recipient of the Canadian Anesthesiologists’ Society Research Recognition Award in 2007.
29TH Annual Shields Research Day

The 29th Annual Shields Research Day took place on Friday, May 2nd at the Metro Toronto Convention Centre. This year, we welcomed over 300 participants to this very successful event! In the morning, Dr. Charles Natanson, Senior Investigator and Head, Anesthesia Section, NIH Clinical Center, delivered the Annual Shields Lecture on “Unintended Consequences of Randomization in Clinical Trials”. In the afternoon, an Open Forum on the Anesthesia Care Teams was presented featuring Dr. Andrew Baker, Dr. Stephen Brown, Dean Sioban Nelson (Bloomberg Faculty of Nursing), and Dr. Keith Rose. These panelists eloquently highlighted and discussed developments around the implementation of the ACTs, and the anesthesia specialty more broadly. Dr. Stuart Vandewater, Emeritus Professor of Anesthesia, Queen’s University, and a former faculty member of our own UT department, provided an entertaining and thoughtful historical perspective on anesthesia in Toronto during the 1940s and 1950s.

45 very strong posters were presented throughout the day. We received excellent feedback about the quality and format of the presentations.

The following awards were presented:

- **The Dr. John Desmond Award**: Dr. Bill Middleton (UHN, Toronto Western Hospital)
- **The Dr. Gerald Edelist Award**: Dr. James Teresi (Mount Sinai Hospital)
- **The Dr. David Fear Award**: Dr. Vincent Chan (UHN, Toronto Western Hospital)
- **The UT Anesthesia Faculty Research Award**: Dr. Frances Chung (UHN, Toronto Western Hospital)
- **The R.J. Byrick Award**: Dr. M. Dylan Bould (St. Michael’s Hospital)
- **The A.C. Bryan Award**: Ms Tenille Ragoonanan (University of Toronto)
- **The Dr. Hynek Rothbart Award**: Dr. John Hanlon (University of Toronto)
- **The Thomas Donald Hammell Memorial Award in Anesthesia**: Dr. Hance Clarke (University of Toronto)
- **The UT Anesthesia Best Shields Day Poster Award**: Dr. Ronit Lavi (UHN, Toronto General Hospital)
- **The Dr. Evelyn Bateman Award**: Ms. Natasha Ruth Saunders (University of Toronto)

Poster Session A

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<thead>
<tr>
<th>A(O)1</th>
<th>Oxytocin pre-treatment decreases oxytocin-induced myometrial contractions in pregnant rats in a dose but not time-dependent manner</th>
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<td><strong>Joyce Magalhaes</strong> Mount Sinai Hospital</td>
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<tr>
<th>A(O)2</th>
<th>Hypotension during elective cesarean delivery under spinal anesthesia: Role of noninvasive thoracic bioimpedance cardiography</th>
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<td><strong>Bruno Borges</strong> Mount Sinai Hospital</td>
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<tr>
<th>A(O)3</th>
<th>Influence of biopsychosocial factors on triage in a chronic pain clinic</th>
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<td><strong>Vincent Leung</strong> Faculty of Medicine, Peters-Boyd Academy</td>
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<th>A(O)4</th>
<th>Analgesia mediated by activation of a tonic inhibitory conductance in murine spinal neurons</th>
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<td><strong>Rob Bonin</strong> Sunnybrook</td>
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<tr>
<th>A(O)5</th>
<th>Anesthetic-induced impairment of memory and LTP is rescued by blockade of α5GABA-A receptors</th>
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<td></td>
<td><strong>Loren Martin</strong> University of Toronto and Sunnybrook</td>
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</table>
A(O)6 Previous exposure to isoflurane induces an alpha-5 GABA(A)-dependent impairment in fear memory.
Bechara J. Saab Mount Sinai Hospital & Sunnybrook Health Sciences Center

A(O)7 Beta - 1 adrenergic antagonism inhibits cerebral tissue oxygen delivery following hemodilution in rats
Tenille Ragoonanan St. Michaels Hospital & TGH

A8 The effectiveness and safety of gabapentin as part of a multimodal analgesic regimen for post-cesarean delivery pain: A randomized placebo-controlled trial.
Albert Moore Mount Sinai Hospital

A9 Determination of the efficacy of the transversus abdominis plane (TAP) block as part of a multimodal regimen for post-cesarean delivery analgesia: A double blinded placebocontrolled study.
Joseph F Costello Mount Sinai Hospital

A10 Spine ultrasound for facilitating labor epidurals in obese parturients
Yung Lee Mount Sinai Hospital & Sunnybrook Health Sciences Center

A11 The incidence of preoperative anxiety in neurosurgical patients undergoing a craniotomy
Anna Perks Toronto Western Hospital

A12 Electroocorticographic (ECOG) activation by anesthetic agents during epilepsy surgery under general anesthesia – Evidence Based Review
Sanjib Das Adhikary Toronto Western Hospital

A(L)13 Soluble factors contribute to ventilator-induced lung injury
Thomas Jaecklin Hospital for Sick Children

A(L)14 Effects of dexamethasone on priming of acute lung injury
Satoko Uematsu Hospital for Sick Children

A(L)15 Influence of common airway maneuvers on the electromyogram activity of the genioglossus muscle in children
Srinivasan Ilavajady The Hospital for Sick Children

Poster Session B

B(O)1 Hypothermia is also a concern under neuraxial anesthesia
Anton Marinov Sunnybrook Health Sciences Centre

B(O)2 Sonoanatomy of the lumbar spine in patients with previous accidental Dural Punctures during Labor Epidurals
Motoshi Tanaka Mount Sinai Hospital

B(O)3 A systematic review of spinal anesthesia using bupivacaine for ambulatory knee arthroscopy
Gopakumar Sudhakaran Nair Toronto Western Hospital

B(O)4 Does a low volume ultrasound-guided technique reduce common complications of interscalene brachial plexus block (ISBPB)?
Nicole Carmichael Sunnybrook Health Science Centre,

B(O)5 Effects of volatile anaesthetics on ventilator-induced lung injury (VILI) in rats
Spyridon Fortis St. Michael’s Hospital

B(O)6 Simulation based training effectively teaches residents cricothyrotomy skills regardless of model fidelity.
Matthew Dylan Bould University of Toronto
B(O)7 Sleepiness in Canadian anesthesia residents: A national survey
John G Hanlon St. Michael’s Anesthesia Research into Teaching (SMART)

B8 Femoral nerve block: Anatomical insertion point: A prospective, randomised, double-blind controlled trial
Jonathan Anns Sunnybrook Health Sciences Center

B9 Assessment of ultrasound guided posterior interscalene catheter insertion (Pippa technique)
Andrew McNaught Sunnybrook Health Sciences Center

B10 A retrospective study comparing femoral-posterior capsular block versus femoral-sciatic nerve block in patients after total knee arthroplasty.
Nadejda Ivanova Sunnybrook Health Sciences Centre

B11 Anesthesia residents’ preference for learning interscalene brachial plexus block: Traditional Winne’s vs. ultrasound guided technique
Colin Sinclair Sunnybrook Health Sciences

B12 Patient satisfaction in ambulatory anesthesia: A systematic review
Pratamaporn Chanthong Toronto Western Hospital

B13 Perioperative morbidity following different types of coronary revascularazation surgery
Ronit Lavi Toronto General Hospital

B(L)14 Ultrasonography for airway assessment – An observational study
Mandeep Singh Toronto Western Hospital

B(L)15 The effect of surgery on the sleep architecture of patients at risk of OSA - A pilot study
Valentin Voinov Toronto Western Hospital

Poster Session C

C(O)1 Proactive risk management analysis of patient handover to the post anesthesia recovery unit
Mirza Iqbal Mount Sinai Hospital

C(O)2 The clinical utility of an index of global oxygenation for guiding red blood cell (RBC) transfusion in cardiac surgery
David Orlov Faculty of Medicine & Toronto General Hospital

C(O)3 Causes of mortality after non-cardiac surgery: Interrelationship between beta blockers and anemia
Nasser Alkemyani Toronto General Hospital

C(O)4 Use of transesophageal speckle tracking echocardiography to evaluate right ventricular longitudinal strain during cardiac surgery.
Desmet Matthias St. Michael’s Hospital

C(O)5 Tranexamic acid and blood transfusion in orthotopic liver transplantation: A propensity score case control analysis.
Reza Ghaffari Toronto General Hospital

C(O)6 Human neutrophil peptides induce inflammation and coagulopathy during hemodilution resuscitation following hemorrhagic shock
Kieran Quinn St. Michael’s Hospital

C7 Sleepiness before and after: The effect of an “on-call” scheduling change in anesthesia residents
John G Hanlon St. Michael’s Anesthesia Research into Teaching (SMART)
C8 Diastolic dysfunction and postoperative atrial fibrillation in patients undergoing coronary revascularization surgery
Ronit Lavi Toronto General Hospital

C9 Effect of closure technique on sternal stability
Alana Marie Harrington St. Michael’s Hospital

C10 Predictors of peri-operative red blood cell transfusion in lung transplantation
Martin Ma Toronto General Hospital

C11 Predictors of blood transfusion in patient undergoing liver resection
Nasr Hegazy Toronto General Hospital

C12 Anesthesia for laparoscopic peritoneal dialysis catheter insertion
Gopakumar Sudhakaran Nair Toronto Western Hospital

C(L)13 Feasibility of bedside ultrasound evaluation of stomach content for general anaesthesia
Mario Lupu Toronto Western Hospital

Event Sponsors

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PEER REVIEWED PUBLICATIONS


Bell J, Ai J, Chen Y and Baker AJ. Mild in vitro trauma induces rapid GluR2 endocytosis, robustly augments calcium permeability, and enhances susceptibility to secondary excitotoxic insult in cultured Purkinje cells. Brain 130: 2528-2542, 2007


Bonin RP, Orser BA. GABA(A) receptor subtypes underlying general anesthesia. Pharmacol Biochem Behav 901: 105-112, 2008

Bonin RP, Martin LJ, MacDonald JF, Orser BA. d5GABAA receptors regulate the intrinsic excitability of mouse hippocampal neurons. J Neurophy 98: 2244-2254, 2007


Choong K, Bohn D. Maintenance parenteral fluids in the critically ill child. *Jornal de Pediatria* 83: S3-S10, 2007


Ladak SS, Chan VW, Easty T, Chagpar A. Right medication, right dose, right patient, right time, and right route: How do we select the right patient-controlled analgesia (PCA) device? *Pain Manag Nurs* 8: 140-145, 2007


Orser BA. Lifting the fog around anesthesia. Scientific American 296: 54-61, 2007


Perlas A, Chan V, Brull R, Zundert AV. Ultrasound guided peripheral nerve blocks. CPD Anaesthesia 9: 70-78, 2007


Wei WL, Sun H-S, Olah ME, Li GH, Czerwinska E, Czerwinski W, Mori Y, Orser BA, Xiong ZG, Jackson MF, Tymianski M and MacDonald JF. TRPM7 channels in hippocampal neurons detect levels of extracellular divalent cations in hippocampal neurons. Proc Nat Acad Sci 104: 16323-16328, 2007


NON PEER-REVIEWED PUBLICATIONS

Gagliese, L. The year against pain in older persons: A knowledge transfer project for Canadian community members. *Newsletter of the IASP Special Interest Group on Pain in the Older Person* January, 2008


Siddiqui N, Goldszmidt E, Carvalho JCA. Pregnant women at greater risk for CVC failure. *Anesthesiology News* 33: 10, 2007


CHAPTERS IN BOOKS


INVITED LECTURES

Angle, P
- IWK Hospital, Department of Anesthesia lecture. Halifax, Nova Scotia 2007
  “Epidural blood patch in the age of EBM - Gold standard therapy for PDPH or quackery”

Awad, I
- 5th Annual Symposium of Ultrasound for Regional Anesthesia. Toronto, Ontario 2008
  “Equipment selection and care and teaching models”
  “Basic ultrasound imaging”
  “Multimodal analgesia and transitional pain”
  “Ultrasound guided upper limb blocks”
  “Effective discharge of patients having regional anesthesia”

Avila, A
- Rehabilitation Lectures Series, Sunnybrook Health Sciences Center. Toronto, Ontario 2007
  “Interventional pain medicine lecture”
  “Medical legal issues, complications in interventional pain medicine”
- McGill University, First Canadian Workshop for Interventional Pain Medicine. Montreal, Quebec 2008
  “Transforaminal epidural approaches in chronic pain syndromes”
- Central Hospital Of Maracaibo, Zulia University. Maracaibo, Venezuela 2007
  “Evidence in interventional pain medicine for the treatment of chronic pain syndromes”

Balki, M
- Canadian Anesthesiologists’ Society Annual Meeting (Workshop Co-Chair, Speaker and Instructor). Halifax, Nova Scotia 2008
  “Ultrasound for obstetrical regional anesthesia and analgesia”
- The Toronto Anesthesia Symposium (Workshop Speaker and Instructor). Toronto, Ontario 2008
  “Central venous access and epidural ultrasound”
- Anesthetic Practice - Ultrasound (Workshop Leader). Toronto, Ontario 2007
  “Old dogma or new tricks”
- 5th Annual Mount Sinai Hospital Obstetric Anesthesia Conference. Toronto, Ontario 2007
  “Peripheral nerve damage: It is usually not about the epidural…”
  “Oxytocin pre-treatment decreases oxytocin-induced myometrial contractions in pregnant rats in a dose but not time-dependent manner”

Beattie, WS
  “Anesthetic considerations in patients having surgery after percutaneous coronary intervention”
- Atlantic Health Science Centre (Visiting Professor). Saint John, New Brunswick 2007
  “The use of recombinant factor vila in cardiac surgery”
University of British Columbia (Visiting Professor). Vancouver, British Columbia 2008
“Perioperative risk reduction in the post poise environment”

“Implementation of a structured nursing algorithm to assess preoperative risk”

“The effect of hemodilution and beta blockade on ischemic outcomes after surgery”

Bohn, D
Critical Care Canada Forum, Toronto, Ontario 2007
“Fluid controversies – Which solution is ideal?” (Co-Moderator)
“Maintenance parenteral fluids in critically ill children”

Grand Rounds Tel Hashomer Hospital (Schwartz-Reisman Visiting Scholar). Tel Aviv, Israel, 2007
“Recent trends in pediatric fluid therapy: Salt, water and cerebral oedema”

Isreali Pediatric Critical Care Association (Schwartz-Reisman Visiting Scholar). Tel Aviv, Israel, November 2007
“Respiratory support in pediatric and newborn patients”
“Diaphragmatic hernia – Pre and postnatal”
“ECMO post cardiac surgery”

Grand Rounds, Schneider’s Medical Center (Schwartz-Reisman Visiting Scholar). Tel Aviv, Israel, November 2007
“Stop bugging me: Novel therapies for sepsis”

17th Annual Pediatric Critical Care Colloquium. Whistler, British Columbia 2008
“Use of vasopressin in pediatric sepsis”
“Sodium and water disorders in the patient with TBI”
“Congenital heart disease” (Moderator)

“Pediatric and adult intensive care: State of the art” (Moderator & Speaker)
“Pediatric case reviews” (Co-Moderator)

European Symposium of the Pediatric Cardiac Intensive Care Society. Monte Carlo, Monaco 2008
“Myocarditis – Management and pitfalls for the cardiac intensivist”
“Resuscitation and mechanical support’ (Session Chair)

“Acute hypoxic respiratory failure”
“Cardiopulmonary interactions”
“Salt, water and cerebral oedema”
“Therapeutic use of hypothermia”

13th International Conference on Mechanical Ventilation. Toledo, Spain 2008
“Changes in ventilation practice and outcome in children and adults”
“Current on-going clinical trials in pediatric ARF”

“DKA (diabetic ketoacidosis) – Salt, water and cerebral oedema”
INVITED LECTURES

Brown, SC
  “Anesthetic implications for the patient with stroke”
- Interprofessional Pain Conference, University of Toronto. Toronto, Ontario 2007
  “Conquering the hurt: Gabapentin and Pregabalin use in neuropathic pain”
- Interprofessional Practice Week, The Hospital for Sick Children, Poster Presentation. Toronto, Ontario 2007
  “The chronic pain program - A model of interprofessional practice”

Brull, R
- 5th Annual International Symposium of Ultrasound and Regional Anesthesia (Workshop Leader and Speaker). Toronto, Ontario 2008
  “Infraclavicular and axillary”
  “Basic principles of ultrasound imaging”
- Regional Anesthesia, Ontario Perianesthesia Nurses Association 22nd Annual Meeting (Panelist), Toronto, Ontario 2007
  “Continuous nerve blocks for pain control: In the hospital and beyond”
  “Regional anesthesia cadaver workshop”
  “Ultrasound guided needle placements”
- 14th Annual Regional Anesthesia and Pain Medicine Conference, Continuing Medical Education, University of Toronto (Workshop Leader). Toronto, Ontario 2007
  “Intensive upper limb workshop”

Campbell, F
  “Pain matters”
- The Hospital for Sick Children (Invited Speaker). Toronto, Ontario 2007
  “Conquering the hurt: Translating knowledge about pediatric pain. The three P’s: Pharmacological, physical and psychological strategies for effective pediatric pain management”
- Pediatric Grand Rounds, Children’s Hospital of Eastern Ontario. Ottawa, Ontario 2008
  “Pain matters”
- Rachel Waugh Memorial, Children’s Hospital of Eastern Ontario (Lecturer, Visiting Professor). Ottawa, Ontario 2008
  “Pain matters – Can cannabinoids help?”
- Interprofessional Practice Rounds, The Hospital for Sick Children. Toronto, Ontario 2008
  “Pain matters: Development of organizational strategies to improve pain management, an interprofessional initiative”

Carvalho, J
- 13th Congress on Regional Anesthesia and Pain Management of the Latin American Society of Regional Anesthesia, Brazilian Chapter. Sao Paulo, Brazil 2007
  “Regional anesthesia in the morbidly obese parturient”
  “Regional anesthesia in obstetrics: Ultrasound and electro-stimulation of the epidural catheter (tsui test)”
  (Panel Moderator and Panelist)
  “Spinal ultrasound for spinals and epidurals” (Workshop Instructor 3 sessions)
- 52nd Annual Ontario Anesthesia Meeting. Niagara Falls, Ontario 2007
  “Ultrasound-guided epidurals and spinals”
  “Ultrasound for neuraxial blocks” (Workshop Instructor)
• Combined Grand Rounds, Departments of Obstetrics and Anesthesia, Dalhousie University. Halifax, Nova Scotia 2007  
  “Use of ultrasound for the institution of labour analgesia”

• 2007 Obstetric Anesthesia Conference, Mount Sinai Hospital. Toronto, Ontario 2007  
  “Strategies for safe obstetric pain management in times of obesity pandemic”

• Midwest Anesthesiology Conference. Chicago, Illinois 2007  
  “Labor epidural anesthesia: Is it possible to make it always work?”

• 54th Brazilian Congress of Anesthesiology. Natal, Brazil 2007  
  “Use of ultrasound in obstetric anesthesia”  
  “How to make anesthesia for urgent cesarean section safer: Spinal, epidural or CSE?”  
  (Panel Moderator and Panelist)  
  “What is new in obstetric anesthesia”

• Anaesthesia Practice 2007. Toronto, Ontario 2007  
  Pro-Con Debate, “CSE for labor analgesia, pro side”  
  Workshop, “Ultrasound for peripheral blocks, neuraxial blocks and vascular access”

• 61st Post-Graduate Assembly (Workshop Instructor). New York, New York 2007  
  “Comprehensive regional anesthesia hands-on cadaver”

• Department of Anesthesia, North York General Hospital. Toronto, Ontario 2007  
  “What is new in obstetric anesthesia”

• Department of Anesthesiology, Queen’s University. Kingston, Ontario 2008  
  “Ultrasound-assisted epidurals and spinals in obstetrics”

  Pro-Con Debate, “A non-particulate antacid should be used routinely in all patients undergoing cesarean section, con side”  
  “Making epidurals less blind: Ultrasound and electrical stimulation of the catheter”  
  “Severe preeclampsia” (PBLD)  
  “Spinal ultrasound” (Workshop Instructor)

• Refresher Course on Obstetric Anesthesia (pre-World Congress Satellite meeting). Cape Town, South Africa 2008  
  “Uterotonic drugs: Do we know what we are doing?”

• 14th World Congress of Anesthesiologists. Cape Town, South Africa 2008  
  “The use of ultrasound in regional anesthesia in obstetrics”  
  “Obstetric anesthesia and neonatal outcome”

• XXXII Jornada Norte-Nordeste de Anestesiologia. Aracaju, Brazil 2008  
  “High risk obstetrics: Cardiac disease”  
  “High risk obstetrics: Antepartum and postpartum hemorrhage”  
  “Anesthesia and postoperative analgesia for cesarean delivery: State of the art”

• 5th Annual International Symposium on Ultrasound and Regional Anesthesia (Workshop Instructor). Toronto, Ontario 2008  
  “Spinal ultrasound, adult neuraxial block”

• 6th Annual Refresher Course in Primary Maternity Care. Toronto, Ontario 2008  
  “Thrombocytopenia in pregnancy and birth”
• 49th Annual McGill Anesthesia Update. Montreal, Quebec 2008
  “Preventing nausea and vomiting during cesarean section”
  (Workshop Instructor), “Ultrasound for neuraxial blocks”

Chan, V
Department of Interventional Radiology, The Hospital for Sick Children. Toronto, Ontario 2008
  “Ultrasound imaging for pain management”

• Canadian Anesthesiologists’ Society 64th Annual Meeting (Workshop Leader). Halifax, Nova Scotia 2008
  “Advanced cadaveric ultrasound blocks”

• 25th Annual Pain Symposium, Texas Tech University Health Sciences Center. Lubbock, Texas 2008
  “Ultrasound imaging for pain management”

  “Ultrasound guided regional anesthesia – Is it here to stay?” (Speaker)
  “Ultrasound” (Workshop Leader)

• 33rd American Society of Regional Anesthesia and Pain Medicine Annual Spring Meeting. Cancun, Mexico 2008
  “ASRA/ESRA guidelines for ultrasound guided regional anesthesia teaching curriculum”
  (Moderator)
  “Ultrasound basic lower extremity workshop and intensive ultrasound comprehensive”
  (Workshop Leader)

• 5th Annual International Symposium of Ultrasound and Regional Anesthesia (Speaker). Toronto, Ontario 2008
  “Principles of ultrasound guided catheterization”

  “Ultrasound guided regional anesthesia” (Speaker)
  “Cadaver lab” (Workshop Leader)

• 82nd International Anesthesia Research Society Clinical & Scientific Congress. San Francisco, California 2008
  “Regional anesthesia and analgesia for acute postoperative pain control – State of the art care” (Speaker)
  “Advanced ultrasound guided nerve block and peripheral nerve blocks: Ultrasound, simulation and stimulation” (Workshop Leader)

• Vanderbilt University Medical Center, Department of Anesthesiology. Nashville, Tennessee 2008
  “Ultrasound guided regional anesthesia and other applications, regional anesthesia and ultrasound
  Applications for anesthesiologists” (Speaker)
  “Cadaver lab” (Workshop Leader)

• Australian Symposium on Ultrasound and Regional Anaesthesia. Melbourne, Australia 2008
  “Sciatic nerve block using ultrasound, new applications of ultrasound in anaesthesia, continuous catheter
  techniques and the vertebral column/neuraxial blockade” (Speaker)
  “Axillary block and supraclavicular block” (Workshop Leader)

  “What’s new in regional anesthesia” (Speaker)
  “Sonoanatomy” (Workshop Leader)

• American Society of Regional Anesthesia and Pain Medicine Annual Fall Meeting. Boca Raton, Florida 2007
  “Ultrasound guided blocks and ultrasound guided chronic pain techniques”
  “Problem based learning, ultrasound guidance in acute and chronic pain”
  “Ultrasound for regional anesthesia: Is it here to stay?”
  “Pro-con: Ultrasound guidance required for all regional anesthetics” (Speaker)
  “Ultrasound/regional anesthesia” (Workshop Leader)

• 58th American Society of Anesthesiologists Annual Meeting. San Francisco, California 2007
  “Assessing competency for ultrasound guided regional anesthesia and ultrasound for regional anesthesia” (Speaker)
  “Peripheral nerve blocks: Ultrasound, simulation and stimulation and cadaver” (Workshop Leader)
  “Ultrasound guided needle placements” (Workshop Leader)

• ESRA Scandinavian Zone Meeting, Rikshospitalet. Oslo, Norway 2007
  “Ultrasound aiding peripheral nerve blocks – Upper extremity” (Speaker)
  “Peripheral blocks” (Workshop Leader)

• 14th Annual Regional Anesthesia and Pain Medicine Conference, Continuing Medical Education, University of Toronto. Toronto, Ontario 2007
  “Ultrasound guided regional anesthesia - What is new?” (Speaker)
  “Intensive upper limb workshop” (Workshop Leader)

Chung, F

  “Adult obstructive sleep apnea (OSA): How should we screen?”
  “Quality of recovery”

• Taiwan Association of Anesthesiologists Quarterly Meeting, Triservice Military Hospital. Taipei, Taiwan 2008
  “Quality of anesthesia and recovery”

• China West Medical College, Chengdu University. Chengdu, China 2008
  “Perioperative management of OSA in the morbidly obese patient”

• 2008 Annual Meeting of Chinese Association of Anesthesiologists. Chung King, China 2008
  “Perioperative management of obstructive sleep apnea”

• Macau Anesthesiologists Meeting. Macau, China 2008
  “Desflurane and quality of recovery”

• Korean Anesthesia Meeting. Seoul, Korea 2008
  “How anesthesia recovery is measured currently”

• Singapore-Duke Anaesthesia and Critical Care Update Meeting. Singapore, April 2008
  “The perioperative management of obstructive sleep apnea in morbidly obese”
  “Quality in recovery”

• 14th World Congress of Anesthesiologists Meeting. Cape Town, South Africa 2008
  “How anaesthesia recovery is measured currently”

• Ontario Perianesthesia Nurses Association 22nd Annual Meeting. Toronto, Ontario 2007
  “Discharge scoring following ambulatory surgery”

• American Society of Anesthesiologists’ Annual Meeting. San Francisco, California 2007
  “Is escort necessary for patient discharge?”

• Society for Ambulatory Anesthesia Midyear Meeting. San Francisco, California 2007
  “The perioperative management of diabetic, obstructive sleep apnea and morbidly obese patients”
• Chinese National Anesthesia Symposium. Changsa, China 2007
  “Recent advances in ambulatory anesthesia”

Cooper, RM
• Society for Airway Management. Houston, Texas 2007
  “Extubation of the difficult airway” (Seminar)
  “Clinical use of airway exchange catheters and other extubation strategies” (Workshop)

• American Society of Anesthesiologists Annual Scientific Meeting. San Francisco, California 2007
  “Symposium: Use of LMA in unconventional settings” (Workshop)
  “Fiberoptic intubation (basic)”

• St. Joseph's Health Sciences Centre. Toronto, Ontario 2007
  “Laryngoscopy – Past and future”

• University of Toronto CME, Anaesthetic Practice 2007 Workshop. Toronto, Ontario 2007
  “ACLS review”

• Society for Technology in Anesthesia, Annual Scientific Meeting, San Diego, California 2008
  “The impact of technology on airway algorithms – Past and future”

• World Congress of Anaesthesiologists. Cape Town, South Africa 2008
  “Laryngoscopy – Past and future” (Lecture)
  “Extubation of the difficult airway” (Lecture)
  “Airway management” (Session Chair)
  “Dexterity training for fiberoptic intubation” (Workshop)

• North York General Hospital. Toronto, Ontario 2008
  “Is direct laryngoscopy obsolete?” (Grand Rounds Lecture)

  “New airway devices and techniques” (Lecture)
  “Videolaryngoscopy” (Workshop)

• European Society of Anaesthesia, Annual Scientific Meeting (Symposium Moderator, Poster Presentation Co-Chair). Copenhagen, Denmark 2008
  “The glidescope in practice”

Cox, P
• American Society of Anesthesiologists Annual Meeting. San Francisco, California 2007
  “Monitoring the child with congenital heart disease”

• Indian Pediatric Society Meeting, 9th National Congress on Paediatric Critical Care. New Delhi, India 2007
  “Where do those numbers come from?”
  “Advances in mechanical ventilation”
  “Fatal cases of pneumonia”
  “Brain death and end of life care”
  “High frequency ventilation”
  “Mannitol vs hypertonic saline debate”

• Children's Hospital of Los Angeles, Anaesthesia Conference. Los Angeles, California 2008
  “Obsessed with oxygen”

• Pediatric Critical Care Colloquium (Organizing Committee/Invited Speaker). Whistler, British Columbia 2008
  “Withdrawal of nutrition and hydration”

• 14th World Congress of Anesthesiologists. Cape Town, South Africa 2008
  “Accurate monitoring at extremes of oxygenation”
Irish Paediatric Anaesthesia and Critical Care Society (Visiting Professor & Invited Speaker). Killinarney, Ireland, April 2008  
“Quality, quality, quality”

University of Medicine and Dentistry of New Jersey (Visiting Professor & Invited Speaker). Newark, New Jersey, May 2008  
“Life at the extremes; evolution and adaptation”

Crawford, MW  
- City-wide Clinical Biochemistry Rounds, Department of Pediatric Laboratory Medicine, University of Toronto. Toronto, Ontario 2007  
“Propofol infusion syndrome”
“Pediatric publications that have changed my practice”

Davies, S  
- 5th Annual Mount Sinai Hospital Obstetric Anesthesia Conference. Toronto, Ontario 2007  
“Stay tuned: Revising amniotic fluid embolism”
- Trillium Health Center. Mississauga, Ontario 2008  
“Amniotic fluid embolus – Comments on hospital case presentation and lecture on amniotic fluid embolus”

De Ruiter, J  
- Paediatric Anaesthesia Conference Lecture. Toronto, Ontario 2007  
“Ketamine in pediatric anesthesia”

Devito, I  
- 5th Annual Mount Sinai Hospital Obstetric Anesthesia Conference. Toronto, Ontario 2007  
“Regional anesthesia in the patient with neurological disorders”

Djaiani, G  
- Anesthesia Update. Toronto, Ontario 2008  
“The role of TEE in non-cardiac surgery and ICU”
- TEE Symposium. Toronto, Ontario 2007  
“Quantitative assessment of LV function”

Faclier, G  
- McGill University, Workshop Instructor. Montreal, Quebec 2008  
“Canadian interventional pain course”

Fisher, JA  
- University of Colorado Children’s Hospital. Denver, Colorado 2008  
“The right drug, the right dose, the right time: OR drug safety system”
- University of Colorado Altitude Research Center. Denver, Colorado 2008  
“Hypoxic ventilatory response testing at altitude: The right and wrong way”
- Brain Research Center, University of Colorado Medical Center. Denver, Colorado 2007  
“Cerebrovascular reactivity: From research to clinical tool”
- Xinxiang University, Xinxiang, Zhengzhou University, Zhengzhou, Huaxi University, Visiting Professor to Hospitals, OR, ER, Chengdu, Peoples Republic of China 2007  
“Protection of front line health care workers during influenza epidemics”  
“New concepts in non-hyperbaric treatment of carbon monoxide poisoning”
• American Society of Anesthesiologists Annual Meeting, Lab Instructor. San Francisco, California 2007
  “Fiber optic intubation skills”

• Uniformed Services Anesthesia Symposium, American Society of Anesthesiology Satellite Symposium. San Francisco, California 2007
  “Development of a portable life support system for transport of battle casualties”
  “Anesthetic liquid injection vs vaporizers for delivery of anesthesia in the field”

• Naval Medical Center. Portsmouth, Virginia 2007
  “Development of a portable life support system for transport of battle casualties”
  “Anesthetic liquid injection vs vaporizers for delivery of anesthesia in the field”

• Naval Medical Center. Bethesda, Maryland 2007
  “Development of a portable life support system for transport of battle casualties”
  “Anesthetic liquid injection vs vaporizers for delivery of anesthesia in the field”

• Naval Medical Center. San Diego, California 2007
  “Anesthetic liquid injection vs vaporizers for delivery of anesthesia in the field”

Friedman, Z
  “Obstetric anesthesia simulation” (Workshop)

• Annual National Course for Practising Surgeons. Toronto, Ontario 2008
  “Multimodal analgesia for post operative pain control. Updates in general surgery”

• University of Toronto Faculty Development Day. Toronto, Ontario 2007
  “Evaluating technical skills”

• 5th Annual Mount Sinai Hospital Obstetric Anesthesia Conference. Toronto, Ontario 2007
  “Novice mistakes during the performance of epidural anesthesia - What can we learn?”

• University of Toronto Research Seminar Series. Toronto, Ontario 2007
  “Evaluation of airway measures to predict difficult intubations”

• MSR Medical Simulation Center, Sheba Medical Center, Tel Aviv University. Tel Aviv, Israel 2007
  “Objective assessment of manual skill - How, why and when?”

Gagliese, L
• Ontario Cancer Institute Research Retreat, University Health Network. Toronto, Ontario 2008
  “The psychobiology of pain and aging”

• Royal Canadian Institute for the Advancement of Science. Toronto, Ontario 2008
  “At my age…Living with cancer pain across the adult lifespan”

• 9th World Congress of Psycho-oncology. London, England 2007
  “Cancer pain across the adult lifespan”

Goldszmidt, E
• 5th Annual Mount Sinai Hospital Obstetric Anesthesia Conference. Toronto, Ontario 2007
  “Making dural punctures less of a headache”

• Anesthetic Practice. Toronto, Ontario 2007
  “Ultrasound for vascular access workshop”

• 18th International Symposium on Adult Congenital Heart Disease. Toronto, Ontario 2008
  “Obstetric anesthesia for adult congenital heart disease”
Grise, AD
- McMaster University Information Evening. Hamilton, Ontario 2007
  “Anesthesia group practice for academic anesthesiologists”

Halpern, S
  Pro-Con Debate: “Regional anesthesia is safer than general anesthesia for cesarean section - Con”

Hayes, J
- Research-in-Progress Rounds, University of Toronto, Department of Anesthesia. Toronto, Ontario 2008
  “A randomized double-blind placebo controlled trial of Gabapentin for the treatment of pruritus caused by burn injuries in children”

Heggie, J
- American College of Cardiology International Symposium on Adult Congenital Heart Disease, Plenary Session. Toronto, Ontario 2008
  “Anesthetic considerations in ACHD: It is the details that matter”

Idestrup, C
- Anaesthetic Practice, Short Lecture and Workshop Presentation. Toronto, Ontario 2007
  “Ultrasound guided peripheral nerve blocks”
  “Ultrasound guided peripheral nerve blocks”
  “Ultrasound guided peripheral nerve blocks”

Isaac, L
- Anaesthetic Practice. Toronto, Ontario 2007
  “Complicated pain in a child”

Jadad, A
- Summer Executive Course, Carmona University, Andalusia, Spain 2007
  “Innovation and youth (Innovacion y jovenes)”
- 65th Anniversary of the Faculty of Medicine, Javeriana University, Opening Keynote Lecture, 11th Millennial Milestones. Bogota, Colombia 2007
  “Computers, medicine and humans”
- Networking and Recognition Breakfast at Skills for Change, Diversity at Work. Toronto, Ontario 2007
  “Is your business ready for the demographic tsunami?”
- St. Michael’s Hospital Annual Management Day. Toronto, Ontario 2007
  “The consumer of the future. Healthcare 2020: Adaptability to meet the needs of tomorrow”
  “Humanodes in the global superorganism: Optimizing our health and well-being in the 21st century”
- XV Cochrane Colloquium, Video-Keynote Lecture. Sao Paolo, Brazil 2007
  “The consumer perspective in the age of social networks”
- 18th National and Andean Congress on Telecommunications. Cartagena, Colombia 2007
  “The benefits of information and communication technologies to humans (El beneficio de las TICs en los humanos)”
- Consumer Health Informatics Summit, University of Ottawa, Video-Keynote Lecture. Ottawa, Ontario 2007
  “Consumer health informatics: Supporting the high-touch”
• International Conference Global Perspectives in Chronic Disease Management, Calgary, Alberta 2007
  “Stretching the chronic care model through public engagement: A view from the age of social networks”
  “The importance of national and international collaboration”

  “The institute for innovation on human well-being”

• Ontario Hospital Association’s 2007 HealthAchieve Conference. Toronto, Ontario 2007
  “The public will not wait for us…”

• 1st Point of Care Testing (POCT) Workshop, Video-Keynote Lecture. Riyadh, Saudi Arabia, November 2007
  “Data collection and knowledge management at the point of care in the age of social networks”

• Institute for Work and Health Open Plenary Series. Toronto, Ontario 2007
  “Surfing the demographic tsunami: Preparing for new needs and new roles in the age of social networks”

• Bridgepoint Health, LiveWell!, Lectures. Toronto, Ontario 2007
  “Living well with chronic disease in the age of the internet and social networks”

• Public Health Research Methods (Course CHL 5203), Department of Public Health Sciences, University of Toronto. Toronto, Ontario 2007
  “Knowledge transfer in the age of virtual social networks”

• Health System Information Management Division Year-End Retreat, Ontario Ministry of Health and Long Term Care, Ontario Science Centre. Toronto, Ontario 2007
  “Towards a person-centered health system: A view from the age of social networks”

• Faculty Development Seminar, Department of Health Policy, Management and Evaluation, University of Toronto. Toronto, Ontario 2007
  “Putting our fingers on the pulse of our students: On being an academic in the age of social networks”

• City Wide Clinical Epidemiology Rounds, Department of Health Policy, Management and Evaluation, University of Toronto. Toronto, Ontario 2007
  “Bias in RCT’s: Does the noise outweigh the signal?”

• Critical Care Department Rounds, St. Michael’s Hospital, Visiting Professor, Lecture and City-Wide Grand Rounds. Toronto, Ontario 2008
  “Intensive care in the age of social networks”

• 2nd International Forum of Healthcare Journalism, Video-Keynote Lecture. Tenerife, Spain 2008
  “The hospital of the future”

• Mini-Med School Lecture, University of Toronto. Toronto, Ontario 2008
  “Self-management of chronic diseases”

• University of Toronto Faculty of Dentistry’s Research Day. Toronto, Ontario 2008
  “Dental research in the age of social networks and the web 2.0”

• Ontario Hospital Association (OHA) Seminar. Toronto, Ontario 2008
  “The future of chronic disease management and prevention. Leaping forward: Moving towards transformational chronic disease management and prevention”

• Emerging Leader’s Forum. Toronto, Ontario 2008
  “Development of a person-centered health system in the age of social networks”

• Ontario Agri-Food Education (OAFE) Annual General Meeting. Guelph, Ontario 2008
  “Taking the pulse of youth in the age of social networks: Opportunities for OAFE in the 21st century”
  “Facing the demographic tsunami: Will we be able to innovate on time?”

• Global Disease Management Conference. Singapore 2008
  “Chronic disease management in a globalised world: Joining forces in the age of social networks” (Opening Keynote Lecture)
  “Providing support when there is no cure available: The role of social networks”

• Commemorative lectures as part of the award ceremonies for the Order of Cordoba and Colombia to Dr. Jadad. Cordoba, Colombia 2008
  “The future of humans in the 21st century; the future of universities; and the future of health and health care”

• 6th Annual Global Health Research Conference on the Convergence of Art & Science, Global Health Perspectives, University of Toronto. Toronto, Ontario 2008
  “Technology, place and art: How do you create optimal space and access to knowledge to enhance health?”

• 8th World Tomato Congress and 11th ISHS Symposium. Toronto, Ontario 2008
  “Vegetables, processed food and health: Major trends in the age of the internet”

• Clinical Pharmacology Grand Rounds, Sunnybrook Health Sciences Centre. Toronto, Ontario 2008
  “Clinical pharmacology in the age of the internet and online social networks”

• Toronto Breast Cancer Symposium. Toronto, Ontario 2008
  “Partnership: A key to survivorship in the age of social networks”

• North West Local Health Integrated Network Speakers Series, Video-Keynote Lecture. Ontario 2008
  “An opportunity for real change: Improved health outcomes through ICT”

Joo, DT
• Pediatric Anesthesia Conference. Toronto, Ontario 2007
  “Mechanisms of anesthesia”

Karkouti, K
• Ontario Hospital Association Annual Meeting. Niagara Falls, Ontario 2007
  “Perioperative blood conservation: The road paved with good intentions”

• ANZICS/ACCCN Intensive Care ASM. Rotorura, New Zealand 2007
  “Monitoring coagulation”
  “Hematology in ICU: New insights”

• Australia/New Zealand Royal College Lecture. Sydney, Australia 2007
  “The role of rFVIIa in cardiac surgery”

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

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

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

• Society of Cardiac Anesthesiologists Annual Meeting. Vancouver, British Columbia 2008
  “The anemia paradox: Increased risk with both anemia and blood transfusion”
Karski, J
• 5th Annual TEE symposium. Toronto, Ontario 2007
  “TEE in the intensive care”
  “Valve assessment by TEE” (workshop)

Karsli, CH
• Department of Anesthesia Research-in-Progress Seminar Series, University of Toronto. Toronto, Ontario 2008
  “The effect of anesthesia on cerebral blood flow in children”
• Critical Care Medicine Lecture Series, The Hospital for Sick Children. Toronto, Ontario 2008
  “Airway assessment and adjuncts”
  “Management of the difficult airway in the pediatric patient”
• Annual Ontario Anesthesia Meeting. Niagara Falls, Ontario 2007
  “Pediatric trauma”
• Pediatric General Surgery/Urology Laparoscopy Course. Toronto, Ontario 2007
  “Anesthesia for pediatric laparoscopic surgery”
• Fellowship Laparoscopy Course. Toronto, Ontario 2007
  “Anesthesia for pediatric laparoscopic surgery”
• North York General Hospital Anesthesia Departmental Rounds. Toronto, Ontario 2007
  “Challenges in pediatric anesthetic practice”

Katz, J
• Canadian Pain Society Annual Conference. Toronto, Ontario 2007
  “The role of the psyche and the psychologist in chronic pain”
• 3rd International Forum on Pain Medicine: Medical Specialties Meet Pain Medicine. Montreal, Quebec 2007
  “Preemption of chronic pain: Truth or fiction?”
• Chronic Pain: A Health Policy Perspective, Author’s Symposium. Banff, Alberta 2007
  “Transition of acute to chronic pain – Surgical”
• University of Toronto Centre for the Study of Pain, Interfaculty Pain Curriculum on Pain: Putting the Person at the Centre. Toronto, Ontario 2008
  “Chronic post-surgical pain – Can we prevent it?”
• McGill University Research Seminar Series, School of Physical and Occupational Therapy, Faculty of Medicine. Montreal, Quebec 2008
  “Biopsychosocial predictors of chronic post surgical pain”
  “Preventing the transition of acute postsurgical pain to chronic pathological pain: Fact or fiction”

Kavanagh, BP
• Critical Care Canada Forum. Toronto, Ontario 2007
  “Tight glucose control in the ICU: Bad for adults, worse for children”
• Innovations in Neonatal Respiratory Care. Phoenix, Arizona 2007
  “Atelectasis and lung recruitment”
  “Lung development and susceptibility to ventilator induced lung injury”
• National Children’s Hospital, Visiting Professor. Mexico City, Mexico 2007
  “Tight glucose control in ICU”
  “Problems with normalizing physiology in acutely ill patients”
  “Negative pressure ventilation – New insights from new studies”

• Grand Rounds, Department of Anesthesia, University of Western Ontario. London, Ontario 2008
  “Physiology is complicated – Be careful making it simple”
  “How ventilators injure lungs: How to raise and address concepts in critical care”

• Grand Rounds, Department of Anesthesia, Queen’s University. Kingston, Ontario 2008
  “Induced coma – Why anesthesia should be supervised by anesthesiologists”
  “Meta-analysis, clinical trials, patients and the laboratory: Making sense of lung injury”

  “VILI: An overview: Physiologic insights”
  “Quality, organization and safety: We should not always target normal values”
  “Glucose control: We should not do it”
  “Non-invasive ventilation: Revisiting negative pressure ventilation”
  “Respiratory acidosis: Balancing benefits and risks of hypercapnia”

• International Conference on Pediatric Pulmonology (CIPP). Nice, France 2008
  “Effect of mechanical ventilation in the developing lung”
  “Pulmonary hypertension: Mechanisms and acute haemodynamics”
  “Permissive hypercapnia”

• Latin-American Congress on Pediatric Critical Care. Viña del Mar, Chile 2008
  “Atelectasis and lung recruitment”
  “Glucose control in the pediatric ICU”
  “Carbon dioxide in pediatric critical care”

• Chinese Association of Anesthesiologists’ Annual Meeting. Chongqing, China 2008
  “Professionalism in anesthesia”

• American Thoracic Society. Toronto, Ontario 2008
  “Grading evidence in sepsis”
  “Ventilator-induced lung injury – Mechanisms”

• Italian Society of Anesthesia and Critical Care (SMART). Milan, Italy 2008
  “Perioperative atelectasis”
  “Glucose control in ICU”

• Canadian Society of Anesthesiologists. Halifax, Nova Scotia 2008
  “The anesthesia care team”

• Society of Cardiovascular Anesthesiologists. Vancouver, British Columbia 2008
  “Intraoperative ventilation and lung injury”

Kealey, A
• NYSORA Ultrasound-Guided Nerve Block Workshop. New York, New York 2008
  “Ultrasound for lower extremity blocks.”

Kong, YM
  “U/S upper extremity peripheral nerve block”

Laflamme, C
• Provincial Quality Health Care Network Conference. Toronto, Ontario 2008
  “Coming together, moving to action”
  “Can anesthesiologists influence long-term outcome?”
  Pro/Con debate: “Tight peri-operative blood glucose control should be the standard of care for patients undergoing cardiac surgery”

- CME for ICU Fellows, Toronto, Ontario 2008
  “How to engage physicians in health care improvement initiatives”

- Critical Care Improvement Initiative, Toronto, Ontario 2008
  “How to engage physicians in health care improvement initiatives”

- Fraser Valley Health Care Organization, Invited Professor, Fraser Valley, British Columbia 2008
  “Reducing surgical site infections”

- Improving Surgical Outcome Meeting, Mont-Tremblant, Quebec 2008
  “The role of anesthesiologists regarding surgical site infection”

Macarthur, A
- Ontario Medical Association, Division of Anesthesia Annual Meeting, Niagara Falls, Ontario 2007
  “Obstetric anesthesia – Is there a state of the art?”

- 5th Annual Mount Sinai Hospital Obstetric Anesthesia Conference, Toronto, Ontario 2007
  “Options for analgesia in parturients following vaginal delivery”

- Department of Obstetrics and Gynecology Grand Rounds, University of Toronto, Mount Sinai Hospital, Toronto, Ontario 2007
  “Postpartum analgesia”

- European Winter Anesthesia Symposium, University of Leuven, Leuven, Belgium 2008
  “Obstetric airway”

- Brazilian 13th Annual Obstetric Anesthesia Meeting, San Paolo, Brazil 2008
  “What’s new in obstetric anesthesia”
  “Obstetric airway”

McCarty, CJ
- Wake Forest University School of Medicine, Advances in Physiology and Pharmacology in Anesthesia and Intensive Care, Hilton Head, South Carolina 2007
  “Ultrasound for regional anesthesia and central venous access: Should it be my first choice?”
  “Infraclavicular and axillary block” (Workshop)

- University of Oslo, Visiting Professor, Oslo, Norway 2007
  “Ultrasound for peripheral nerve blocks”
  “Interscalene block”
  “Femoral, popliteal and sciatic blocks”
  “Continuous catheters and surveillance”

- American Society of Regional Anesthesia, Cancun, Mexico 2008
  “Has ultrasound changed the way we perform upper extremity blocks”
  “Masterclass: Upper extremity blocks”
  “Ultrasound-guided nerve blocks”

- University of California, San Diego, California 2008
  “Will ultrasound change the way we perform peripheral nerve blocks?”
  “Optimizing function following total hip and knee arthroplasty: Can the anesthesiologist make a difference?”
• Regional Anesthesia and Pain Medicine, Deerhurst Resort. Huntsville, Ontario 2007
  “Look and listen before you block: Avoiding complications of peripheral nerve blocks”
  “Lower limb blocks masterclass” (Workshop Leader)

McCluskey, SA
• Toronto Anesthesia Symposium. Toronto, Ontario 2008
  “Perioperative fluid therapy: More than less filling”

• World Congress of Anesthesiology. Cape Town, South Africa 2008
  “Preoperative cardiac evaluation and management of the patient for vascular surgery”

• Anesthesia Assistants Professional Development Day. Toronto, Ontario 2007
  “Massive blood transfusion”

• Novo Nordisk. Toronto, Ontario 2007
  “Assessment of coagulation for massive transfusion”

• Ontario Anesthesia Meeting. Niagara Falls, Ontario 2007
  “The elevated INR. What use is it?”

• Fresenius Kabi, Product Representative Training Session. Toronto, Ontario 2007
  “Perioperative blood conservation and fluid management”

• Canadian Anesthesiologist’s Society Annual Meeting, Lessons Learned From Liver Transplantation Session, Co-Chair and Presenter. Calgary, Alberta 2007
  “Hepatopulmonary syndrome and portopulmonary hypertension”

McDonnell, C
• 4th Paediatric Critical Care Symposium for Paediatric Health Care Professionals. Toronto, Ontario 2008
  “Sedation, analgesia and patient safety”

• Resident Rounds, The Hospital for Sick Children. Toronto, Ontario 2007 and 2008
  “Congenital diaphragmatic hernia”
  “ICU management of head injury”

  “How to read a scientific paper”
  “Critical events and what comes after”

• Anesthesia Telehealth Conference, The Hospital for Sick Children. Toronto, Ontario 2007
  “Perioperative tumour lysis syndrome”

• Department of Anesthesia, The Hospital for Sick Children, CME Rounds. Toronto, Ontario 2007
  “Research in progress - Effect of early administration of morphine on the development of acute opioid tolerance during infusion of remifentanil for pediatric scoliosis surgery”

McGrath, PA
• The Hospital for Sick Children Conference on Pain, Keynote Speaker. Toronto, Ontario 2007
  “Children with chronic pain: Psychological considerations”

Meineri, M
• 5th Annual Perioperative Transesophageal Echocardiography Symposium, Department of Anesthesiology, Division of Cardiac Surgery, UHN, Toronto General Hospital, Renaissance Hotel. Toronto, Ontario 2007
  “TEE for percutaneous aortic valve implantation”
  “Quantitative assessment of LV function” (Workshop with M Meineri, G Djaiani)

• Grand Round, Niguarda Ca’ Granda Hospital, Division of Cardiovascular Surgery. Milan, Italy 2007
  “Future of AVR: T-C AVR, TGH experience”
INVITED LECTURES

- Grand Round, Mauriziano Umberto I Hospital, Division of Cardiovascular Surgery. Turin, Italy 2008
  “Perioperative management of T-C AV implantation”

- Grand Round, Santa Croce Hospital, Division of Cardiovascular Surgery. Cuneo, Italy 2008
  “Perioperative management of T-C AV implantation”

McRae, K
  “Blood product usage in lung transplant recipients – Update 2007”
  “Aprotinin use for lung transplantation – Pros and cons”

- Thoracic Anesthesia Section, World Congress of Anesthesiologists. Cape Town, South Africa 2008
  “Thoracic epidural: Cardiopulmonary effects, management and effects on outcome after thoracotomy”

Middleton, C
- Michener Anesthesia Assistant Program, Anesthesia Departmental Rounds, Royal Victoria Hospital. Barrie, Ontario 2008
  “Perioperative fluid management”

Minkovich, L
  “Perioperative fluid management”

Morgan, P
- Women’s College Hospital Department Rounds. Toronto, Ontario 2007
  “Safer healthcare now: An update”

- World Congress of Anesthesiologists. Cape Town, South Africa 2008
  “Innovations in undergraduate education: Canada”
  Postgraduate Education Pro-Con Debate: “Assessment of competency needs radical change”

Murphy, PM
- ASA Annual Meeting Refresher Course Lecture. San Francisco, California 2007
  “Complex coagulation abnormalities”

  “Role of TEE in the ICU”

  “TEE and mitral valve repair”

  “Thoracic anesthesia”

- World Congress of Anesthesiologists, TEE Debate Con View. Capetown, South Africa 2008
  “TEE is necessary for cardiac surgery”

- SCA Update in Cardiopulmonary Bypass. Whistler, British Columbia 2008
  “Echocardiographic approaches to grading the severity of TR and RV dysfunction”
  “Testing physiological limits in Antarctica”
  “Thrombocytopenia and heparin: What does it mean?”

Naser, B
- Salmaniya Medical Center, Department of Anesthesia. Manamma, Bahrain 2008
  “Journey of pain, evidence based management of acute pain in children”

- Antonio Lorena Hospital, Department of Anesthesia. Cusco, Peru 2007
  “Acute pain management in pediatrics”
O’Leary, G
- Ontario Hospital Association (OHA) HealthAchieve. Toronto, Ontario 2007
  “Impediments to introduction of anesthesia care teams”
  “NP/Anesthesia and proposed amendments to regulations to health professions in Ontario today”
- Ontario Hospital Association and Ministry of Health and Long-Term Care. Toronto, Ontario 2008
  “Beyond SPAI: What’s new in peri-operative care? Anesthesia care teams – Early learnings, Phase 1
  ACT demonstration sites”

Orser, B
- Canadian Perioperative Anesthesia and Medicine Meeting, McMaster University. Hamilton, Ontario 2008
  “Perioperative cognitive dysfunction”
- University of New Mexico, Department of Neuroscience. Albuquerque, Mexico 2008
  “Anesthetics, memory and GABA-A receptors”
- Alberta Heritage Foundation for Medical Research, Hotchkiss Brain Institute, Visiting Professor. Calgary, Alberta 2008
- University of Calgary, Department of Anesthesia. Calgary, Alberta 2008
  “Memory blockade and anesthesia”
  “Awareness and anesthesia: What you need to know”
- Association of Anesthetists of Ireland and Great Britain. Dublin, Ireland 2007
  “MAC, memory and the mechanisms of anesthesia”
- Sunnybrook Health Sciences Centre Public Speaker Series. Toronto, Ontario 2007
  “Lifting the fog around anesthesia: Myths vs reality”
- International Conference on Neurons and Brain Disease. Toronto, Ontario 2007
  “ Extrasynaptic GABAA receptors and hippocampal-dependent memory”

Peng, P
  “Acute pain symposium: Multi-modal analgesia”
- Annual Conference, Canadian Pain Society. Victoria, British Columbia 2008
  “Update on acute pain management: Controversy on the use of Cox-2 inhibitors in acute pain
  management”
- Fifth Annual International Symposium of Ultrasound for Regional Anesthesia. Toronto, Ontario 2008
  “Pelvic pain block”
  “Pudendal, piriformis and suprascapular nerve block” (Workshop Leader)
  “The pathophysiology and treatment of neuropathic pain”
- First Canadian Interventional Pain Course, Workshop Leader. Montreal, Quebec 2008
  “Ultrasound for pain management”
- Canadian Anesthesiologists’ Society Atlantic Conference. St. John’s, Newfoundland 2007
  “Interventional pain therapy: The indications”
  “The pharmacology treatment of neuropathic pain: Canadian and European guidelines”
Perlas, A
  “Infraclavicular and axillary”
- 14th Annual Regional Anesthesia and Pain Medicine Conference, Continuing Medical Education, University of Toronto, Workshop Leader. Toronto, Ontario 2007
  “Intensive upper limb”

Prabhu, A
- CHUM Notre Dame Combined Grand Rounds. Montreal, Quebec 2008
  “Is there an ideal volatile in neuroanesthesia?”
- Credit Valley Hospital Grand Rounds. Toronto, Ontario 2007
  “Perioperative blood conservation: An update”

Robertson, JM
  “Mysteries of the anesthesia cancellation”

Salman, A
- 5th Annual Mount Sinai Hospital Obstetric Anesthesia Conference. Toronto, Ontario 2007
  “Informing obstetric patients about anesthesia risks: Who, when and how much?”

Siddiqui, N
- Toronto Anesthesia Symposium. Toronto, Ontario 2008
  “Central venous access and epidural ultrasound” (Workshop)

Slinger, P
  “Lung isolation in a patient with a difficult airway”
  “Thoracic epidural analgesia for thoracoabdominal surgery, technique of the past? Con”
- Dannemiller Review Course in Anesthesiology. Chicago, Illinois 2008
  “Preoperative assessment, lung isolation, one-lung ventilation, mediastinal masses, post-thoracotomy analgesia”
- Dannemiller Review Course in Anesthesiology. San Antonio, Texas 2008
  “Preoperative assessment, lung isolation, one-lung ventilation, mediastinal masses, post-thoracotomy analgesia”
- University of Calgary, Department of Anesthesia (Visiting Professor). Calgary, Alberta 2008
- International Anesthesia Research Society Annual Meeting. San Francisco, California 2008
  “The anesthesiologist’s role in perioperative lung protection”
  “Lung isolation; management of one-lung anesthesia; Respiratory physiology”
- Toronto Anesthesia Symposium. Toronto, Ontario 2008
  “Ventilation strategies for the sick lung”
- World Congress of Anaesthesiology, Cape Town, South Africa 2008
  “When do we need lung function tests?”
  “Perioperative lung injury and protection”
  “Management of the ventilated lung during one-lung anesthesia”

- CVT Anaesthesia Seminar. Kapama, South Africa 2008
  “What’s new in thoracic anesthesia?”
  “Lung injury after pulmonary resection”

- Clinical Update in Anesthesiology, Surgery and Perioperative Medicine. Acapulco, Mexico 2008
  “Preoperative assessment for pulmonary resection in the elderly”

- Beth Israel Deaconess Medical Center, Department of Anesthesia, Harvard University Medical School (Visiting Professor). Boston, Massachusetts 2008

- Post Graduate Assembly, NYSSA. New York, New York, 2007
  “Anesthesia for the patient with lung failure”

- Dannemiller Annual Fall Nurse Anesthetist Review. San Antonio, Texas 2007
  “Preoperative assessment”
  “Lung isolation”
  “One-lung ventilation”
  “Post-thoracotomy analgesia”

- Jornadas de Acualualizacion en Anesthesiologica en Cirugia Cardiovascular y Toracica. Barcelona, Spain 2007
  “Low tidal volume one-lung ventilation; lung isolation: State of the art”

  “Anaesthesia for the patient with an anterior mediastinal mass, Double-lumen tube placement”

  “Clinical management of one-lung anaesthesia”

- Chulalongkorn University, Department of Anesthesiology (Visiting Professor). Bangkok, Thailand 2007

- ASEAN Congress of Anesthesiologists. Pattaya, Thailand 2007
  “TEE 101: Anesthesia for minimally invasive thoracic surgery”
  “Post-thoracotomy analgesia”
  “Lung isolation”

- Annual Perioperative Transesophageal Echocardiography Symposium, Toronto General Hospital. Toronto, Ontario 2007
  “TEE unknowns”

  “Bronchial blockers”

- Ontario Medical Association Annual Meeting, Anesthesia Section. Niagara Falls, Ontario 2007
  “Thoracic anesthesia: What’s new and useful?”

  “Ultrasound for vascular access”
**Tumber, P**
- Canadian Interventional Pain Course, Workshop leader. Montreal, Quebec 2008  
  “Sympathetic and visceral procedures”
- Canadian Physiatry Review Course, Rehabilitation Solutions. Toronto, Ontario 2008  
  “Nerve blocks: A brief review”
  “Chronic pain, addiction, and pain management”
- North York General Hospital, Morning Seminar. Toronto, Ontario 2007  
  “Oral patient controlled analgesia”
- Toronto Western Hospital, Department of Anesthesia, QA Dinner Rounds. Toronto, Ontario 2007  
  “Acute pain service quality assurance”

**van der Vyver, M**
- Toronto Anesthesia Practice Meeting. Toronto, Ontario 2007  
  “Anesthesia for the pregnant patient with multiple sclerosis”

**Vegas, A**
- University Health Network, Toronto General Hospital, CVICU Nurses Rounds. Toronto, Ontario 2007  
  “Transesophageal echocardiography”
- University Health Network, Toronto General Hospital, TEE Symposium. Toronto, Ontario 2007  
  Workshop: Hemodynamics, “TEE for prosthetic valve complications”
- Chinese Anesthesiology Meeting. Chongqing, China 2008  
  “Perioperative transesophageal echocardiography”
- Grand Rounds, Chengdu Hospital. Chengdu, China 2008  
  “Training perioperative echocardiography”
- University Health Network, Toronto General Hospital, Echocardiography Rounds. Toronto, Ontario 2008  
  “Echocardiography jeopardy: Interesting cases”
  “Ventricular assist devices”  
  “Role of TEE in hemodynamic instability: An interesting case”

**Wasowicz, M**
- Department of Anesthesia and Critical Care Medicine, University Hospital. Bydgoszcz, Poland 2008  
  “Basic views in transesophageal echocardiography (TEE)”  
  “TEE in ICU settings, its applications and significance”  
  “Heparin induced thrombocytopenia and its importance in anesthesia and critical care”

**Wells, GD**
- St. Michael’s Hospital Cardiology Research Rounds. Podium Presentation. Toronto, Ontario 2007  
  “Magnetic resonance techniques for the assessment of metabolism and vascular reactivity”
- Canadian Cardiovascular Congress, Workshop. Quebec City, Quebec 2007  
  “Cardiovascular screening of Canadian athletes for prevention of sudden death: Review, rationale and recommendations”
  “Reliability and validity of the habitual activity estimation scale (HAES) in patients with cystic fibrosis”
• Conference on Preventing Sudden Cardiac Death in the Young, The Canadian SADS Foundation, The Hospital for Sick Children, Podium Presentation. Toronto, Ontario 2007
  “Cardiovascular screening of young athletes”

Wijeysundera, DN
• University Health Network Nephrology Rounds, Division of Nephrology. Toronto, Ontario 2007
  “Acute kidney injury in cardiac surgery: From risk-prediction to risk-reduction”

• Toronto Anesthesia Symposium 2008, University of Toronto. Toronto, Ontario 2008
  “A rational approach to drug therapies for preventing perioperative cardiac events”

Wong, D
• Primary Care Today. Toronto, Ontario 2008
  “Preoperative evaluations by primary care practitioners: Does it make a difference?”

• University College London Hospital, Preoperative Anesthesia Consult Clinic 2008. London, United Kingdom 2008
  “A Canadian perspective”

• American Society of Anesthesiologists Annual Meeting. San Francisco, California 2007
  “Basic fiberoptic bronchoscopy”

Wong, J
  “Ambulatory anesthesia”

Yao, Z
• Zhengzhou University, Canada-China Academic Exchange. Zhengzhou, China 2007
  “Improve China's residency and clinical fellow training”

• Sichuan University, Canada-China Academic Exchange. Chengdu, China 2008
  “Improve China's residency and clinical fellow training”

You-Ten, E
• Toronto Anesthesia Symposium. Toronto, Ontario 2008
  “Fatty treatment for the heart? Lipid emulsion for bupivacaine toxicity”

• University Health Network, Toronto General Hospital, Toshiba Computer Tomography Research Day. Toronto, Ontario 2007
  “Perioperative cardiac risk stratification-role of the 320-Row multidetector computer tomography in noninvasive imaging of the coronary circulation”
PEER-REVIEWED GRANTS

Angle, P
“Randomized controlled trial examining the impact of large traditional vs small epidural needles on the incidence of postdural puncture headache in parturients” (Principal Investigator)
Physician Services Incorporated Foundation Grant.
$149,500
2007-2008

Awad, I
“Anatomical insertion point: A prospective randomised double-blind controlled trial” (Principal Investigator)
Physician Services Incorporated Grant
$37,000
2008-2009

Baker, AJ
“Biomarkers of neurocognitive impairment in mild concussion” (Principal Investigator)
Department of National Defence: Defence Research and Development Canada
$188,546
2007-2008

“Calpain inhibition as a white matter neuroprotective therapy after TBI: Proof of principle for functional, histopathical and behavioural improvements by targeting white matter following traumatic brain injury” (Principal Investigator)
Ontario Neurotrauma Foundation Personnel and Operating Grant.
$75,000
2006-2007

“Understanding the influence of pain management in the acute care of traumatic injury and its role in patients’ health outcomes: Development of a multi-disciplinary research team” (Co-Investigator)
Canadian Institutes of Health Research.
$99,652
2006-2007

“From bench to bedside to curbside” (Co-Investigator)
Department of Health and Human Services, Public Health Service Personnel and Operating Grant
$1,193,230
2004-2009

Balki, M
“Optimizing contractility in human myometrium previously exposed to oxytocin: An in-vitro approach to improving treatment options for primary post-partum hemorrhage in labouring women” (Principal Investigator)
Canadian Anesthesiologists’ Society Research Grant
$30,000
2008-2009

Beattie, S
“To formulate an automated prognostic indication tool based on preoperative and intra operative data” (Principal Investigator)
National Research Council (NRC)Industrial Research Assistance Program
$300,000
2008-2009
“Validation and safety and efficacy of an electronic pre-op assessment system at university health network”
(Principal Investigator)
Health Technology Exchange (HTX) Ontario Ministry of Industry
$125,000
2007-2009

“Addition of clonidine to chronic β-blockers reduces postoperative cardiac morbidity”
(Co-Investigator)
Heart and Stroke Foundation (HSF) EPIC Study
$180,000
2007-2009

**Brull, R**
“Can ultrasound-detected intraneural injection predict nerve injury?”
(Principal Investigator)
Canadian Anesthesiologists’ Society, Baxter Corporation Canadian Research Award in Anesthesia
$20,000
2007-2008

“Nerve damage following ultrasound-guided intraneural injection”
(Principal Investigator)
American Society of Regional Anesthesia and Pain Medicine, Carl Koller Memorial Research Grant
$10,000
2007-2008

**Campbell, F**
“CIHR team in children’s pain”
(Co-Investigator & Site-Investigator)
CIHR Team Grant Program
$4,054,611
2006-2011

“Translating research on pain in children (TROPIC) study”
(Co-Applicant & Site Investigator)
CIHR Operating Grant
$1,587,782
2008-2012

**Chan, V**
“Postoperative epidural analgesia after minimally invasive lumbar decompression and fusion”
(Co-Investigator)
Physicians Services Incorporated Foundation, Ontario, Canada.
$19,500
2008

**Chung, F**
“Screening for obstructive sleep apnea in surgical patients in the preoperative clinic” - A prospective study
Physicians Services Incorporated Foundation
$60,500
2007-2008

**Cox, P**
“Optimization of exogenous lung surfactant”
(Co-Investigator)
CIHR
$1,031,290
2000-2009
Djaiani, G
“A phase II study designed to evaluate the safety, tolerability, and effect of a single dose of AL-208 on mild cognitive impairment following CABG surgery”
(Principal Investigator)
Allon Therapeutics
$80,000
2007-2008

El-Beheiry, H
(Co-Investigator)
“Hypoglycemic seizures: Mechanisms and role in hypoglycemic brain damage”
Juvenile Diabetes Research Foundation, USA
$327,620 (US)
2007-2008

Fisher, JA
“Sight-threatening retinal complications in type 2 diabetes”
(Co-Investigator)
Canadian Institutes of Health Research
$434,620
2005-2010

“Multi-modal imaging studies of the relationship between age, physical activity level, cerebral physiology, and cognitive performance”
(Co-Investigator)
Canadian Institutes of Health Research
$401,488
2007-2011

Friedman, Z
“Fidelity of simulation models: Impact on transfer of manual skills to cadavers”
(Principal Investigator)
Royal College of Physicians and Surgeons of Canada Medical Education Research Grant
$19,250
2008-2009

“Evaluation of an anatomically guided, logically formulated airway measure to predict difficult intubations”
(Principal Investigator)
First grant awarded by the APSF to a non-US researcher
Anesthesia Patient Safety Foundation, American Society of Anesthesiologists
$45,730
2008-2010

“The Imperial College Surgical Assessment Device (ICSAD) for the assessment of technical skill in epidurals for labour analgesia: The effect of sleep deprivation”
(Principal Investigator)
Royal College of Physicians and Surgeons of Canada - Medical Education Research Grant
$18,050
2008-2009

“Acceleration of recovery from general anesthesia - Efficacy of isocapnic hyperpnoea in obese patients undergoing isoflurane anesthesia”
(Co-Investigator)
Physicians Services Incorporated Foundation
$28,500
2008-2010
**Gagliese, L**

“The nerve of osteoarthritis pain”  
(Co-Investigator)  
*Canadian Arthritis Network*  
$49,709  
2008-2009

“Aging and pain following breast cancer surgery”  
(Principal Investigator)  
*Canadian Institutes of Health Research Operating Grant* (5 years)  
$633,470  
2007-2012

“A prospective study of psychosocial distress and palliative care in patients with hematologic malignancies”  
(Co-Investigator)  
*Canadian Institutes of Health Research Operating Grant* (5 years)  
$644,687  
2007-2012

“Age-related patterns in pain following breast cancer surgery”  
(Principal Investigator)  
*Canadian Breast Cancer Research Alliance Operating Grant* (5 years)  
$747,485  
2007-2012

“How does learning about the RNAO BPG for the assessment and management of pain influence provider’s treatment pain management decisions as they pertain to the elderly hip fracture patients in the last 24 hours of acute care and first 24 hours of rehabilitation?”  
(Co-Investigator)  
*Canadian Nursing Foundation Operating Grant*  
$59,766  
2007

“The quality of death in metastatic cancer and its relationship to antecedent factors and primary caregiver morbidity”  
(Co-Investigator)  
*Canadian Institutes of Health Research Operating Grant* (5 years)  
$509,303  
2005-2010

“Age differences in cancer pain”  
(Principal Investigator)  
*Canadian Institutes of Health Research Operating Grant* (5 years)  
$329,937  
2003-2008

“Effects of NMDA-receptor antagonism on hyperalgesia, opioid use and pain after major surgery in young and elderly patients”  
(Principal Investigator)  
*Canadian Institutes of Health Research Clinical Trial* (3 years)  
$359,546  
2002-2005

“Effects of NMDA-receptor antagonism on hyperalgesia, opioid use and pain after major surgery in young and elderly patients”  
(Principal Investigator)  
*Canadian Institutes of Health Research New Investigator Award*  
$290,000  
2003-2010
Hare, GMT  
“Mechanisms by which beta-1 adrenergic blockade increases mortality following acute hemodilution in rats”  
(Principal Investigator)  
The Physicians’ Services Incorporated Foundation  
$161,000  
2007-2009

“The threshold hematocrit for cerebral hypoxia is maintained by protective cardiovascular mechanisms: The role for neuronal nitric oxide synthase (nNOS)”  
(Principal Investigator)  
The Society of Cardiovascular Anesthesiologists  
US $20,000  
2007-2008

“Does Beta-1 adrenergic antagaranism increase tissue hypoxia following acute hemodilution?”  
(Principal Investigator)  
Canadian Anesthesiologists’ Society Wynands Research Award  
$30,000  
2007-2008

“Mechanisms of cerebral protection and injury during acute hemodilutional anemia”  
Bristol-Myers Squibb-CAS Career Scientist Award in Anesthesia and Peri-operative Medicine.  
$270,000  
2005-2008

Jadad, A  
“Health care, technology, and place”  
(Co-Principal Investigator)  
Canadian Institutes of Health Research Training Grant (5 years).  
$5,000,000  
2002-2007

“An integrated training program in health and social science research to improve the health of marginalized populations”  
(Co-Principal Investigator)  
Canadian Institutes of Health Research (5 years).  
$5,000,000  
2003-2008

“Information and communication technology platform for public engagement to optimize Canadian innovation”  
(Principal Investigator)  
Canada Foundation for Innovation and Ontario Innovation Trust (4 years)  
$1,250,000,  
2003-2007

“eToolkits: Internet-based tools for the improvement of cancer pain management worldwide”  
(Principal Investigator)  
Purdue Pharma and affiliated companies (3 years).  
US $190,000  
2004-2007

“A study to assess the utility of a Canadian web-based research ethics board (REB), protocol and consent”  
(Co-Principal Investigator)  
Canadian Institutes for Health Research (3 years).  
$115,630  
2004-2007
“To your good health”  
(Co-Principal Investigator)  
*The Agricultural Adaptation Council of Canada* (2 years)  
$1,082,494  
2005-2007

“ELLICSR: The electronic living laboratory for interdisciplinary cancer survivorship. Research: Bridging the gap for chronic cancer care”  
(Co-Principal Investigator)  
*Canadian Foundation for Innovation*  
$3,300,000  
2006-2008

“The impact of web 2.0 on credibility indicators in health care”  
(Co-Principal Investigator)  
*CIHR Interdisciplinary Capacity Enhancement Sub-Grant*  
$8000  
2007

“Ethics and pandemic planning: Engaging the voices of the public”  
(Co-Investigator)  
*Canadian Institutes of Health Research*  
$75,000  
2007

“Journey to our good health: A youth leadership program to promote healthy eating living in the age of the Internet”  
(Principal Investigator)  
*Rural Economic Development Fund, Ontario Ministry of Agriculture and Agricultural Adaptation Council of Canada*  
$124,000  
2007

“Centre for innovation on human wellbeing [Malaga]”  
(Principal Investigator)  
*Ministry of Education of Spain and the Fund Regional Development of the European Union* (2 years).  
€ 15,000,000 ($22,000,000)  
2007

“Youth leadership for the transformation of agri-food systems to create a legacy of good health”  
(Principal Investigator)  
*Agricultural Adaptation Council of Canada* (3 years)  
$2,260,000  
2008-2011

“Canadian program of research on ethics in a pandemic (CanPREP): Whose risks, whose duties, and what priorities?”  
(Co-Principal Investigator)  
*Canadian Institutes for Health Research* (3 years)  
$1,499,439  
2008-2011

**Karkouti, K**  
“Efficacy of autologous predonation of blood: A double-blinded, randomized controlled clinical trial”  
*Novo Nordisk Canada/CAS Research Award in Perioperative Hemorrhage, Hemostasis, and/or Transfusion*  
(Principal Investigator)  
$40,000  
2008-2009
Bristol-Myers Squibb Canada/Canadian Anesthesiologists' Society Career Scientist Award in Anesthesia and Peri-operative Medicine  
(Principal Investigator)  
$270,000  
2007-2010

Katz, J  
“The SCI-Impact team”  
(Collaborator)  
Ontario Neurotrauma Foundation (ONF) and the Réseau Provincial de Recherche en Adaptation-Readaptation (REPAR) (3 years)  
$120,000  
2008-2011

“Novel tools to evaluate somatosensory processing in people with pain after spinal cord injury”  
(Co-Investigator)  
NSERC (Collaborative Health Research Projects)  
$296,386  
2008-2011

“Understanding the co-occurrence of PTSD and chronic musculoskeletal pain: Do traumatic experiences alter perception and processing of pain stimuli?”  
(Collaborator)  
Canadian Institutes of Health Research Operating Grant (3 years)  
$129,000  
2008-2011

“Mentoring and strength in impoverished young men”  
(Co-Applicant)  
Canadian Institutes for Health Research (3 years)  
$100,000  
2008-2011

“Chronic pain and fractures after Spinal Cord Injury (SCI) - Impact on cost of care and quality of life”  
(Co-Investigator)  
Physicians' Services Incorporated Foundation (2 years)  
$162,000  
2008-2010

“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”  
(Co-Investigator)  
Pfizer Neuropathic Pain Award Competition, Pfizer Canada  
$143,600  
2008-2010

“Biomedical and psychosocial factors associated with pain and disability after peripheral nerve injury”  
(Co-Applicant)  
American Association for Hand Surgery  
$5,000  
2008-2009

“Does optimal control of chronic and acute pain predict improved function after total hip arthroplasty?”  
(Co-Investigator)  
Physicians Services Incorporated Foundation  
$103,000  
2008-2009
Katznelson, R
“The efficacy of isocapnic hyperpnoea to accelerate recovery after general anesthesia with isoflurane in obese patients”  
(Co-Principal Investigator)  
Physicians Services Incorporated Foundation (PSI)  
Funding Amount: $28,400  
2008-2010

Kavanagh, BP
“Preclinical assessment of therapeutic hypercapnia”  
Sole Applicant  
Canadian Institutes of Health Research Operating Grant (Renewal)  
$535,000  
2004-2009

“Lung development”  
(Co-Applicant)  
Canadian Institutes of Health Research (Group Grant)  
$1,260,000  
2004-2009

“Ventilator-induced lung injury: Linking gene activation, physiology and outcome”  
(Principal Applicant)  
Canadian Institutes of Health Research (Interim Operating Grant)  
$100,000  
2007-2008

“Therapeutic potential of hepxolin analogues”  
(Co-Principal Applicant)  
Canadian Institutes of Health Research Operating Grant.  
$620,000  
2008-2013

“Ventilator-induced lung injury: Linking gene activation, physiology and outcome”  
(Principal Applicant)  
Canadian Institutes of Health Research Operating Grant  
$690,000  
2007-2012

Mazer, CD
“Genetic biomarkers of renal injury after cardiopulmonary bypass and anemia in the rat”  
(Co-Investigator)  
PSI Foundation  
$19,500  
2007-2008

“Sternal closure stability using the sternal fixation system”  
(Co-Principal Investigator)  
AO Research Fund  
$52,098 (54,555 Swiss Francs)  
2007-2008

“Clinical outcomes and predictors of prolonged length of stay in the intensive care unit after cardiac surgery” - Analysis from the multicenter EPI 2 study  
IREF  
US $40,000  
2006-2008
“Does nutrient supplementation influence cardiac function, structure and survival by altering energy metabolism?”
(Co-Investigator)
Canadian Institutes of Health Research
$155,800
2005-2007

“Blood conservation using antifibrinolytics: A randomized trial in a cardiac surgery population” - The BART study
(Co-Investigator)
Canadian Institutes of Health Research
$53,087
2002-2007

“High fidelity simulation versus traditional didactic seminars for teaching trainees separation from cardiopulmonary bypass”
(Co-Investigator)
Physicians’ Services Inc.
$117,738
2006-2008

“Computer program to evaluate patients with emergencies in the fluid, electrolyte and acid-base area”
(Co-Investigator)
Keenan Collaborative Research Award, St. Michael’s Hospital
$25,000
2006-2007

“Renal gene expression following cardiopulmonary bypass and anemia in the rat”
(Supervisor/Co-Investigator)
Canadian Anesthesiologists Society
$5,000
2006-2007

“Unraveling the black box of adverse events in cardiac surgery”
(Co-Investigator)
Heart and Stroke Foundation of Ontario
$271,050
2006-2009

“Transfusion triggers in cardiac surgery”
(Co-Investigator)
Canadian Blood Services, Small Projects Fund.
$14,990
2006-2007

“Impact of cardiopulmonary bypass and cardiac surgery on lymphocyte energetics and immune function in patients with non insulin dependent diabetes mellitus”
(Co-Investigator)
Society of Cardiovascular Anesthesiologists.
US $40,000
2005-2007

McCartney, C
“Does a low volume ultrasound-guided technique reduce common complications of interscalene brachial plexus block?”
(Principal Investigator)
Physicians Services Incorporated Foundation
$19,000
2007-2008
“Role of low fidelity ultrasound training on skills acquisition in Anesthesia residency training”
(Co-Investigator)
*University of Toronto Deans Fund Award.*
$9,240
2007

“The short- and long-term effects of perioperative gabapentin use on functional, rehabilitation and pain outcomes following total knee arthroplasty: A randomized, double-blind, placebo-controlled trial”
(Co-Investigator)
*Smiths Medical Canada Ltd. Canadian Research Award in Pain Research and/or Regional Anesthesia* $10,000
2007

“Can ultrasound predict intravascular injection of local anesthetic?”
(Principal Investigator)
*Sunnybrook Research Institute Summer Studentship Award*
$1,600
2007

“Optimizing functional outcome following hip and knee arthroplasty”
(Principal Applicant)
*Charles Wright Award, Sunnybrook Health Sciences Centre*
$2,000
2007

**McGrath, PA**
“Understanding chronic pain following surgery in women”
(Co-Investigator)
*Canadian Institutes of Health Research Operating Grant*
$342,029
2006-2009

“Gender differences in child development: Vulnerability to chronic pain”
(Principal Investigator)
*Canadian Institutes of Health Research-New Emerging Team Initiative*
$1,500,000
2003-2008

**Meineri, M**
“Development of a simulation of weaning from cardiopulmonary bypass (SIMWIN)”
(Principal Investigator)
*University of Toronto, Instructional Technology Courseware Development Fund*
$12,500
2008-2009

**Morgan, P**
“Determination of the psychometric properties of a behavioural marking system for obstetrical team training using high-fidelity simulation”
(Co-Principal investigator)
*Canadian Patient Safety Institute*
$119,340
2007-2008

“Faculty development for simulation for clinical teaching and learning”
(Co-Investigator)
*Network of Excellence in Simulation for Clinical Teaching and Learning*
$83,990
2008
“The effect of high-fidelity simulation debriefing on the non-technical skills of practicing anesthetists”
(Principal Investigator)
Continuing Education Research Award, University of Toronto
$5,000
2007

“The effect of high-fidelity simulation debriefing on the non-technical skills of practicing anesthetists”
(Principal investigator)
SHUTC Academic Trust Fund
$5,000
2007

Naik, VN
“The effect of sleep deprivation on labor epidural placement in trainees”
(Co-Principal Investigator)
Royal College of Physicians and Surgeons Canada
$19,600
2008.

“Improving teaching of basic life support: A randomized pilot study of real time feedback in CPR performance”
(Co-Investigator)
Heart and Stroke Foundation of Ontario
$50,000
2008

“Impact of a Structured Training and Assessment Curriculum (STAC) on skill acquisition in minimally invasive surgery”
(Co-Investigator)
Network of Excellence in Simulation for Clinical Teaching, University of Toronto
$50,000
2008

“Sleepiness and sleep deprivation in anesthesia residents: A national survey”
(Co-Principal Investigator)
Education Development Fund for Innovation in Medical Education
$3,900
2008

“Impact of high-fidelity patient simulator-based education on the acquisition of non-technical skills during the management of a life threatening airway crisis”
(Co-Investigator)
Education Development Fund for Innovation in Medical Education
$9,480
2008

Orser, B
“Tonic GABAergic regulation of memory and plasticity”
(Principal Investigator)
Canadian Institutes of Health Research (5 years)
$826,305
2008-2013

“The role of GABA$_A$ receptors in anesthetic-induced impairment of memory and consciousness”
(Principal Investigator)
Canadian Institutes of Health Research.
$595,895
2006-2011
“Anesthetic drugs from molecular mechanisms to patient safety”
(Principal Investigator)
Canada Research Chair in Anesthesia, Tier 2
$500,000
2003-2008

“A multi-institutional evaluation of a checklist intervention to structure communication and promote patient safety in the operating room”
(Collaborator)
Canadian Institutes of Health Research
$436,651
2002-2010

“Synaptic and extrasynaptic GABA_A receptors: Distinct physiological and therapeutic roles”
(Principal Investigator)
Canadian Institutes of Health Research
$640,800
2003-2008

Safa, B
“A prospective, unicenter, randomized, placebo controlled, clinical interventional trial, comparing the postoperative functional recovery as well as analgesic efficacy of a single shot sciatic nerve block versus posterior capsule/fat pad infiltration of local anesthetic for total knee arthroplasty”
(Principal Investigator)
Physicians Services Incorporated Foundation
$50,000
2008-2010

Tait, G
“Development of a simulation of weaning patients from cardiopulmonary bypass”
(Co-Investigator)
The Instructional Technology Courseware Development Fund, University of Toronto
$25,000
2008-2009

“Virtual ventilation: The development of a simulation of patients requiring respiratory support with mechanical ventilation”
(Co-Investigator)
The Instructional Technology Courseware Development Fund, University of Toronto
$25,000
2008-2009

Vegas, A
“3D imaging tool for transesophageal echocardiography”
(Principal Investigator)
Instructional Technology Courseware Development Fund, University of Toronto
$12,500
2007-2008

Wijeyesundera, D
“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”
(Principal Investigator)
Heart and Stroke Foundation of Ontario
$169,128
2007-2009
"Practice patterns and effectiveness of preoperative internal medicine consultation prior to non-cardiac surgery in Ontario"
(Principal Investigator)
*Canadian Institutes of Health Research Clinician Scientist Award – Phase 1*
$172,500
2006-2009

"Is preoperative evaluation an opportunity to address the evidence-to-care gap in cardiovascular disease?"
(Principal Investigator)
*Heart and Stroke Foundation of Ontario, 2007 Rick Gallop Award Recognizing Research Excellence*
$50,000
2007

**Wong, J**
“Efficacy of intraoperative topical application of tranexamic acid in reducing perioperative bleeding in total knee arthroplasty”
(Principal Investigator)
*Physicians Services Incorporated Foundation*
$58,250
2007-2008

**Zhang, H**
“Critical role of bone marrow-derived mesenchymal stem cells in the repair of lung injury”
(Principal Investigator)
*Ontario Thoracic Society (OTS) Research-in-Aid Grant*
$50,000
2007-2008

“LPS internalization and ICAM-1 signaling in the pathogenesis of sepsis”
(Principal Investigator)
*Canadian Institutes for Health Research Operating Grant*
$530,600
2005-2010

“Targeting ICAM-1/LFA-1 interaction in reducing sepsis-induced lung injury”
(Principal Investigator)
*Premier’s Research Excellence Award*
$159,000
2005-2010

“Human neutrophil peptides in lung inflammation”
(Principal Investigator)
*Canadian Institutes for Health Research New Investigator Award*
$275,000
2005-2010

“Human neutrophil peptides in lung inflammation”
(Principal Investigator)
*Canadian Institutes for Health Research Operating Grant*
$553,615
2004-2009
NON PEER-REVIEWED GRANTS

Chung, F
“A randomized double-blind active and placebo-controlled study of single dose oral Rolapitant monotherapy for the prevention of postoperative nausea and vomiting”
(Principal Investigator)
Schering Plough
$150,000
2007-2008

“A prospective matched care control observation study on postop oxygen desaturation among the patients with diagnosed (OSA) Obstructive Sleep Apnea and the patients identified as high risk of Obstructive Sleep Apnea by questionnaire”
(Principal Investigator)
Respironic Foundation
$86,000
2007-2008

Resmed Foundation
$76,000
2007-2008

Karkouti, K
“Investigating the relationship between factor XIII levels and blood loss in cardiac surgery - A multi-centre, prospective, observational study”
(Principal Investigator)
Novo-Nordisk
$182,000
2008-2010

You-Ten, E
“Impact of high-fidelity patient simulator-based education on the acquisition of non-technical skills during the management of a life threatening airway crisis”
(Principal Investigator)
Education Development Fund for Innovation in Education, University of Toronto
$9,480
2008-2009

“Non-invasive cardiothoracic impedance during pregnancy”
(Principal Investigator)
PhysioFlow
$10,000
2008-2009