# TABLE OF CONTENTS

**REPORT FROM THE CHAIR** .............................................. 1  
**UNDERGRADUATE EDUCATION** ................................. 3  
**POSTGRADUATE EDUCATION** ................................. 5  
**SKILLS AND SIMULATION CENTRE** ....................... 7  
**RESEARCH REPORT** .............................................. 11  
**PERIOPERATIVE QUALITY IMPROVEMENT** ............... 17  
**SURGICAL ONCOLOGY PROGRAM** ......................... 23  

**DIVISIONAL REPORTS** ........................................... 31  
» Division of Cardiac Surgery ..................................... 32  
» Division of General Surgery .................................. 41  
» Division of Neurosurgery ...................................... 56  
» Division of Oral & Maxillofacial Surgery ................. 66  
» Division of Orthopaedic Surgery ......................... 68  
» Division of Plastic Surgery .................................. 81  
» Division of Thoracic Surgery ................................. 84  
» Division of Urology ............................................ 89  
» Division of Vascular Surgery ................................. 97  

**DEPARTMENT OF SURGERY: CHEO** .......................... 103  
» Childrens’ Hospital of Eastern Ontario ........................ 104
It is both a pleasure and an honour to submit this foreword to the Annual Report of the Department of Surgery for academic year 2014–2015. The dedicated faculty, residents and fellows of our department work tirelessly in the pursuit of excellence in the three spheres of our efforts as academic surgeons, namely clinical care, education and research. Our department is indeed strong, and this in turn reflects the strength in leadership of each of our surgical divisions.

The 2014–15 academic year was very positive for the Department of Surgery in several respects. Firstly, after establishing considerable traction with the implementation of several CUSP teams for surgical quality improvement (particularly regarding surgical site infections), 2015 was a “breakthrough” year and demonstrated a very promising trend in reduction in crude and risk-adjusted SSI rates. This will be elaborated upon in the section authored by Dr. Schramm. Secondly, in education, there was an unprecedented level of surgical activity in the uO Skills and Simulation Centre; and a significant expansion of the very successful SEAD [Surgical Exploration and Discovery] program for undergraduates. Thirdly, there was prolific research activity across the department, with the largest ever number of submissions for Collins Day; and the awarding of the first ever Clinical Research Chair from the Faculty of Medicine to a leading member of our department, Dr. Rebecca Auer.

Transparency and accountability is the “theme of our times”. The Ottawa Hospital Academic Medical Organization [TOHAMO] is implementing a new largely metric-based system of allocation of alternate funding plan dollars to the clinical departments. The Department of Surgery is not immune to this trend, and transparency/accountability will dominate our decision-making as we chart our course into the future.
We will continue to face a number of significant challenges in the upcoming academic year 2015–16. We seek a greater degree of unification as a department. We must continue our pursuit of excellence in all spheres in spite of financially challenging times. Our residency training programs will be subject to the major six-yearly Royal College accreditation visit later in 2016.

This year’s annual report is intended to provide a more abbreviated summary of departmental activities and progress. The following sections have been thoughtfully prepared and submitted by the outstanding leadership of our department, to showcase our many exciting accomplishments.

Respectfully,

Sudhir Sundaresan
UNDERGRADUATE EDUCATION

Successes:

1. Surgery Preparation (Bootcamp) Week has completed its second year with great collaboration and input from all divisions within the department. It was an overwhelming success with regards to students’ satisfaction, learning and preparation level prior to starting surgical clerkship. Students’ evaluations and exam performances were also very good. For 2015–16: incorporation of Trauma Evaluation and Management to the preparatory week.

2. The Surgical Exploration and Discovery (SEAD) program completed its second iteration in June 2015; it remains a great example of departmental collaboration and leadership in the introduction and potential recruitment of future surgical candidates. Feedback has been stellar and we would anticipate that this initiative would continue to be an annual program offered to first and second year medical students with potential expansion to the provincial/national levels.

3. Teaching faculty and residents are enthusiastically committed to the education of the students and have responded positively to the faculty’s requirements.

4. Overall satisfaction has been consistent and most students have a positive rotation.

5. The Faculty of Medicine has released the performance profile of University of Ottawa students on the surgery component of the MCCQE Part 1 Exam over the last 5 years: the results have consistently and statistically improved. Students are no longer below the national average but actually trending upwards.

<table>
<thead>
<tr>
<th>EXAMINATION DATE</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatrics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differential:</td>
<td>-27*</td>
<td>-25</td>
<td>-2</td>
<td>+12</td>
<td></td>
<td>Significant Improvement</td>
</tr>
<tr>
<td>Psychiatry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differential:</td>
<td>-8</td>
<td>-13</td>
<td>+8</td>
<td>+8</td>
<td>+4</td>
<td>Positive Trend</td>
</tr>
<tr>
<td>Surgery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differential:</td>
<td>-21*</td>
<td>-30*</td>
<td>-5</td>
<td>0</td>
<td>+1</td>
<td>Significant Improvement</td>
</tr>
<tr>
<td>Family Medicine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differential:</td>
<td>-22*</td>
<td>-19*</td>
<td>-4</td>
<td>+2</td>
<td>+1</td>
<td>Significant Improvement</td>
</tr>
</tbody>
</table>

* significant difference
**Long term goals remain largely unchanged:**

1. Refinement of surgery preparation week with regards to creation and expansion of Quizzes Database.
2. Progressive integration of longitudinal curriculum elements into the surgery undergraduate curriculum in preparation for an eventual transition towards longitudinal medical curriculum and competency based medical training.
3. Assessment of competency based surgery undergraduate education model.
4. Evaluation and potential integration of tasks with Postgraduate Surgery Education.
5. Publication and dissemination of our experience with surgery bootcamp.

Respectfully submitted,

**Khan Lam**  
Director, Surgery Undergraduate Education
POSTGRADUATE EDUCATION

POSTGRADUATE EDUCATION COMMITTEE
DEPARTMENT OF SURGERY

» Dr. Stuart Oake
  Chair
» Dr. Shaheer Tadros
  General Surgery
» Dr. Joel Werier
  Orthopaedics
» Dr. Jim Watterson
  Urology
» Dr. Daniel Peters
  Plastic Surgery
» Dr. Husein Moloo
  Colorectal Surgery
» Dr. James Villeneuve
  Thoracic Surgery
» Dr. Dalibor Kubelik
  Vascular Surgery
» Dr. Kyle Cowan
  Pediatric General Surgery
» Dr. Rick Moulton
  Neurosurgery
» Dr. Fraser Rubens
  Cardiac Surgery
» Dr. Yvonne Ying
  Surgical Foundations

During 2014–2015 the Department of Surgery oversaw the education of 125 residents and 22 fellows. The Office of Education continues to be successful in the phased-in implementation plan that was initiated 18 months ago. All divisions within the office have moved forward to a hybrid model that includes specific programmatic representation and task-based job descriptions. There continues to be a Program Administrator assigned to individual programs, now in combination with individuals who have task-based job descriptions. In this regard, the office personnel are as follows:

» Karen Hall: Office Manager, overseeing day to day operations and educational initiatives.
» Christine Seabrook: Educational Initiative Coordinator.
» Johanne Samson: Program Administrator—Ortho, Plastic and Reconstructive, Vascular
» Bonnie Quast: Program Administrator—Neuro, Urology, Thoracic
» Katie Condon: Program Administrator—General, Cardiac, Colorectal
» Nadia Campolo: Education Coordinator—Rotations scheduling leave requests, electives
» Laura Gerridzen: Education Coordinator—Surgical Foundations-skills labs
» James Doucet: Education Coordinator—Academic scheduling, journal clubs, rounds
In the spirit of divisional educational commonality and the sharing of best practices, the following are a list of postgraduate educational accomplishments:

» Academic half-day guidelines
» Centralized off-site rotations
» Increased FMG funding
» Development of CanMEDS evaluation tools
» Centralization of common day-to-day programmatic initiatives
» Preparation for Competency by Design training

The vision of the Office of Education/ Postgraduate education is “To be recognized nationally as leaders of excellence in surgical education”. A logo has been developed, as below:

The Department of Surgery Office of Education continues to foster collaboration with the Departmental Research Committee. The Office has become actively involved in the planning of Collins Research Day, as well as the graduation dinner to congratulate our trainees. Christine Seabrook became a member of the Research Committee as well to support the role of education research, along with Dr. Wade Gofton (Lead, Education Research) in the department.

The Office continues to work toward developing program-wide educational initiatives that support education and training. This year, an online assessment platform was developed, based on the Ottawa Surgical Competency Operating Room Evaluation assessment tool. Drs. Wade Gofton, James Watterson and Matthew Roberts as well as Christine Seabrook led this initiative within the department and met regularly with the University of Ottawa technical staff to develop the in-house platform. The goal will be to facilitate competency-based assessment of residents’ operative ability. The platform will be rolled out across the Office over the next year.

The Office also continues to work toward implementing program-wide CanMEDS teaching strategies. This year, the first multi-program, non-medical expert academic session was integrated across four surgical programs (Neurosurgery, Orthopaedic Surgery, General Surgery and Urology). This initiative marks the first effort of the Office trying to encourage both the education and assessment of non-medical expert CanMEDS roles in surgery.

2015–2016 will bring us to the Royal College External Accreditation Review. The Office of Education is in the process of planning a retreat in order to develop a 5-year strategic plan along with preparation for the 2016 external review.

Respectfully submitted,

J. Stuart Oake
Chair, Postgraduate Education Committee, Department of Surgery
The University of Ottawa Skills and Simulation Center (uOSSC) continues to provide an essential venue for the education of students, residents and surgeons in Ottawa. The strong partnership that has developed between the center and the Department of Surgery that began with its inception in 2010 continues to grow.

For the academic year 2014–2015 the Department of Surgery continued to take full advantage of educational opportunities available at the uOSSC and once again proved to be the center’s most significant user (see pie chart below).
Some of the Department of Surgery highlights from this past academic year include the following:

**MEDICAL STUDENTS**

Surgical Bootcamp for all 3rd year medical students had its inaugural year in 2013-2014 and continued to flourish this past year with eight sessions of lectures and hands-on technical skills put on by our faculty. 165 students enthusiastically learned to suture, place chest tubes, carry-out basic laparoscopic skills and more.

The Surgical Exploration and Discovery (SEAD) program was also back in full force this year with 30 first year medical students participating; double the number of last year. The program consists of two weeks of dedicated exposure to various surgical specialties through operating room observerships and hands on technical skills sessions put on by faculty and residents from each specialty. The goal being to improve medical student exposure to surgery and help with the challenging task of making career decisions in third year medical school.

Additions to the program this past year included participation in the Trauma Evaluation and Management course as well as community surgery observerships at the Queensway-Carleton Hospital.
RESIDENTS

Surgical residents participate in activities at the Skills Centre with individual specialty-related academic half-days, as well as the Surgical Foundation’s program (65 residents) on a weekly basis.

The Cardiac and Vascular Surgery training programs hosted an Ottawa based bootcamp for their 1st and 2nd year surgical residents. The week-long camp featured technical skills sessions on vascular anastomosis, basic suturing, and arterial dissection with a cadaver lab.

The Office of Education facilitated an inter-disciplinary, CanMEDS-based simulation session entitled ‘breaking bad news-disclosing adverse events.’ Organized by Dr. Fraser Rubens, the sessions included resident participants from 4 surgical programs and assessed their ability to disclose real-life adverse outcomes to standardized patients. The residents were assessed by a variety of healthcare professionals including staff surgeons, social workers, nurses and members of the Patient Advocacy office at both The Ottawa Hospital and the University of Ottawa Heart Institute.

This year also saw an increase in programs partaking in interdisciplinary simulation across medical specialties. General Surgery, Urology and Vascular Surgery participated in simulation sessions with anesthesia residents. Scenarios were meant to assess teamwork and crisis resource management in the operating room.
CPD

The Skills center featured several continuing professional development events. Orthopaedic surgery led the way honing the skills of practising surgeons with the following: The Knee Symposium which hosted 60 participants across 2 days, The Stryker Spine Lab with 40 participants each working through 4 cadaver stations, The Shoulder Course hosting 60 participants and 5 industry partners, and the 11th annual Hip Symposium, hosting 80 participants and 5 industry partners.

Other CPD sessions included the The Vantage Lab which hosted 10 participants from Surgery and GI performing 3 procedures: POEM (Peroral Endoscopic Myotomy), ESD (Endoscopic Submucosal Dissection) and RFA (Radiofrequency ablation).

SPECIAL THANKS

A special thanks goes out to all the Surgical Faculty who year after year can be counted upon to provide outstanding educational activities for our learners at the University of Ottawa Skills and Simulation Center.

Respectfully submitted,

Tim Brandys
Surgical Lead, University of Ottawa Skills and Simulation Centre
The University of Ottawa Department of Surgery had a superb academic year of research activity and accomplishments, which is outlined briefly herein. First, the residents are to be congratulated on a record breaking Collins Day 2015. In the past year, a record three staff surgeons have been awarded new funded Surgical Research Chairs. Starting in 2015, the Department of Surgery invested in a program of quality improvement research in alignment with The Ottawa Hospital’s vision and its academic and clinical objectives. New this year, new positions for Directors of clinical, translational and educational research were created, which has been a step forward for departmental research organization, to try to build connectivity between divisions and their research programs. In the future, our aim is to augment research programs within all divisions within the department. The following brief report summarizes these highlights of the 2014–2015 academic year of research in University of Ottawa Department of Surgery.

The 32nd Collins Surgical Day was held Friday, May 8, 2015. Collins Day is an annual event that began over three decades ago in 1979. In 1984, it was named in honour of Dr. W.E. Collins, Emeritus Professor of Surgery and the first Coordinator of the Surgical Training programs at the University of Ottawa (1976–1984). It is the premiere departmental celebration annually, principally because it is a celebration of our residents. The residents of all divisions submitted a record breaking 73 abstracts, 58 of which were presented as posters, and 15 as presentations. The quality of the studies, posters and presentations, the engagement and the passion regarding projects was truly remarkable. While almost an adage, the quality of the research just gets better every year.

The Collins Day reception and dinner were held this year for the second time at the Chateau Laurier. The venue allowed 118 residents, staff, spouses and others to attend and enjoy the evening. The recognition of the graduating residents and fellows, and the recognition of the research and education contributions of the residents and staff together are the focal points of the evening. In addition to recognizing each graduating resident, the best resident research prizes in translational, educational and clinical research and best resident teacher award were presented (see below). In addition, two staff surgeons were recognized as best staff surgeon teacher. See below for list of all Collins Day 2015 awardees. This year, a very special recognition of Dr. Jim Watters, who built the culture of surgical research in the Department of Surgery, serving as Director of Research for a remarkable two decades. Thank you to Dr. Watters for his outstanding contribution to the academic growth of a surgical department, for his passion for surgical research, in particular resident research, and for his charismatic coordination of so many years of Collins Day celebrations.

Our visiting professor for Collins Day 2015 was Dr. J. Curtis Nickel, Professor and Canada Research Chair in Urologic Pain and Inflammation at Queen’s University. He was a true role model of an inspiring, engaged, thoughtful, invited speaker surgeon scientist. Many thanks are due to Karen Hall, Christine Seabrook, and Laura Gerridzen in the Department of Surgery Office of Education for their incredible dedication and attention to the myriad details and arrangements upon which the success of Collins Day depends.
While Collins Day remains a focal point for departmental research, this last year saw several other remarkable successes that merit mention. Three new research chairs were awarded to surgeon scientists in The Ottawa Hospital University of Ottawa Department of Surgery in the last year. Dr. Rebecca Auer was awarded the first peer-reviewed competitive University of Ottawa, Faculty of Medicine Clinical Research Chair, a Tier 2 chair entitled “Perioperative Cancer Therapeutics”. In addition, with the assistance of the Ottawa Hospital Foundation, Dr. Rodney Breau was awarded a Urology research chair in “Urology Oncology Research”; and Dr. Eve Tsai was awarded a “Spinal Cord and Brain Regeneration Research Chair”. Congratulations to all for their achievements and for their remarkable research.

Research activity continues to grow significantly in all divisions. Large peer-reviewed competitive multiyear grants worth well over $10M in funding were awarded to multiple surgeons last year who obtained grants as principal investigators, including Drs. Anthony Bella, Rodney Breau, Ilias Cagiannos, Duane Hickling, Luis Guerra, Munir Boodhwani, Marc Ruel, Khan Lam, Kyle Cowan, Angel Arnaout, Rebecca Auer, Ahmed Nasr, Adam Sachs, Eve Tsai, Yvonne Ying, Andrew Seely, Sebastien Gilbert, James Villeneuve, Sudhir Nagpal, Paule Beaulé, Geoff Dervin, Wade Gofton, Paul Kim, Peter Lapner, Joel Werier, and I am sure many more (apologies to those inadvertently excluded).

Looking to the future, as an effort to directly improve quality and effectiveness of care, the Department of Surgery is seeking to empower grass-roots quality improvement, clinical and education research. A departmental program of surgical quality improvement research was created in 2015, with plans for helping to build a grass-roots network of programs of clinical and quality improvement research centered in units of surgical care working together to provide care for a population of patients. Dr. Andrew Seely and Dr. Jelena Ivanovic were hired as Director and Manager of this program. This departmental focus is in alignment with the vision of The Ottawa Hospital to provide world-class care, service and compassion that we would want for our loved ones. In addition, our aim to build clinical and educational surgical research programs to directly improve care and education is in alignment with The Ottawa Hospital Research Institute and the university of Ottawa and their strategic priorities of patient-centered practice-changing research.

Reorganization of departmental research occurred in the last year. In 2015, Dr. Andrew Seely accepted the role of Director of Research for the department. In addition, three domains of research were created. Dr. Rodney Breau will act as Director of Clinical Research, Dr. Rebecca Auer as Director of Translational Research, and Dr. Wade Gofton as Director of Education Research; their role is to foster partnerships, collaboration and synergy between research programs within their domain of research. All divisions have a Director of Research, who helps assist the numerous divisional research activities (including resident research) performed in all divisions; the 8 divisional Research Directors include: Drs. Fahad Alkherayf, Ilias Cagiannos, Vince Chan, Prasad Jetty, Peter Lapner, Rebecca Auer, Andrew Seely and Claudia Malic. Thanks to all for helping to build Ottawa surgical research!

In summary, the 2014–2015 academic year of research in the Department of Surgery was remarkably productive, with breakthroughs in surgical research funding, and new programs that build partnerships and are forward-looking. As always with research, the future entails an exciting voyage of discovery.
AWARDS LIST

W.E. Collins Prize—Best Overall Paper ($500)
» Dr. Ritesh Kumar—Neurosurgery

Graeme Barber Prize—Best Clinical Paper ($500)
» Dr. Markian Pahuta—Orthopaedic Surgery

J.P. Collins Prize—Best Translational Paper ($500)
» Dr. Talal Al-Atassi—Cardiac Surgery

Best Educational Paper ($500)
» Dr. Janelle Rekman—General Surgery

Outstanding Poster Presentations ($300)
» Dr. Pranavi Ravichandra—Vascular Surgery
» Dr. Nada Gawad—General Surgery
» Dr. John Morellato—Orthopaedic Surgery

Excellence in Teaching—Best Staff Teacher (priceless)
» Dr. Dalibor Kubelik—Vascular Surgery
» Dr. Fraser Rubens—Cardiac Surgery

Farid Shamji Award for Outstanding Resident Teaching (priceless)
» Dr. Cait Champion—General Surgery
» Dr. Alan Berg—General Surgery
» Dr. Nikoo Rajaee—General Surgery

Respectfully submitted,

Andrew Seely
Director of Research, Department of Surgery
1. Collins Day dinner at the Château Laurier
2. Dr. Andrew Seely, Research Director
3. Dr. Jim Watters and Dr. Sudhir Sundaresan
4. Dr. Stuart Oake and Dr. J. Curtis, Visiting Professor
5. Teacher of the Year Award: Dr. Dalibor Kubelik and Dr. Fraser Rubens
Comprehensive Unit-based Safety Program (CUSP) continues to reduce Surgical Site Infections at The Ottawa Hospital

The Ottawa Hospital has implemented an integrated perioperative quality management program utilizing The American College of Surgeons National Surgical Quality Improvement Program (NSQIP). The mission of NSQIP is to achieve surgical quality improvement through rigorously-collected, risk-adjusted outcomes. NSQIP utilizes clinical data collected by trained nurse reviewers (Surgical Clinical Reviewers) from a random sample of 20% of essentially all surgical cases (except ophthalmology). Inpatient records and outpatient records are analyzed for evidence of postoperative morbidity and mortality occurring within 30 days of surgery. NSQIP is considered to be the preeminent surgical quality improvement program and has been demonstrated to considerably improve surgical morbidity and mortality. Over 700 hospitals currently participate in NSQIP.

NSQIP Semi-Annual Reports have demonstrated that TOH risk-adjusted surgical mortality is typically within the top 10% of NSQIP-participating hospitals. TOH demonstrates excellent overall medical care of the surgical patient. The incidence of cardiac complications, pneumonia, unplanned intubation, prolonged ventilation, and deep venous thrombosis/pulmonary embolism is typically low. However, the risk-adjusted surgical site infection (SSI) rate has been somewhat higher than expected.

In March 2013 to address the suboptimal SSI rate, TOH Corporate Perioperative Committee implemented the Comprehensive Unit-based Safety Program (CUSP). Developed at Johns Hopkins University, CUSP empowers staff to assume responsibility for safety in their environment and bring about significant safety improvements.

TOH has formed 17 multidisciplinary CUSP Teams and 7 CUSP Working Groups by surgical subspecialty, intervention, and campus to initiate surgical best practices to reduce SSIs (Tables 1 and 2). All teams include frontline providers. Many teams include a hospital Vice President to facilitate implementation of recommended quality improvement interventions. The CUSP initiative is coordinated by the NSQIP Surgeon Champion and two Quality Improvement Coordinators. Over 200 perioperative personnel have been involved in CUSP.
### TABLE 1: TOH NSQIP CUSP TEAMS

<table>
<thead>
<tr>
<th>Service/Area</th>
<th>Campus</th>
<th>Lead</th>
<th>Assigned Exec Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Room (OR)</td>
<td>Civic</td>
<td>Laurie Allan</td>
<td>Joanne Read</td>
</tr>
<tr>
<td>Operating Room (OR)</td>
<td>General</td>
<td>Bonnie Dove / Lynn Shephard</td>
<td>Dr. Sudhir Sundaresan</td>
</tr>
<tr>
<td>Peri-operative Areas</td>
<td>Riverside</td>
<td>Virginia Vezina / Mary Anne Willson</td>
<td>Paula Doering</td>
</tr>
<tr>
<td>Vascular Surgery</td>
<td>Civic</td>
<td>Dr. Andrew Hill</td>
<td>Dr. Jim Worthington</td>
</tr>
<tr>
<td>Orthopaedic Surgery</td>
<td>Civic</td>
<td>Dr. Steve Kingwell</td>
<td>Dr. Jim Worthington</td>
</tr>
<tr>
<td>General Surgery OR</td>
<td>Civic/General</td>
<td>Dr. Husein Moloo</td>
<td>Paula Doering</td>
</tr>
<tr>
<td>General Surgery B2 (Floor)</td>
<td>Civic</td>
<td>Kylie Lacelle / Dr. Husein Moloo</td>
<td>Paula Doering</td>
</tr>
<tr>
<td>General Surgery 7E (Floor)</td>
<td>General</td>
<td>Maureen McGrath / Dr. Husein Moloo</td>
<td>John Trickett</td>
</tr>
<tr>
<td>General Surgery (Bariatrics)</td>
<td>Civic</td>
<td>Dr. Amy Neville / Dr. Husein Moloo</td>
<td>N/A</td>
</tr>
<tr>
<td>General Surgery (HPB)</td>
<td>General</td>
<td>Dr. Richard Mimeault</td>
<td>Paula Doering</td>
</tr>
<tr>
<td>General Surgery (B2//7E Patient Safety/Experience)</td>
<td>Civic/General</td>
<td>Dr. Husein Moloo</td>
<td>N/A</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>Civic</td>
<td>Dr. Howard Lesiuk</td>
<td>Cameron Love</td>
</tr>
<tr>
<td>Gynecology</td>
<td>All campuses</td>
<td>Dr. Laura Hopkins</td>
<td>Dr. Jim Worthington and John Trickett</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>Civic/General</td>
<td>Dr. James Haebe</td>
<td>Dr. Jim Worthington</td>
</tr>
<tr>
<td>Otolaryngology—Head and Neck Surgery</td>
<td>General</td>
<td>Dr. Mike Odell / Dr. Stephanie Johnson</td>
<td>Cameron Love</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>General</td>
<td>Dr. Gloria Rockwell</td>
<td>Dr. Jim Worthington</td>
</tr>
<tr>
<td>Urology</td>
<td>Civic/General</td>
<td>Dr. Matt Roberts</td>
<td>Dr. Jim Worthington</td>
</tr>
</tbody>
</table>
### TABLE 2: TOH CORPORATE CUSP WORKING GROUPS

<table>
<thead>
<tr>
<th></th>
<th>Campus</th>
<th>Lead</th>
<th>Assigned Exec Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre and Intra Operative Patient Warming Working Group</td>
<td>All campuses</td>
<td>Dr. Ian Zunder</td>
<td>N/A</td>
</tr>
<tr>
<td>Wound Management Working Group</td>
<td>All campuses</td>
<td>Dr. Husein Moloo</td>
<td>N/A</td>
</tr>
<tr>
<td>Peri-operative Antibiotics Working Group</td>
<td>All campuses</td>
<td>Dr. Don Miller</td>
<td>N/A</td>
</tr>
<tr>
<td>Blood Glucose Working Group</td>
<td>All campuses</td>
<td>Dr. Laura Hopkins</td>
<td>Dr. Jim Worthington</td>
</tr>
<tr>
<td>OR Housekeeping Working Group</td>
<td>All campuses</td>
<td>Laurie Allan / Bonnie Dove</td>
<td>Joanne Read</td>
</tr>
<tr>
<td>OR Hand Hygiene Working Group</td>
<td>All campuses</td>
<td>Dr. David Schramm</td>
<td>Dr. Jim Worthington</td>
</tr>
<tr>
<td>General Surgery – ERAS (Enhanced Recovery After Surgery)</td>
<td>All campuses</td>
<td>Dr. Rebecca Auer</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Individual CUSP teams used the results of a perioperative quality improvement survey to inform changes to clinical processes. Specific interventions began in September 2013. To date, a total of 29 major interventions with 89 supporting sub-interventions have been developed, tested, measured, reviewed, implemented and spread where applicable.

Although the majority of interventions are specific to the individual surgical specialties, there have been four primary multispecialty perioperative quality improvement initiatives implemented across ORs at all campuses: Perioperative Patient Warming, Antibiotic Prophylaxis, Wound Management, and Environmental Sterility. Since the implementation of CUSP, there has been consistent overall improvement in perioperative performance measures (Figures 1–3).
Figure 1: Cefazolin Pre-Op Compliance

![Graph showing Cefazolin Pre-Op Compliance with data points from March 2013 to July 2015. The graph includes a blue line for First Dose < 60min, a red dotted line for Baseline (Median), and a green line for Target.]

Figure 2: Cefazolin Re-dosing Success (Cases > 4 Hours)

![Graph showing Cefazolin Re-dosing Success with data points from March 2013 to July 2015. The graph includes a blue line for Redose and a red dotted line for Baseline (Median).]

Manual Timers

Electronic Timers at 1 Campus

Electronic Timers at all 3 Campuses
Over the past 2 years, there has been a progressive improvement in the TOH overall SSI rate (Figure 4). During the CUSP initiative, the NSQIP risk-adjusted semi-annual SSI rate has improved by over 25%, from 5.1% to 3.75%. As a result of the progress of this initiative, the mandate of many CUSP teams will be broadened this year to encompass readmission rate, efficiency and patient experience.

TOH is one of the founding members of the Ontario NSQIP Collaborative coordinated through Health Quality Ontario. Our hospital is recognized provincially and nationally as a leader in surgical quality improvement. The Department of Surgery gratefully acknowledges the substantial efforts of TOH staff surgeons, anesthesiologists, residents, and OR personnel to reduce SSIs. Their commitment to work collaboratively has been essential to the success of this surgical quality improvement initiative.
Respectfully submitted,

Dave Schramm

NSQIP Champion
SURGICAL ONCOLOGY PROGRAM

MEMBERS

GYNECOLOGIC ONCOLOGY (Department of Obstetrics and Gynecology)
» Wylam Faught
» Michael Fung-Kee-Fung (Head, SOP)
» Laura Hopkins (Lead)
» Tien Le
» Johanne Weberpals

MELANOMA
» Stephanie Johnson-Obaseki (H&N)(co-Lead)
» Carolyn Nessim (GS, co-Lead)

SARCOMA
» Hesham Abdelbary (Ortho)
» Rebecca Auer (GS)
» Carolyn Nessim (GS)
» Joel Werier (Ortho, Lead)

GENITOURINARY/PROSTATE (Division of Urology)
» Rodney Breau
» Ilias Cagiannos
» Chris Morash (Lead, Surgical Oncology Associates)

HEAD AND NECK ONCOLOGY (Department of Otolaryngology)
» Stephanie Johnson-Obaseki
» Andre Lamothe
» Michael Odell (Lead)

HEPATOBILIARY/PANCREATIC (Division of General Surgery)
» Fady Balaa
» Guillaume Martel (Lead)

BREAST (Division of General Surgery)
» Angel Arnaout
» Carolyn Nessim
» James Watters (Lead)
**COLORECTAL (Division of General Surgery)**

- Rebecca Auer
- Robin Boushey (Lead)
- Husein Moloo

**LUNG/ESOPHAGUS/STOMACH (Division of Thoracic Surgery)**

- Donna Maziak (Lead)
- Sudhir Sundaresan
- Farid Shamji

**AWARDS AND HONOURS**

- Dr. Auer was awarded a Tier 2 University of Ottawa Research Chair in Perioperative Cancer Therapeutics, and was the recipient of the University of Ottawa Distinguished Young Professor Award for 2014.
- Dr. Fung-Kee-Fung was recently recognized with a prestigious federal award for leadership—provincial category: 2015 Distinction Awards Leadership Award (Government Technology Exhibition Conference) for his work in Cancer Transformation and system redesign.
- Dr. Breau was the recipient of the first Department of Surgery Chair in Clinical Research at the University of Ottawa

**PROGRAM OVERVIEW**

The SOP continues to implement its strategic plan in concert with the Ontario Cancer Plan IV and the TOH mission objectives. The year in review highlights the leadership focus of the surgical cancer group in: 1) the end to end integration of patient flow regionally, from screening to palliation and across all disease site groups, 2) the implementation of regional Multidisciplinary Case Conferences for all disease sites, 3) knowledge translation efforts with further implementation of the Ottawa Communities of Practice model to enable quality improvement and care innovation. In addition, the group continues to be focused on surgical delivery innovations with recent notable achievements such as 1000th robotic case milestone (a multiple disease site achievement), the breast cancer TEAM program, the HPB pancreatic cyst central intake clinic and the liver tumor transarterial embolization (TACE) program. As well, our role in co-leading discovery initiatives continues with surgical leadership in oncolytic viral and peri-operative research initiatives, all of which have been peer reviewed funded.
A notable centrepiece of the year’s achievements has been the development and implementation of a novel model for Cancer System Transformation—the TOH way—which has been successfully piloted in Lung Cancer by our thoracic group and has resulted in significant quality and system improvements, and care innovations across the spectrum of care, including the patient experience. The Surgical Oncology group continues to provide significant content and thought leadership at the provincial and national levels in oncology quality, investigative research and discovery. Listed below is an abridged summary of the activities and publications.

The thyroid CoP, led by Dr. Odell, has introduced guidelines for image-guided biopsy of thyroid nodules and has initiated standardized follow up pathways, with the goals of improving patient experience and eliminating system inefficiencies.

The ERAS (Enhanced Recovery After Surgery) initiative, led by Dr. Auer, is aimed at standardizing the post-operative care of colorectal cancer patients. It has now been implemented at TOH and is being rolled out in the region.

In conjunction with the Cancer Care Ontario Quality-Based Procedures initiative for colorectal cancer, the colorectal CoP—led by Dr. Boushey—is undertaking a regional initiative to reduce costs relating to OR supplies, PACU, in-patient units, and pathology.

An otolaryngology CUSP group has been formed with the initial goal of reducing surgical site infections (Lead, Dr. Odell).

CUSP teams in colorectal and gynecologic cancer, led by Drs. Moloo and Hopkins, respectively, have successfully reduced SSI rates with a multipronged quality strategy.

The HPB group has implemented a multidisciplinary pancreatic cyst clinic.

The TEAM (ThE Advanced Multidisciplinary) program—led by Dr. Arnaout—was developed in the Breast Health Centre to promptly identify and appropriately direct the care of patients with locally advanced or inflammatory breast cancer. The time needed for evaluation and initiation of treatment of these patients with unique needs has improved markedly.

Disease-site focused communities of practice remain the essential platform for shared learning and implementation of best practices in the LHIN. A new CoP in bladder cancer has been established (Lead, Dr. Cagiannos) and a melanoma CoP is being developed (Lead, Dr. Nessim). The melanoma group has established an active MCC and improved the triage and best practice in care for melanoma patients referred to the Cancer Program.
SETTING STANDARDS

Cancer Care Ontario

» Expert Panel, Cervical Cancer Pathway (Dr. Le)
» Expert Panel, Prostate Cancer Treatment Pathway (Dr. Morash)
» Working Group, Program in Evidence-Based Care (PEBC) (Dr. Morash)
» Expert Panel, QBP (Quality Based Procedures) Provincial Prostate Cancer Surgery Handbook Development (Dr. Morash)
» Expert Panel, Active Surveillance for Low Risk Prostate Cancer (Dr. Cagiannos)
» Expert Panel, Prostate Biopsy Guidelines (Dr. Cagiannos)
» Expert Panel, Breast Cancer Diagnostic and Treatment Clinical Pathway Development (Dr. Arnaout)
» Provincial organizational standards in Gynecologic Oncology (Dr. Fung-Kee-Fung)
» Working Group, Breast Cancer Surgery Quality-Based Procedures (Dr. Arnaout)
» Disease Site Group for Head and Neck, Disease Pathway Management for thyroid cancer, and development of a QBP framework for thyroid surgery
» Designation of TOH as a provincial Sarcoma Centre of Excellence
» Sarcoma Steering Committee, work including sarcoma referral pathway for suspected soft tissue sarcoma and quality outcome metrics
» PEBC clinical guidelines for desmoid tumours, surgical margins and handling of soft tissue sarcoma and clinical practice guideline for Ewing’s sarcoma
» Member, Practice Guideline Initiative, Lung Group (Dr. Maziak)
» Expert Panel, Lung Cancer Disease Pathway (Dr. Maziak)
» Lung Cancer Imaging Synoptic CT Reporting Expert Panel Recommendations Guideline (Dr. Maziak)
» Member, Lung Cancer Survivors Guideline (Dr. Maziak)

Other

» American Urological Association, Practice Guideline Committee (Dr. Breau)
» Bladder Cancer Canada, Medical Advisory Board and Research Advisory Board (Dr. Cagiannos)
» National Prostate Cancer Active Surveillance Guideline (Dr. Morash)
» Canadian Breast Cancer Foundation, Grant Review Panel (Dr. Arnaout)
» Pan-Canadian Drug Review (Dr. Le)
» ASCO Survivorship Guideline Advisory Group (Dr. Maziak)
» Pan-Canadian Lung Cancer Screening Program, Surgical Representative (Dr. Maziak)
» Lung Cancer Canada, Surgical Lead (Dr. Maziak)

**Technological Innovation**

» The Robotic Surgery program achieved its 1000th robotic case, a quality and performance achievement benchmark that was faster than any other Canadian centre. The program remains one of the provincial leaders.

» A program of radioactive seed localization of non-palpable breast cancers for surgical excision was implemented at TOH by a multidisciplinary group led by Dr. Nessim. The program is cost neutral and has important advantages for patients, surgeons and the hospital, facilitating patient flow and improving patient experience in a high volume surgical program.

» The liver tumor transarterial embolization (TACE) program was initiated in March 2014 – led by Dr. Martel - and has developed rapidly with 90 procedures performed to date.

**Developing knowledge**

**Knowledge Translation**


» Angel Arnaout (co-PI). *Use of innovative knowledge translation strategies to reduce overuse of diagnostic imaging in early stage breast cancer*. Canadian Cancer Society Knowledge to Action Grant: $100,000 (2014-2016).


» Angel Arnaout: US National Cancer Institute Award in Knowledge Dissemination in Health Care 2015

Dr. Auer leads the Surgical Oncology Translational Research Program in Perioperative Cancer Therapeutics, studying why surgical stress promotes the growth and spread of cancer and how to reverse this with perioperative immunotherapies. In the past year she was awarded grants from the Canadian Cancer Society Research Institute and the Cancer Research Society, and is a member of a national team awarded a $25 million grant from the Networks of Centers of Excellence, BioCan Rx (PI: John Bell) to translate biological therapies into the clinic.

Uro-oncology

- Rodney Breau (Co-PI): Prostate Cancer Canada Movember Grant ($5M), Development of a targeted oncolytic virus vaccine for the treatment of metastatic prostate cancer
- Rodney Breau (PI): CIHR, $400K, Tranexamic Acid in Cystectomy Trial (TACT)
- Ilias Cagiannos (PI): CIHR, $180K, Renal Hypothermia during Partial Nephrectomy

Breast oncology

- Dr. Weberpals is studying the effect of PARP inhibitors on fresh ovarian cancer tissue (A biomarker study of Poly(ADP-ribose) polymerase inhibitor (PARPi) ABT-888 activity on ex vivo tissue from ovarian cancer patients, PI).
- The Ottawa Bone Oncology Program collaborative with basic scientists at the OHRI continues to look into mechanisms and treatments for metastatic bone disease. The sarcoma oncolytic virus program has been strengthened with renewed funding (Drs. Abdelbary and Werier).
- Martel G (PI), Wherrett C, Fergusson DA: Canadian Surgical Research Fund, $10,000 (2015), The PRICE trial: phlebotomy resulting in controlled hypovolemia to prevent blood loss in major hepatectomy.
Education and Globalization

» Education initiatives of the sarcoma group include a robust fellowship program and a national week-long basic science course for orthopaedic surgical residents. (Dr. Werier)

» Dr. Le leads the Royal College-accredited fellowship program in Gynecologic Oncology.

» Dr. Faught continues as external examiner to Kenyan Gynecologic Oncology Program.

» Dr. Fung-Kee-Fung is a Director on the Board of the Gynecologic Cancer Inter-Group, an international agency in cancer clinical trials development and implementation.

Respectfully submitted,

Michael Fung-Kee-Fung
Chief, Surgical Oncology Program
DIVISIONAL REPORTS
DIVISION OF CARDIAC SURGERY

FACULTY MEMBERS

Adult Cardiac Surgeons

» Dr. Marc Ruel (Division Head)
» Dr. Munir Boodhwani
» Dr. Vincent Chan
» Dr. David Glineur
» Dr. William Goldstein
» Dr. Paul Hendry
» Dr. Buu Khanh Lam
» Dr. Roy Masters
» Dr. Thierry Mesana
» Dr. Fraser Rubens

Scientists

» Dr. Emilio Alarcon
» Dr. Tofy Mussivand
» Dr. Erik Suuronen

Associates

» Dr. Elsayed Elmestekawy
» Dr. Harry Lapierre
» Dr. Ladislaus Ressler

Congenital Heart Surgeons

» Dr. Gyani Maharajh
» Dr. Ganesh Shanmugam
PROMOTIONS & APPOINTMENTS

Dr. David Glineur

» In 2015, our division recruited Dr. David Glineur, MD, PhD, an internationally renowned academic surgeon from Belgium, considered to be one of the world’s leaders in multiarterial coronary revascularization, as well as an expert in robotic cardiac surgery.

Dr. Munir Boodhwani

» In May of 2015, Dr. Munhir Boodhwani was promoted to the rank of Associate Professor.

FELLOWSHIPS & FELLOWS

CLINICAL FELLOWS

Our division offers 3 specialized areas of fellowship, in addition to general cardiac surgery. These consist of 1) minimally invasive cardiac surgery; 2) advanced valve repair techniques; and 3) heart transplantation and mechanical circulatory support. There is considerable international attraction towards these coveted fellowship positions, and several of our fellows have moved on to prominent academic positions on the world scene.

Our clinical fellows for 2014–15 were:

» Dr. Graham Meredith (Australia)
» Dr. Zhaozhuo Niu (China)
» Dr. Maria Rodriguez (Philippines)
» Dr. Dai Une (Japan)
RESEARCH FELLOWS

Our laboratory research program, led by Dr. Suuronen, and funded by CIHR and other sources for the past 12 years, is extensive, with 3 full-time PIs (Drs. Alarcon, Mussivand, and Suuronen), 3 staff surgeon investigators (Drs. Boodhwani, Chan, and Ruel), 1 associate scientist (Dr. Michel Labrosse), and approximately 10 full-time honours, graduate, and postgraduate students. Our research fellows’ success has been noted by high impact publication as well as a long tradition of personnel awards from the Canadian Institutes of Health Research and the Heart and Stroke Foundation of Ontario. In spring 2015, Dr. Maeda was selected as a finalist of the American Heart Association’s Young Investigator Award’s competition.

Our research fellows for 2014–15 were:

» Dr. Reza Jafar (Canada)
» Dr. Kay Maeda (Japan)
» Dr. Brian McNeill (Canada)
» Dr. Donna Padavan (Canada)
» Dr. Rashmi Tiwari-Pandey (Canada)

CARDIAC SURGERY RESIDENTS

The Adult Cardiac Surgery program at the University of Ottawa is recognized nationally as a leader in program development and objective evaluation. Currently there are 7 full-time residents in the training program. The program has a well-structured academic half day with participation from all faculty. Over the past two years, we have developed an active simulation program, which will exceed requirements from the Joint Council on Thoracic Surgery Association. Through the generosity of one of the Heart Institute alumni, we have now established a high-fidelity cardiopulmonary bypass simulator (Califia) which will allow intensive training to mid-year residents in intraoperative management. Research productivity remains very high for the residents in Cardiac Surgery who routinely present at national and international meetings and contribute to manuscripts in the Cardiac Surgery literature. Going forward, the Heart Institute will be in an ideal position to lead in the roll-out of Competency By Design.

In July 2015 our division hosted the Ottawa Junior Resident Cardiovascular week at the Simulation Center with collaboration from the Royal College, the Canadian Society of Cardiac Surgery and a host of industry partners. As a reflection of the program’s success, the Program Director (Dr. Fraser Rubens) was awarded the Best Program Director of 2015 by the Royal College at the Vancouver ICRE conference in October 2015. The Cardiac Surgery Program holds full approval from the Royal College and is scheduled for accreditation in the fall of 2016.
Our cardiac surgery residents for 2014–15 were:

» Dr. Talal Al-Atassi
» Dr. Habib Jabaji
» Dr. Nadzir Juanda
» Dr. Donna Kimmaliardjuk
» Dr. Tarek Malas
» Dr. Janet Nu
» Dr. Hadi Toeg

NEW SERVICES SURGICAL & CLINICAL

We are the only cardiac surgery division in Canada to offer a full scope of invasive and minimally invasive cardiac surgical therapies. Our programs include a wide scope of therapies from mitraclip, TAVI, minimal invasive standalone atrial fibrillation ablation, multivessel CABG, aortic valve replacement and mitral valve repair, to advanced valve repair techniques (mitral and aortic), HOCM surgery, LVAD, and transplants. For the last few years our program has performed the most heart transplants in Canada, with results well above ISHLT benchmarks. In 2014–15, we have started a collaborative TEVAR program with vascular surgery.

PLANS FOR THE FUTURE

We have discussed together multiple plans for the future, but in a nutshell, we wish to continue to expand our pursuit towards excellence in clinical care, research, and education. Below is a small sample of the pursued initiatives for the next 1–2 years, which include:

» Always strive to continue increasing our surgical quality, volume and service delivery.
» Expand our already considerable minimally invasive portfolio.
» Continue to expand our follow-up to all our patients, in order to constitute what will amount to one of the best divisional follow-up structures in the world.
» Prepare our transition to the new Life Support Building of the UOHI, with concrete plans for new Hybrid Cardiac Operative Therapies.
» Support and enhance the concept of Heart Teams in Cardiac Surgery, Cardiology, Anesthesia and Prevention.
» Further develop destination LVAD therapy.
» Provide translational research support for our faculty and trainees.
Further enhance our clinical trial structure and leadership, and continue to involve trainees with a central role.

Transition our residency program to a Competency by Design philosophy and structure.

Train some of the best fellows in the world, who will return to their centre as ambassadors of our Institution’s values.

VISITING PROFESSORS

Visiting Professors invited to Ottawa by the Division of Cardiac Surgery:

- Dr. Juan B. Grau, Associate Professor, Columbia
- Dr. André Lamy, Professor and Cardiac Surgeon, Hamilton Health Sciences
- Dr. Johannes Bonatti - Cleveland Clinic, Grand Rounds, May 6th, 2015
- Dr. Joseph Sabik, Cleveland Clinic
- Dr. Alex Kulik, Boca Raton Heart Institute
- Dr. Basel Ramlawi, Methodist Heart Center, Houston
- Dr. Andrew Putnam, U Michigan

Members from our division invited externally as Visiting Professor:

- Dr. Marc Ruel, Visiting Professor, Minneapolis Heart Institute, MN, USA (Nov 2014)
- Dr. Marc Ruel, Visiting Professor, Sakakibara Heart Institute, Tokyo, Japan (Feb 2015)

SPECIAL PRESENTATIONS & INVITED LECTURESHIPS

Over 25 invited lectures were given by our cardiac surgery division members in 2014–15.
HONOURS & AWARDS

Dr. Tofy Mussivand

» Nominated to Canadian Medical Hall of Fame, 2015

Dr. Fraser Rubens

» Program Director Award - Department of Surgery
» 2015 Program Director of the Year Award, Royal College of Physicians and Surgeons of Canada

Dr. Marc Ruel

» Robert Roberts Award of Research Excellence (best publication in 2014–15 from the UOHI)
» 2015 Award of Excellence in Clinical Research from UOHIAMO

PUBLICATIONS

The Division of Cardiac Surgery made the following contributions to the published literature in 2014–2015: 71 publications

These selected publications represent those of greatest impact:


## RESEARCH GRANTS

<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ruel, Marc (PI) Suuronen, Erik (PI)</td>
<td>Optimizing Signaling, Cells, and Host Environment in Matrix-based Cardiac Regenerative Therapy: Towards Pre-clinical Application</td>
<td>Operating Grant</td>
<td>CIHR</td>
<td>$619,260</td>
<td>2013/10</td>
<td>2018/09</td>
</tr>
<tr>
<td>Ruel, Marc (Co-I) Ko, Dennis (PI)</td>
<td>Improving the Quality of Care and Outcomes of Patients with Aortic Stenosis</td>
<td>Operating Grant</td>
<td>HFSC</td>
<td>$181,457</td>
<td>2012/07</td>
<td>2015/06</td>
</tr>
<tr>
<td>Ruel, Marc (PI)</td>
<td>HYCARDS: Hybrid Coronary Revascularization in Diabetics Patients</td>
<td>Intrarenal Grant</td>
<td>UOHIAMO Innovation Grant Competition</td>
<td>$50,000</td>
<td>2014/07</td>
<td>2016/06</td>
</tr>
<tr>
<td>Ruel, Marc (Co-I) Stone, Gregg (PI)</td>
<td>Evaluation of Xience Prime versus Coronary Artery Bypass Surgery for Effectiveness of Left Main Revascularization (EXCEL) Trial</td>
<td>Operating Grant</td>
<td>CIHR</td>
<td>$345,000</td>
<td>2005/07</td>
<td>2014/06</td>
</tr>
<tr>
<td>Suuronen, Erik (PI)</td>
<td>Synthesis and characterization of tunable chitosan and collagen hydrogel derivatives</td>
<td>Operating Grant</td>
<td>NSERC</td>
<td>$120,000</td>
<td>2012/04</td>
<td>2017/03</td>
</tr>
<tr>
<td>Suuronen, Erik (PI)</td>
<td>Cell-based therapeutic angiogenesis using novel in situ hydrogel composites containing fisetin-loaded micelles for cardiovascular regeneration</td>
<td>China-Canada Joint Health Research Grant</td>
<td>CIHR</td>
<td>$210,493</td>
<td>2012/01</td>
<td>2015/12</td>
</tr>
<tr>
<td>Santerre, Paul (PI), Suuronen, Erik (Co-I)</td>
<td>Monocyte directed tissue regeneration of a blood vessel substitute using a pro-cellular degradable tubular scaffold</td>
<td>Operating Grant</td>
<td>CIHR</td>
<td>$482,576</td>
<td>2014/10</td>
<td>2018/09</td>
</tr>
<tr>
<td>Stewart, Duncan (PI, team leader), Suuronen, Erik (PI)</td>
<td>Solutions for cardio-pulmonary organ repair and regeneration (SCORR)</td>
<td>Operating Grant</td>
<td>ORF</td>
<td>$197,820</td>
<td>2015/09</td>
<td>2019/08</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>--------------------------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Alarcon, Emilio I. (PI)</td>
<td>Biomimetic Nano-Composite Materials for Tissue Engineering</td>
<td>Grant</td>
<td>NSERC Discovery</td>
<td>$125,000</td>
<td>2015/04</td>
<td>2020/04</td>
</tr>
<tr>
<td>Alarcon, Emilio I. (PI)</td>
<td>Biopolymer Coated Silver Nanoparticles With Anti-Biofilm and Anti-Inflammatory Properties for Sutureless Wound Closing</td>
<td>Travel Grant in Partnership with Harvard Medical School</td>
<td>Burroughs Wellcome Fund (BWF)</td>
<td>$13,100</td>
<td>2015/10</td>
<td>2016/10</td>
</tr>
<tr>
<td>Alarcon, Emilio I. (PI)</td>
<td>New hybrid-materials for regenerative medicine</td>
<td>Start-up grant</td>
<td>University of Ottawa Heart Institute</td>
<td>$120,000</td>
<td>2014/07</td>
<td>2016/07</td>
</tr>
<tr>
<td>Alarcon, Emilio I. (PI)</td>
<td>IRAP (Industrial Research Assistance Program, with Sussex Research Laboratories Inc)</td>
<td>IRAP (Industrial Research Assistance Program, with Sussex Research Laboratories Inc)</td>
<td>IRAP</td>
<td>$36,246</td>
<td>2014/07</td>
<td>2015/03</td>
</tr>
<tr>
<td>Mussivand, Tofy (PI)</td>
<td>Medical Devices Commercialization Centre (MDCC)</td>
<td>Operating Grant</td>
<td>Network of Centres of Excellence of Canada for Commercialization and Research (CIHR, NCE &amp; NSERC)</td>
<td>$14,900,000</td>
<td>2014</td>
<td>2019</td>
</tr>
<tr>
<td>Alarcon, Emilio I. (PI)</td>
<td>Industrial partnership with Lincor Inc.</td>
<td></td>
<td></td>
<td>$42,900</td>
<td>2015/10</td>
<td>2016/04</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>--------------</td>
<td>----------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>So, Derek (PI), Rubens, Fraser (Co-I), Ruel, Marc (Co-I)</td>
<td>Reassessment of Anti-Platelet therapy using InDividualized Strategies -Ticagrelor in Patients with Acute Coronary Syndromes Treated by Coronary Artery Bypass Surgery — A Pharmacodynamic and Clinical Study to Decrease Bleeding Risks and Ischemic Complications—The RAPID-TITRATE CABG study</td>
<td>Operating Grant</td>
<td>CIHR</td>
<td>$512,179</td>
<td>2015/09</td>
<td>2018/03</td>
</tr>
</tbody>
</table>
DIVISION OF GENERAL SURGERY

INTRODUCTION

The Division of General Surgery had a productive year of integration to advance both clinical and academic programs.

Dr. Balaa worked with various division members in the development of organized subspecialty units. Both the Colorectal and Surgical Oncology Subspecialty Units have made significant progress. This included amalgamation of offices and sharing of clinical responsibilities and resources. Recruitment plans have been developed for a subspecialty unit focused on Foregut/MIS Surgery. All groups will continue to work on being aligned with TOH vision including quality and safety initiatives, wait times initiatives, and regionalization of care.

A General Surgery Business Management Group has been established, and the terms of reference of this group have been approved by the division. This committee now manages the distribution of all divisional resources to allow for furthering of both clinical and academic agendas. Through this committee several new academic positions have been created within the Research, Education, and Administration pillars.

The divisional research program now awards three salary positions for divisional members who hold an appointment as an OHRI Scientist. These salary awards include a Scientist Award, an Associate Scientist Award, and a New Recruit Award. The divisional residency training program now holds capacity for funded faculty positions in the surgical skills program, the mock oral exam program, and other residency related initiatives. Within the administration pillar the division has created capacity for a section head position for each of the subspecialty units.

The Division of General Surgery continues to lead in the development of QI initiatives. CUSP teams have been assembled and are functional in Bariatrics, HPB, Operating Room (both Civic and General campus), and Wards (both 7E and B2). These teams include representation from surgical faculty, surgical residents, nurses, and allied health. The division has experienced improvements in communication, SSI rates, and patient satisfaction scores. The ERAS program continues to function with demonstrable positive affect on hospital length of stay.
FACULTY MEMBERS

» Dr. Fady Balaa (Division Head)
» Dr. Rebecca Auer
» Dr. Angel Arnaout
» Dr. Robin Boushey
» Dr. Christopher Chadwick
» Dr. Robin Fairfull-Smith (retired March 2015)
» Dr. Martin Friedlich
» Dr. Jacinthe Lampron
» Dr. John Lorimer
» Dr. Joseph Mamazza
» Dr. Guillaume Martel
» Dr. Richard Mimeault
» Dr. Husein Moloo
» Dr. Vijay Moonje (semi-retired)
» Dr. Carolyn Nessim
» Dr. Amy Neville
» Dr. Giuseppe Pagliarello
» Dr. Dennis Pitt
» Dr. Isabelle Raîche
» Dr. Alfred Stedman
» Dr. Shaheer Tadros
» Dr. James Watters
» Dr. Jean-Denis Yelle

NEW RECRUITS/NEW U OF O APPOINTMENTS/ PROMOTIONS/RETIREMENTS

Breast Oncology Subspecialty Unit

Dr. Angel Arnaout was promoted to Associated Scientist at OHRI.

Colorectal Subspecialty Unit

Dr. Isabelle Raîche was recruited in July 2014. Dr. Raîche joined the division as an assistant professor of surgery. She has completed two clinical fellowships focused on Minimally Invasive Surgery (University of Ottawa) and Colorectal Surgery (Washington University School of Medicine). She has also recently completed a Masters degree in medical education at the University of Ottawa. She has an academic interest in surgical education with focus on simulation.

Dr. Husein Moloo was appointed as Associate Scientist at OHRI in November 2014.
Core Surgery/Trauma Subspecialty Unit

Dr. Jacinthe Lampron was appointed as a Clinical Investigator in the Clinical Epidemiology Program in June 2015.

Hepatobiliary Subspecialty Unit

Dr. R. Fairfull-Smith retired in March 2015. He had been at the hospital for 41 years, first as a surgical resident then as staff.

MIS Foregut/Bariatric Subspecialty Unit

Dr. Amy Neville was appointed as Medical Director, The Ottawa Hospital Bariatric Centre of Excellence. Dr. Amy Neville was appointed as Co-Director of the Bariatric Fellowship program in July 2014.

Surgical Oncology Subspecialty Unit

Dr. Rebecca Auer was appointed Executive Member of National Cancer Institute of Canada Clinical Trials Group. Dr. Rebecca Auer was invited to the Editorial Board of the Journal of Surgical Research. She also serves on Cancer Care Ontario’s Sarcoma and Colorectal Expert Panels. Dr. Rebecca Auer was appointed as Research Director for the Division of General Surgery. Dr. Carolyn Nessim was appointed as a Clinical Investigator at OHRI in the Cancer Therapeutics Program.

Fellowships & Fellows

- **Colorectal Surgery:** Dr. Ramzi Helewa and Dr. Milan Ernjakovic
- **Trauma:** Dr. Maher Matar
- **Hepatobiliary and Pancreatic Surgery:** Dr. Melanie Paquin-Gobeil
- **MIS Foregut/Bariatric:** Dr. Andrey Vizhul and Dr. Amirali Shakouripartovi.
SUBSPECIALTY TRAINING, STAFF FELLOWSHIPS OR PROFESSORSHIPS ELSEWHERE

Breast Oncology Subspecialty Unit

Dr. Angel Arnaout attended training at Nottingham Breast Institute where she gained expertise in Oncoloplastic Breast Surgery and Breast Reductions.

Dr. Angel Arnaout graduated from the Physician Leadership Development Program.

NEW SERVICES SURGICAL & CLINICAL

Core surgery/Trauma Subspecialty Unit

The trauma service has established implementation of TQIP (Trauma Quality and Improvement Program).

Hepatobiliary Subspecialty Unit

The HPB subspecialty unit has developed a multidisciplinary clinic focused on cystic neoplasms of the pancreas. This clinic operates at the Riverside Campus and is staffed by an HPB surgeon and a Therapeutic Gastroenterologist.

MIS Foregut/Bariatric Subspecialty Unit

The foregut service has established MBSAQIP accreditation linked with MBSAQIP data collection and quality improvement program for bariatric surgery.

VISITING PROFESSORS

Dr. Hartley Stern, Executive Director and Chief Executive Officer from the Canadian Medical Protective Association served as visiting professor and guest speaker at our General Surgery Research Day in April 2015.
SPECIAL EVENTS & HIGHLIGHTS

In conjunction with the Continued Medical Education office the division is currently establishing a regional conference on various topics in general surgery. The program is intended to reach out to TOH surgeons as well as surgeons throughout the Champlain LHIN.

Core Surgery/Trauma Subspecialty Unit

The trauma program held a Rural Trauma Team Development course aimed at community hospitals of the Champlain LHIN. This took the form of a one day outreach course including didactic lectures and simulation.

Trauma services provided seven Rural Trauma Team Development Courses (RTTDC) for the Champlain LHIN impacting a total of 154 participants including physicians, nurses, administrators and paramedics. There were 4 Trauma Nursing Core Course (TNCC), 3 Advanced Trauma Care for Nurses (ATCN) and 4 Advance Trauma Life Support (ATLS) courses provided over the last year. Each includes between 20 and 25 participants.

Trauma Evaluation and Management (TEAM) was taught to medical students for the first time at TOH, and the experience was repeated during Surgical Exploration and Discovery (SEAD). A total of 25 participants attended each course. TEAM will now be included in the Surgical Bootcamp for year III of the medical school curriculum.

Surgical Oncology Subspecialty Unit

In January 2015 Dr. Nessim was named lead for the Melanoma Communities of Practice and Co-Lead for the Sarcoma Communities of Practice. She was selected as a Member of the Ontario Cancer Research Ethics Board (OCREB) in November 2014.
SPECIAL PRESENTATIONS/INVITED LECTURESHP

**HPB Subspecialty Unit**

Dr. Fady Balaa was invited to present on “Structured Skills Training” at The 2nd Annual China Conference on Residency Education in Beijing China.

**MIS Foregut/Bariatric Subspecialty Unit**

Dr. Amy Neville was invited as a speaker at Canadian Obesity Summit April 2015 in Toronto.

**Surgical Oncology Subspecialty Unit**

Dr. Carolyn Nessim was the invited Speaker at the Ottawa Radiology Breast Update.

Dr. Carolyn Nessim took part in the CBC TV documentary, Keeping Canada Alive. She also presented at the International Multidisciplinary Oncology Conference on “Surgical Management of Melanoma” held in Ottawa in June 2015.

HONOURS/AWARDS

**Breast Oncology Subspecialty Unit**

Dr. Angel Arnaout received the Order of Ottawa Award in September 2014.

Dr. Angel Arnaout was awarded the “Canadian Association of General Surgeons Best Research Award” in September 2014 at the CAGS annual meeting held in Vancouver.

**Colorectal Subspecialty Unit**

Dr. Isabelle Raîche received the Award of Educational Advancement and Innovation in Postgraduate Medical Education in December 2014.
Core surgery/Trauma Subspecialty Unit

2015 Interdisciplinary Trauma Network of Canada Best Open Paper Award—Improving Care of Adolescent Trauma Patients Admitted to Adult Trauma Centers by Fostering Collaboration between Adult and Pediatric Partners M. Waggott, K.L. Whyte


2014 Interdisciplinary Trauma Network of Canada Best Open Paper Award—Implementation of a Bundle to Decrease CAUTI’s in Patients Admitted to the Trauma Service A. Keenan, M. Waggott, H. Knight, E. Clark, J. Pachal, Y. Renaud

MIS Foregut/Bariatric Subspecialty Unit

Dr. Amy Neville received a Department of Surgery Research Grant ($20,000) for her work on “Health care costs and utilization after gastric bypass versus sleeve gastrectomy”.

Surgical Oncology Subspecialty Unit

Dr. Rebecca Auer was the recipient of a University of Ottawa Clinical Research Chair in Perioperative Cancer Therapeutics.

Dr. Auer received The University of Ottawa Distinguished Young Professor Award.

Dr. Rebecca Auer received the Canadian Institute of Health Research New Investigator Award 2014–2019.

PUBLICATIONS

The Division of General Surgery made the following contributions to the published literature in 2014–2015:

- 42 published articles
- 9 in press
- 8 abstracts
- 3 book chapters
These selected publications represent those of greatest impact:

**Breast Oncology Subspecialty**


**Colorectal Subspecialty**


**Hepatobiliary Subspecialty**


**MIS Foregut/Bariatric Subspecialty**


**Surgical Oncology Subspecialty**

PROSPECTIVE PROJECTS

Core Surgery/Trauma Subspecialty Unit

This year saw the creation of the Trauma Resuscitation Quality Improvement Committee. This is a multidisciplinary peer review committee that will oversee and direct all aspects of Trauma Resuscitation.

Trauma service got approved to join Trauma Quality Improvement Program (TQIP). This will elevate the caliber of quality improvement initiative.

OTAC started to use indicators to benchmark the quality of the trauma care in the province. The next year will allow better analysis and review process for improvement on those markers.

TOH has been selected by Ontario Trauma Advisory Committee, (OTAC) to be a pilot site to build the Regional Trauma Network (RTN). This project facilitates trauma system improvements amongst regional hospitals in the Champlain LHIN through shared accountability and engagement of clinicians, administrators, EMS and Ornge. There are 3 working groups developing trauma resuscitation tool, transfer documentation and massive transfusion protocol for the LHIN.

MIS Foregut/Bariatric Subspecialty Unit

Plans are in place for a duodenal switch program. We are initiating a research protocol for pre-transplant patients as well as creating a multidisciplinary foregut clinic with gastroenterology.

Surgical Oncology Subspecialty Unit

Extended Perioperative Low Molecular Weight Heparin to Improve Disease free Survival in Resected Colorectal Cancer: A Canadian multicenter randomized controlled trial. (PI: R. Auer and M. Carrier). This sub-specialty unit is working on Melanoma and Sarcoma COP, continuing the Radioactive SEED Program as well as Rapid Access Prophylactic mastectomy immediate reconstruction (RAPMIR) program. They are also working on a Melanoma multidisciplinary clinic.
## RESEARCH GRANTS

### Principal Investigators

<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. A Arnaout</td>
<td>Increasing Use of Contralateral Prophylactic Mastectomy: A Concern for Over-Aggressive Treatment of Early Stage Breast Cancer Patients.</td>
<td>Peer reviewed</td>
<td>Ontario Institute of Cancer Research and Cancer Care Ontario</td>
<td>$99,000</td>
<td>2015/05</td>
<td>2017/05</td>
</tr>
<tr>
<td>Dr. A Arnaout</td>
<td>Increasing Use of Contralateral Prophylactic Mastectomy in Ontario</td>
<td>Peer reviewed</td>
<td>Ontario Institute of Cancer Research and Cancer Care Ontario</td>
<td>$100,000</td>
<td>2015/05</td>
<td>2017/05</td>
</tr>
<tr>
<td>Dr. A Arnaout</td>
<td>Use of innovative knowledge translation strategies to reduce overuse of diagnostic imaging in early stage breast cancer.</td>
<td>Peer reviewed</td>
<td>Canadian Cancer Society Knowledge to Action Grant</td>
<td>$100,000</td>
<td>2015/05</td>
<td>2017/05</td>
</tr>
<tr>
<td>Dr. A Arnaout</td>
<td>The CUBIC Trial: A Window of Opportunity Trial Evaluating the Role of Chloroquine and Autophagy in Breast Cancer.</td>
<td>Peer reviewed</td>
<td>Canadian Breast Cancer Foundation (CBCF)</td>
<td>$450,000</td>
<td>2014/05</td>
<td>2017/05</td>
</tr>
<tr>
<td>Dr. A Arnaout</td>
<td>The specimen margin assessment technique (SMART) Trial: A novel 3D method of identifying the most accurate method of specimen orientation in breast cancer surgery</td>
<td>Peer reviewed</td>
<td>Canadian Cancer Society</td>
<td>$140,050</td>
<td>2014/08</td>
<td>2015/09</td>
</tr>
<tr>
<td>Dr. A Arnaout</td>
<td>The specimen margin assessment technique (SMART) Trial: A novel 3D method of identifying the most accurate method of specimen orientation in breast cancer surgery</td>
<td>Peer reviewed</td>
<td>Canadian Association of General Surgeons</td>
<td>$10,000</td>
<td>2014/08</td>
<td>2015/09</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>-------------------------------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Dr. A Arnaout</td>
<td>A Phase 2 Randomised, Double-blind, Window of Opportunity Trial Evaluating Clinical and Correlative Effects of Vitamin D in Patients with Breast Cancer. The ICARUS Trial</td>
<td>Peer reviewed</td>
<td>Canadian Breast Cancer Foundation (CBCF)</td>
<td>$275,050</td>
<td>2012/05</td>
<td>2015/05</td>
</tr>
<tr>
<td>Dr. A Arnaout</td>
<td>Use of innovative knowledge translation strategies to reduce overuse of diagnostic imaging in early stage breast cancer.</td>
<td>Peer reviewed</td>
<td>Canadian Cancer Society Knowledge to Action</td>
<td>$100,000</td>
<td>2014/08</td>
<td>2016/08</td>
</tr>
<tr>
<td>Dr. R Auer</td>
<td>Investigating the role of surgery-induced Myeloid Derived Suppressor Cells in postoperative immune suppression and cancer recurrence</td>
<td>Peer reviewed</td>
<td>Cancer Research Society</td>
<td>$120,000</td>
<td>2015/09</td>
<td>2017/08</td>
</tr>
<tr>
<td>Dr. R Auer</td>
<td>Combining oncolytic vaccines (OVax) with surgery and immune modulation to prevent postoperative cancer recurrence and metastases</td>
<td>Peer reviewed</td>
<td>Canadian Cancer Society Research Institute</td>
<td>$450,000</td>
<td>2015/03</td>
<td>2018/02</td>
</tr>
<tr>
<td>Dr. R Auer</td>
<td>Closing the Gap in Cell-based Immunotherapy at the OHRI</td>
<td>Peer reviewed</td>
<td>John Sealy Memorial Endowment Fund for Biomedical Research (JSMEF)</td>
<td>$9,400</td>
<td>2015/03</td>
<td>2016/02</td>
</tr>
<tr>
<td>Dr. R Auer</td>
<td>A rational approach to preventing postoperative metastatic disease by reversing perioperative immune suppression by Myeloid Derived Suppressor Cells</td>
<td>Peer reviewed</td>
<td>Cancer Research Society</td>
<td>$119,872</td>
<td>2013/09</td>
<td>2015/08</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Dr. R Auer</td>
<td>A Translational Approach to Targeting the Perioperative Period With Innovative Cancer Therapies</td>
<td>Peer reviewed</td>
<td>John Sealy Memorial Endowment Fund for Biomedical Research (JSMEF)</td>
<td>$160,000</td>
<td>2013/03</td>
<td>2015/02</td>
</tr>
<tr>
<td>Dr. R Auer</td>
<td>A Personalized Oncolytic Vaccine: Using oncolytic viruses to exploit neo-antigens derived from the tumour mutanome</td>
<td>Peer reviewed</td>
<td>Terry Fox Research Institute</td>
<td>$450,000</td>
<td>2012/09</td>
<td>2015/08</td>
</tr>
<tr>
<td>Dr. R Auer</td>
<td>A Translational Approach to Targeting Natural Killer Cells in the Perioperative Period with Innovative Cancer Therapies</td>
<td>Peer reviewed</td>
<td>Early Researcher Award, Ministry of Research and Innovation</td>
<td>$150,000</td>
<td>2012/09</td>
<td>2016/09</td>
</tr>
<tr>
<td>Dr. RP Boushey</td>
<td>The evaluation of a rectal cancer decision aid and the factors influencing its implementation in clinical practice.</td>
<td>Peer reviewed</td>
<td>Physicians Services Incorporated Foundation (PSI)</td>
<td>$20,000</td>
<td>2014/02</td>
<td>2015/05</td>
</tr>
<tr>
<td>Dr. J Mamazza</td>
<td>A pilot study to assess the feasibility of a future randomized, double-blinded, placebo-controlled trial to investigate the role of intra-peritoneal Ropivacaine in gastric bypass surgery</td>
<td>Peer reviewed</td>
<td>Department of Surgery</td>
<td>$25,000</td>
<td>2013</td>
<td>2014</td>
</tr>
<tr>
<td>Dr. A Neville</td>
<td>Health care costs and utilization after gastric bypass versus sleeve gastrectomy.</td>
<td>Peer reviewed</td>
<td>Department of Surgery</td>
<td>$20,000</td>
<td>2015</td>
<td>2016</td>
</tr>
<tr>
<td>Dr. G Martel</td>
<td>The PRICE trial: phlebotomy resulting in controlled hypovolemia to prevent blood loss in major hepatectomy</td>
<td>Peer reviewed</td>
<td>Canadian Surgical Research Fund Grants</td>
<td>$10,000</td>
<td>2015</td>
<td>2016</td>
</tr>
</tbody>
</table>
## Co-Pricipal Investigators

<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. A Arnaout</td>
<td>Feasibility of using an Integrated Consent Model to Compare Two Standard of Care Regimens for Primary Prophylaxis of Taxotere/Cyclophosphamide-Induced Febrile Neutropenia.</td>
<td>Peer reviewed</td>
<td>Ottawa Hospital—Department of Medicine Patients Safety</td>
<td>$30,000</td>
<td>2014/01</td>
<td>2015/12</td>
</tr>
<tr>
<td>Dr. A Arnaout</td>
<td>Innate immune evasion by the cancers of the blood and breast</td>
<td>Peer reviewed</td>
<td>Canadian Cancer Society Research Institute (CCSRI) Innovation to Impact</td>
<td>$448,071</td>
<td>2015/06</td>
<td>2018/06</td>
</tr>
<tr>
<td>Dr. R Auer</td>
<td>The Thoracic Peri-Operative Integrative Surgical Care Evaluation (POISE) Trial</td>
<td>Peer reviewed</td>
<td>Lotte and John Hect</td>
<td>$3,853,888</td>
<td>2014/09</td>
<td>2025/08</td>
</tr>
<tr>
<td>Dr. R Auer</td>
<td>Biotherapeutics for Cancer Treatment (BioCanRx)</td>
<td>Peer reviewed</td>
<td>National Centers of Excellence</td>
<td>$25,000,020</td>
<td>2015/01</td>
<td>2020/01</td>
</tr>
<tr>
<td>Dr. RP Boushey</td>
<td>Patient health outcomes and professional practice following the implementation of a breast community of practice model.</td>
<td>Non-peer reviewed</td>
<td>ICES and King Saud University</td>
<td>$20,000</td>
<td>2013/04</td>
<td>2015/04</td>
</tr>
<tr>
<td>Dr. I Raiche</td>
<td>Impact of In Situ Simulated Crisis Resource Management Team Training on routine Teamwork Behavior in the Operating Room</td>
<td>Peer reviewed</td>
<td>Association Innovation Medical Education</td>
<td>$19,870</td>
<td>2015/01</td>
<td>2015/04</td>
</tr>
<tr>
<td>Dr. J Lampron</td>
<td>eHandover: Improving the quality and safety of patient care handover with an electronic tool</td>
<td>Peer reviewed</td>
<td>TOHAMO</td>
<td>$100,000</td>
<td>2015/01</td>
<td>2016/12</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Dr. J Mamazza</td>
<td>Home Monitoring after Bariatric Surgery and Early Discharge</td>
<td>Peer reviewed</td>
<td>Physicians Services Inc.</td>
<td>$169,952</td>
<td>2015/04</td>
<td>2017/03</td>
</tr>
<tr>
<td>Dr. J Mamazza</td>
<td>Comparative health care utilization and costs between patients undergoing Roux-en-Y gastric bypass and Sleeve gastrectomy for morbid obesity</td>
<td>Peer reviewed</td>
<td>Department of Surgery</td>
<td>$25,000</td>
<td>2015/01</td>
<td>2015/12</td>
</tr>
<tr>
<td>Dr. C Nessim</td>
<td>Ottawa Tumour Tissue Resource Core Facility (OTTR) for melanoma and breast cancer</td>
<td>Peer reviewed</td>
<td>Joan Sealy Trust for Cancer Research, Ottawa Hospital Research Institute</td>
<td>$83,000</td>
<td>2013/11</td>
<td>2015/11</td>
</tr>
<tr>
<td>Dr. G Martel</td>
<td>Characterization of pancreatic cysts</td>
<td>Peer reviewed</td>
<td>Joan Sealy Trust for Cancer Research, Ottawa Hospital Research Institute</td>
<td>$30,000</td>
<td>2015</td>
<td>2016</td>
</tr>
<tr>
<td>Dr. G Martel</td>
<td>The PRICE trial: phlebotomy resulting in controlled hypovolemia to prevent blood loss in major hepatectomy</td>
<td>Peer reviewed</td>
<td>Canadian Surgical Research Fund Grants</td>
<td>$10,000</td>
<td>2015</td>
<td>2016</td>
</tr>
</tbody>
</table>
### Collaborators

<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. A Arnaout</td>
<td>Promoting implementation of evidence-based care</td>
<td>Peer reviewed</td>
<td>Canadian Institute for Health Research (CIHR) Foundation</td>
<td>$2,128,006</td>
<td>2015/02</td>
<td>2022/02</td>
</tr>
<tr>
<td>Dr. A Arnaout</td>
<td>Towards better outcomes for young women with breast cancer: A pan Canadian Collaborative.</td>
<td>Peer reviewed</td>
<td>Canadian Breast Cancer Foundation and CIHR</td>
<td>$5,696,303</td>
<td>2014/08</td>
<td>2019/09</td>
</tr>
<tr>
<td>Dr. I Raiche</td>
<td>Exploring Advances in General Surgery Training How Best to Integrate Simulation into the Curriculum?</td>
<td>Peer reviewed</td>
<td>Royal College for Physicians and Surgeons of Canada</td>
<td>$9,065</td>
<td>2014/07</td>
<td>2015/06</td>
</tr>
</tbody>
</table>

### Salary Awards

<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. H Moloo</td>
<td>Communication Training of the Multidisciplinary Surgical Team to Improve Quality of Care</td>
<td>Personal award</td>
<td>Walter C Mackenzie Fellowship in Surgery</td>
<td>$15,000</td>
<td>2014/04</td>
<td>2015/05</td>
</tr>
</tbody>
</table>
DIVISION OF NEUROSURGERY

FACULTY MEMBERS

- Dr. Howard Lesiuk (Division Head)
- Dr. Fahad Alkherayf
- Dr. Charles Agbi
- Dr. Vasco DaSilva
- Dr. Richard Moulton
- Dr. Adam Sachs
- Dr. John Sinclair
- Dr. Eve Tsai

NEW APPOINTMENTS

Dr. Richard Moulton became Program Director, succeeding Dr. Charles Agbi who held the position for many years.

FELLOWSHIPS & FELLOWS

- Dr. Abdullah Arab - Complex spine fellow
- Dr. S. Al-Thaqfi - CyberKnife SRS fellow
- Dr. B. Vellayappan - CyberKnife SRS fellow
- Dr. J. McLeann - CyberKnife SRS fellow
- Dr. Homoud Aldahash – Skull base fellow
- Dr. Othman Alhhammad – Skull base fellow
- Dr. Faisal Farrash – Peripheral Nerve Surgery Fellow
SUBSPECIALTY TRAINING

Dr. Eve Tsai


NEW SERVICES SURGICAL & CLINICAL

» Multidisciplinary (ENT and Neurosurgery) Skull base clinics
» Multidisciplinary (Endocrinology and Neurosurgery) Pituitary clinics

VOLUNTEER WORK

The Division of Neurosurgery has an agreement in principle for a funded chair in Neurosurgery.

Dr. Adam Sachs

» Continuing fundraising activities through the Parkinson Society

Dr. John Sinclair

» Ongoing fundraising for CyberKnife research
» 5-ALA technology fundraising through the Ottawa Regional Cancer Foundation

Dr. Eve Tsai

» Spinal cord regeneration project fundraising

Multiple division members have volunteered time and expertise to support fundraising efforts at the OHRI and ORCF.
PLANS FOR THE FUTURE

Dr. Fahad Alkherayf

» Establish a skull base and minimally invasive cranial surgery surgical skill lab.

Dr. John Sinclair

» Development and implementation of 5-ALA gliolan surgical technique.
» Development of process to shorten length of hospital stay for awake craniotomy patients.
» Development of brain tissue registry and tumour bank.
» Development of standard of care protocols for brain tumour patients in conjunction with TOHCC.
» Development of CV fellowship program.
» Development of combine cranial-maxillofacial and neurosurgery clinic for reconstructive case patients.
» Ongoing and new research.

Dr. Eve Tsai

» Continue to supervise Clinical, Research, staff, Students and Volunteers.
» Apply for funding to support both the Clinical and Basic Research Projects.

Dr. Adam Sachs

» To expand the role of deep brain stimulation in the management of functional neurologic disorders.

VISITING PROFESSORS

November 6–7, 2014—Annual Michael T Richard Visiting Professorship

Dr. R. John Hurlbert MD, PhD, FRCSC, FACS

Dr. Hurlbert is an Associate Professor of Neurosurgery at the University of Calgary.

His topics for this event were Clinical Research and Guidelines for the Management of Acute SCI-Updated.
April 16–17, 2015—The 11th Annual Dr. Brien Benoit Visiting Professorship

Dr. Randall Chesnut MD, FCCM, FACS

Dr. Chesnut is based at Harborview Medical Centre, University of Washington.

His topics for this event were What’s Wrong with the Current Management of Traumatic Brain Injury? and Where Do We Go Now in Acute Severe Traumatic Brain Injury Management?

SPECIAL EVENTS & HIGHLIGHTS

The Division of Neurosurgery hosted the 3rd Annual Ottawa Neurosurgery Review Course, which has become the official review course of the Canadian Neurosurgical Society.

Dr. John Sinclair

» Training and fundraising for development of 5-ALA Gliolan procedure.
» CNS Boston—Oct 2014

Dr. Fahad Alkherayf

» 2014 Member of the executive committee AANS/CNS Joint Section on Neurotrauma and Critical Care
» 2015 Grant reviewer, AANS/CNS Joint Section on Neurotrauma and Critical Care
» 2014 Scientific reviewer for Canadian Journal of Neurological Sciences (CJNS)
» 2014 Member of editorial committee for Clinician Investigator Trainee Association of Canada

Courses Taught

» 2015 Spine Surgery Review Course, 2015, University of Ottawa Skills and Simulation Centre/ chair
» 2015 3rd Neurosurgery Annual Review Course, 2015, University of Ottawa Skills and Simulation Centre/ co-chair
» 2014 Integration of Wisdom and Pearls into the Advanced Practice Provider’s Practice, 2014, Congress of Neurological Surgeons, Boston
» 2014 Advanced Techniques in Spine Surgery, 2014, University of Ottawa Skills and Simulation Centre/ co-chair
CME

» 2014 Advanced Endoscopic Skull Base and Pituitary Surgery May, 2014 , Weill Cornell Medical College, New York, USA

Dr. Eve Tsai

» Fundraising for the AANS/ CNS Joint section on Neurotrauma and Critical Care Depuy/Synthes Award for Resident Research on Spinal Cord and Spinal Column Injury for the AANS Annual meeting
» AANS/ CNS Joint section on Neurotrauma and Critical Care Depuy/Synthes Award for Resident Research on Brain Injury for the AANS annual meeting
» AANS/ CNS Joint section on Neurotrauma and Critical Care Depuy/Synthes Award for Resident Research on Brain Injury for the CNS annual meeting
» Codman Neurotrauma Research Fellowship
» Fundraising for the SABRe chair

SPECIAL PRESENTATIONS & INVITED LECTURESHPES

Dr. Fahad Alkherayf

» Feb 2015—Tumors of the Sellar Region and Parasellar Region, The Ottawa Neurosurgery Review Course, Ottawa, Ontario
» Feb 2015—Meningiomas, The Ottawa Neurosurgery Review Course, Ottawa, Ontario

Dr. Charles Agbi

» Feb 2015—Pituitary Tumors, The Ottawa Neurosurgery Review Course, Ottawa, Ontario
» Feb 2015—Pineal Region Tumors, The Ottawa Neurosurgery Review Course, Ottawa, Ontario
Dr. Howard Lesiuk

» Feb 2015—Carotid Stenosis, The Ottawa Neurosurgery Review Course, Ottawa, Ontario

Dr. Richard Moulton

» Feb 2015—Peripheral Nerve Entrapment Syndromes and Management, The Ottawa Neurosurgery Review Course, Ottawa, Ontario

Dr. Adam Sachs

» Feb 2015—Neurophysiology and Pathophysiology of Movement Disorders, The Ottawa Neurosurgery Review Course.


» Nov 2014—Instantaneous filtering of visual information by prefrontal cortex neural assemblies, Society for Neuroscience 44th Annual Meeting, Washington DC

» Nov 2014—Neural tuning affects spike-rate correlations during spatial working memory task, Society for Neuroscience 44th Annual Meeting, Washington DC


Dr. John Sinclair


» June 2015—Neurosurgery SEAD (Surgical Exploration & Discovery) program supervision and presentation

Dr. Eve Tsai

» Leadership and Research. Rotary Club, June 1, 2015

» Tsai, EC The 2015 AANS Advancements in Neurotrauma Care session May 5, 2015 from 2:00–5:30 Invited Speaker for International Conference. Washington, District of Columbia, United States


» Tsai, EC AOSNA Acute SCI Clinical Guidelines/Systematic Review Projects (Thu 03/05/2015 09:00AM) AANS/CNS Spine Section, Phoenix, Arizona Invited Faculty—Invited Speaker. Phoenix, Arizona, United States

HONOURS & AWARDS

» Republic of China First Overseas Chinese Outstanding Youth Award—International Award, 2015

» Supervisor for RUNN Course Resident Award to Diana Ghinda, Ottawa Hospital, Department of Surgery, 2015

» For the third time in four years, named one of Canada’s Top 25 Most Influential Women by Women of Influence magazine. Dr. Tsai has again been cited for her work as a neurosurgeon, and for using research to improve patient care and medical outcomes, 2014
PUBLICATIONS

The Division of Neurosurgery made the following contributions to the published literature in 2014–2015:

17 Publications and 3 book chapters. These selected publications represent those of greatest impact:


<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>E Tsai</td>
<td>Translational Potential of Promising Animal Therapies to Humans for Spinal Cord Injury Repair</td>
<td>Non Peer Reviewed</td>
<td>Ottawa Hospital Department of Surgery</td>
<td>$25,000</td>
<td>2015/01</td>
<td>2015/12</td>
</tr>
<tr>
<td>E Tsai</td>
<td>Rick Hansen Spinal Cord Injury Registry, SCI (Spinal Cord Injury) Solutions Network</td>
<td>Peer Reviewed</td>
<td>Rick Hansen Spinal Cord Injury Registry and SCI 60K per year to Eve Tsai since 2012</td>
<td>$60,000/yr</td>
<td>2009/04</td>
<td></td>
</tr>
<tr>
<td>E Tsai</td>
<td>A Double-Blinded—Controlled Study of AC105 in Patients with Acute Traumatic Spinal Cord Injury</td>
<td>Non Peer Reviewed</td>
<td>Acorda Therapeutics</td>
<td>$7,500</td>
<td>2014</td>
<td>2016</td>
</tr>
<tr>
<td>E Tsai</td>
<td>Minocycline in Acute Spinal Cord Injury</td>
<td>Non Peer Reviewed</td>
<td>Rick Hansen Institute</td>
<td>$48,000</td>
<td>2014/11</td>
<td>2015/10</td>
</tr>
<tr>
<td>D Iancu, C Lum, H Lesiuk, S Patro, A Quateen</td>
<td>Does Embolization with Larger coils lead to better Treatment of Aneurysms trial (DELTA)</td>
<td>Peer Reviewed</td>
<td>CHUM</td>
<td>$3K per patient</td>
<td>Pending REB approval</td>
<td>Unknown</td>
</tr>
<tr>
<td>C Lum, N Zakhari, R Thornhill, M Taljaard, M Santos, A Quateen, S Patro, D Iancu, H Lesiuk</td>
<td>Next-day discharge after elective intracranial aneurysm coiling: feasibility and safety.</td>
<td>Peer Reviewed</td>
<td>TOHAMO</td>
<td>$36,500</td>
<td>2015/10</td>
<td>2017</td>
</tr>
<tr>
<td>H Lesiuk, D Iancu, C Lum, M Santos, C Agbi, J Sinclair, R Moulton</td>
<td>CURES (Canadian Unruptured Aneurysms Endovascular vs. Surgery)</td>
<td>Peer Reviewed</td>
<td>CHUM</td>
<td>$3K per patient</td>
<td>2013/08</td>
<td>Unknown</td>
</tr>
<tr>
<td>D Iancu, H Lesiuk, C Lum, S Patro, T AlMansoori</td>
<td>COAST: Coiling of Aneurysms Smaller Than 5mm with Hypersoft</td>
<td>Industry</td>
<td>Microvention</td>
<td>$2,500 per enrolled</td>
<td>Pending REB approval</td>
<td>Unknown</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-------------------------</td>
<td>-------------------------------------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
</tbody>
</table>
Sachs’ share = $350,000                          | 2015/12     | 2015/12   |
| A Sachs                 | Optogenetic Control of Basal Ganglia in non-human primates          | Operating costs | Leslois Shaw Foundation | $50,000                                          | 2014/07     | 2015/06   |
| A Sachs                 | Reference frames for movement in the STN in Parkinson’s disease     | Fellowship support (for my post-doctoral fellow, Dr. Boulay) | Crabtree family—administered by Parkinson’s Research Consortium | $30,000                                          | 2014/07     | 2015/06   |
DIVISION OF ORAL & MAXILLOFACIAL SURGERY

FACULTY MEMBERS

» Dr. Kevin Butterfield (Division Head)
» Dr. H. Richard Biewald
» Dr. Karen Fung
» Dr. Adam Irvine
» Dr. Brent Johnson
» Dr. Sam Kucey
» Dr. Andrew Lee
» Dr. Jonathan Mayer
» Dr. Taylor McGuire
» Dr. Hassan Moghadam
» Dr. Jack Newton
» Dr. Michael Rapp
» Dr. Ann Roy
» Dr. Doug Smith
» Dr. Eleni Vichos
» Dr. William Wayne
» Dr. Ed Zeligman

NEW RECRUITS

» Dr. Andrew Lee

FELLOWSHIPS & FELLOWS

» Dr. Andrew Lee – Head and Neck Oncologic Surgery Fellowship
» Dr. Taylor McGuire – Facial Cosmetic Surgery Fellowship

NEW SERVICES SURGICAL & CLINICAL

Surgical management of obstructive sleep apnea.
PLANS FOR THE FUTURE

The division plans to continue with surgeon recruitment, in order to plan for future attrition within the division.

SPECIAL PRESENTATIONS & INVITED LECTURESHIPS

» Butterfield KJ. Oral Surgery for the Family Practitioner. 64th Annual Refresher Course for Family Physicians, University of Ottawa, Ottawa, ON May 1, 2015


» Butterfield KJ. Current Management of Craniofacial Trauma. University of Ottawa, Department of Otolaryngology/Head and Neck Surgery; Division of Plastic Surgery, March 27, 2015.

» Butterfield KJ. Current Management of Craniofacial Trauma, Department of Surgery, The Ottawa Hospital, March 25, 2015

PUBLICATIONS


PROSPECTIVE PROJECTS

Current Research—Quality of life changes associated with bimaxillary surgical advancement for the management of obstructive sleep apnea.
DIVISION OF ORTHOPAEDIC SURGERY

FACULTY MEMBERS

» Dr. Hesham Abdelbary
» Dr. Paul Beaulé (Division Head)
» Dr. Jacques Brunet
» Dr. Geoffrey Dervin
» Dr. Robert Feibel
» Dr. Braden Gammon
» Dr. Kathleen Gartke
» Dr. Wade Goftron
» Dr. Paul Kim
» Dr. Stephen Kingwell

» Dr. Karl-André Lalonde
» Dr. Peter Lapner
» Dr. Allan Liew
» Dr. Steven Papp
» Dr. Philippe Tran Nhut Phan
» Dr. W Pollock
» Dr. Eugene Wai
» Dr. Joel Werier
» Dr. Ross Wilkinson

APPOINTMENTS

Dr. Lalonde has been renewed as the Chair of Royal College of Canada Examination Committee for Orthopaedic Surgery and is the President of the Canadian Orthopaedic Foot & Ankle Society on a three year term. He is also the Director of electives with the Faculty of Medicine at The University of Ottawa. Dr. Lalonde was also co-author on the paper, Patient Expectation and Satisfaction as Measures of Surgical Outcome in End-Stage Ankle Arthritis: A Prospective Cohort Study of Ankle Joint Replacement vs Ankle Fusion that was awarded the IFFAS Takakura Prize for best clinical paper.

Dr. Moroz will Chair a new committee at the COA. The Canadian Orthopaedic Association Global Surgery Committee will address the burden of MSK disease and trauma in developing countries and disaster zones.

Dr. Papp has been appointed as the President of the Ontario Orthopaedic Association.

Dr. Lapner was promoted to Associate Professor with the University of Ottawa.

Dr. Beaulé was elected as member at large of the Canadian Orthopaedic Research Society of which he will be become President in 2019.
RETIREMENTS

Dr. Joe O’Neil retired in June 30, 2015 from a practice including total joint replacements and orthopaedic spine surgery. He was an orthopaedic surgeon with The Ottawa Hospital for over 31 years. During his career he was the recipient of the Jacques Robichon award for exemplary service to the Division of Orthopaedic Surgery in 2005 and received 9 Guardian Angel Awards from The Ottawa Hospital Foundation on behalf of grateful patients.

Dr. Don Chow retired October 2, 2015 from a practice of orthopaedic trauma and spine surgery. Dr. Chow has been with The Ottawa Hospital for over 27 years. He completed his Diploma of Sport Medicine in 1990 and has since given lectures at several American Orthopaedic Society for Sport Medicine and NHL Team Physicians Society sponsored Management of Hockey Injuries Courses. He has worked with elite athletes in numerous capacities including being the team physician for the Ottawa Senators since 1992 and their Head Physician since 2002.

Dr. Jacques Brunet will be retiring December 31, 2015 from a practice of orthopaedic foot and ankle surgery. Dr. Brunet was an orthopaedic surgeon with The Ottawa Hospital for over 35 years. He was an Associate Professor with the University of Ottawa for over 17 years and also has a Master in Science (Experimental Surgery).

FELLOWSHIPS & FELLOWS

» Marcel Abou-Assaly Pediatric Orthopaedics Dr. Lawton
» Abdulhakeem Alqarni Comprehensive Knee Dr. Dervin
» Khalid Alsheikh Trauma Dr. Liew
» Helen Anwander Adult Reconstruction Dr. Beaulé
» Abdullah Arab Spine Dr. Wai
» Philippe-Hugo Champagne Foot & Ankle Dr. Lalonde
» William Desloges Trauma Dr. Liew
» Payam Farhadnia Spine Dr. Wai
» Christopher Kennedy Upper Extremity/Foot & Ankle Drs Lapner/Lalonde
» Alexandre Page Adult Reconstruction Drs Beaulé/Kim
» Sadegh Saberi Musculoskeletal Oncology Dr. Werier
» Amardeep Singh Adult Reconstruction Drs Beaulé/Kim
» Alexander Tomic Musculoskeletal Oncology Dr. Werier
NEW SERVICES SURGICAL & CLINICAL

Physician Assistants

In order to improve patient care as well as facilitate discharge planning and address resident manpower issues our division has recruited two Physician Assistants one for each campus. This is supported by a grant from the Health Force Ontario Marketing and Recruitment Strategy.

Standardized Pathways for Outpatient Primary hip and knee replacements

With the help of Dr. John Penning, Catherine Adamson RN and Dr. Geoffrey Dervin, our clinical pathways for outpatient joint replacement are now available for all our patients.

PLANS FOR THE FUTURE

» Continuous Quality Improvement Initiative across Orthopaedics.
» Establishment of a Research Chair in Bone at the OHRI.
» Integrated Spine Unit

VISITING PROFESSORS

September 10, 2014—Trauma Visiting Professor – Dr. Claude Sagi, University of South Florida, Department of Orthopaedic Surgery and Sports Medicine

October 22, 2014—Adult Reconstruction Visiting Professor—Dr. Robert Trousdale, Mayo Clinic

November 27, 2014—Research in Progress Day Visiting Professor—Dr. Diane Nam, University of Toronto

April 02, 2015—Sports Medicine Visiting Professor—Dr. Robert Burks, University of Utah

April 30, 2015—Hans K. Uhthoff Research Day—Dr. Ginger Holt, Vanderbilt-Ingram Cancer Centre, Nashville, Tennessee
SPECIAL EVENTS/HIGHLIGHTS

In 2016 we will be celebrating our 50th Anniversary and as part of the celebrations we will be hosting several events including a golf tournament and a fundraising gala for the MSK Research Chair.

The 3rd National Capital Knee Symposium was held in September 2014 holding both didactic and motor skills sessions in the SIMS LAB.

A Minimally Invasive Spinal Fusion Course was held in May 2015.

The 11th Symposium on Joint Preserving and Minimally Invasive Surgery of the Hip was held in June 2015 holding both didactic and motor skills sessions in the SIMS LAB.

SPECIAL PRESENTATIONS & INVITED LECTURESHIPS

Dr. Eugene Wai

» Advisor to the Provincial Quality Based Procedures Programs for Low Back Pain and Utilization of MRI for Musculoskeletal Conditions

Dr. Paul Beaulé

» August 2014—Annual Mina Gerais Orthopaedic Association Meeting, Invited Speaker, Brazil.

Dr. Allan Liew

» November 2014—AONA Basic Principles Course, Faculty. Toronto, Ontario
» February 2015—Canadian Association of Sports and Exercise Medicine (CASEM) Annual Meeting, Multiligament Knee Injuries, Lecturer. Ottawa, Ontario
» April 2015—ATLS Course, Instructor. Ottawa, Ontario
» September 2014—National Capital Knee Symposium, Faculty. Ottawa, Ontario
Dr. Wade Gofton


» November 2014—National Capital Orthopaedic Association. Montabello, Quebec


Dr. Steven Papp

» May 2015—Trauma Review Course—National Resident Course May—Invited Lecturer Wrist Dislocations, Humeral Shaft, Approaches to the Upper Extremity


» October 2014—Orthopaedic Trauma Association Annual Meeting Resident Course -Invited Lecturer, Ankle Fracture Management, Calcaneus Fracture Management, Talus Fracture Management

» October 2014—Eastern Ontario Regional Trauma Conference Invited Lecturer Traumatic Amputation Management

HONOURS/AWARDS


In 2014 Dr. Wade Gofton received the Dr. Meridith Marks Educator Award for Innovation and Scholarship in Medical Education, University of Ottawa. This is the first time the honour was awarded to a surgeon.
In 2015, The Canadian Orthopaedic Foundation awarded its 2014 J. Edouard Samson Award to Dr. Paul E. Beaulé, The Ottawa Hospital, University of Ottawa. The premier award for orthopaedic research in Canada. Dr. Beaulé’s research project is titled Understanding the Etiology and Cause of Osteoarthritis (OA) of the hip: A multi-disciplinary approach.

**PUBLICATIONS**

The Division of Orthopaedic Surgery made the following contributions to the published literature in 2014–15: 87 publications. These selected publications represent those of greatest impact:


**Ongoing Clinical Research**

A Multicentre, Randomized Trial of Far Cortical Locking versus Standard Constructs for Acute, Displaced Fractures of the Distal Femur treated with Locked Plate Fixation

Reamer Irrigator Aspirator versus Autogenous Iliac Crest bone graft for the Treatment of Non-Unions: A Multi-Centre Randomized Controlled Trial

A Multicentre, Randomized Trial of Conservative Treatment versus Operative Plate Fixation for Acute, Displaced Fractures of the Distal Clavicle

A Randomized Clinical Trial Comparing Open Reduction and Internal Fixation with Non-Operative Treatment of Isolated Ulnar Shaft Fractures

Operative versus Non-operative Treatment of Acute Unstable Chest Wall Injuries: A Multi Centered Randomized Controlled Trial
A Multicentre, Randomized Trial of Simple Decompression versus Anterior Transposition of the Ulnar Nerve for Acute, Displaced Fractures of the Distal Humerus treated with Plate Fixation

A Randomized Prospective Trial Comparing Operative and Non-Operative Treatment of Humeral Shaft Fractures

PROSPECTIVE PROJECTS

Continuous Quality Improvement for the division lead by Dr. Kathleen Gartke (Clinical) and Stephane Poitras PhD (Scientific)

Spine

1. Inter-relationship between obesity, systemic inflammation, prediabetes, exercise and low back pain
2. Real-time feedback to drive CQI in spinal surgery
3. Artificial intelligence to assess large databases
4. Canadian Spine Society Registry
5. Rick Hansen Spinal Cord Injury Registry

SERVICE SUMMARIES

Adult Reconstruction

Our group of six surgeons continue to provide care at all three campuses as well as running the total joint program at the Kemptville District Hospital. The total volume of primary joints is just over 1400 with over 100 revision procedures. Our out-patient Joint Program continues to grow with over 100 patients being discharged the day of surgery. This has been done in close collaboration with the Department of Anesthesia which has also ran a parallel study looking at Patient Home Monitoring.

The adult reconstruction group continues to maintain its leadership in education with participation in major education events at both the Canadian Orthopaedic Association and American Association of Hip and Knee Surgeons with participation at major symposiums and lectures on rapid recovery after joint replacement, on managing the learning curve in Orthopaedics as well as joint preserving surgery of the hip. We were also awarded a TOHAMO grant of over $95,000 to study the impact on pre-rehabilitation on the outcome of primary hip and knee replacement.
Spinal Surgery

The Spinal Surgery Program (SSP) is based at The Ottawa Hospital (TOH) Civic Campus and provides all spinal surgical care (assessment, surgery, postoperative follow-up) for degenerative, traumatic, infectious, and neoplastic spinal conditions for the Champlain LHIN. Services are provided by surgeons from the Division of Neurosurgery and the Division of Orthopaedic Surgery and includes 6 fellowship trained advanced spinal surgeons, 2 research assistants, and 1 physician assistant.

Clinical Care

The implementation of a Physician Assistant Triage Clinic has been created and has begun to reduce the wait times and we hope to continue to reduce wait times by developing a centralized wait list for new consults. SSP is also implementing a CQI program incorporating not only adverse events, but also patient satisfaction and functional outcomes with real time feedback that is adjusted for case mix.

Research

The SSP has developed a national to international reputation in research, with 3 staff with PhD; 1 with a PhD submitted and 2 with MScs (Drs. Wai and Alkerayf) performing basic science and clinical research.

Musculoskeletal Oncology

Our multidisciplinary sarcoma unit has been actively involved with Cancer Care Ontario’s reorganization of Sarcoma services in Ontario and has been designated as one of three host Sarcoma centers of excellence in Ontario. Surgical members of The Ottawa Hospital Sarcoma Program include Dr. Hesham Abdelbary (orthopaedic oncology), Dr. Rebecca Auer (general surgery oncology), Dr. Carolyn Nessim (general surgery oncology), and Dr. Joel Werier (orthopaedic oncology). New clinical guidelines for desmoid tumours and for surgical margins and handling of soft tissue sarcoma have been recently published through CCO’s Program in Evidence Based Care.

The Ottawa Bone Oncology Program collaborative with basic scientists (Mark Clemons/Christina Addison) at the OHRI continues to look into mechanisms and treatment for metastatic bone disease.

The sarcoma oncolytic virus program (Abdelbary, Auer, Diallo, Werier) has been strengthened with renewed funding from our community sarcoma foundation partner Valerie’s Flutter Foundation.
From an educational perspective there are weekly teleconferenced sarcoma teaching rounds as well as weekly multidisciplinary sarcoma conferences and bi-weekly pediatric tumour review boards. There is an annual MSK oncology journal club for orthopaedic residents as well as multidisciplinary journal clubs. An orthopaedic oncology fellowship program continues to be a very positive addition to the unit. The national week long Canadian Orthopaedic Association Basic Science Course for orthopaedic residents is co-organized by Dr. Joel Werier. Dr. Werier is Chair of The Ottawa Hospital Sarcoma Program.

**Postgraduate Orthopaedic Education**

**Program Director:** Dr. Joel Werier

The Post Graduate Residency Program is the core of the academic environment for the Division of Orthopaedic Surgery. We currently have 30 residents and mark the graduation from the program of Drs. Markian Pahuta, Gillian Bayley, Ian MacNiven, Kelly Hynes, Matthew MacEwan, Travis Marion, and Scott McGuffin. Dr. Markian Pahuta demonstrated strong leadership as Chief Resident.

The division continues to attract both Canadian and international fellows to various subspecialties. The 2014-15 academic year saw 9 fellows distributed among the subspecialties of adult reconstruction, upper extremity, trauma, spine, oncology, comprehensive knee, and foot and ankle. The 2014-15 visiting professor invitees were Dr. Robert Trousdale (adult reconstruction), Dr. Claude Sagi (trauma), Dr. Diane Nam (research), Dr. Robert Burks (sports medicine) and Dr. Ginger Holt (oncology) as the Hans K. Uhthoff professor.

The Ottawa Orthopaedic Orientation (Bootcamp) is an innovative program for PGY1 residents accelerating core competencies and skills. This program continues to evolve and has been very well received. Dr. Peter Lapner continues as Director of Research for the 2014–2015 academic year, guiding our resident research program.

**Sports Medicine**

- Several orthopaedic surgeons within the division continue to work closely with multiple sports medicine physicians throughout the city in taking on cases that have failed conservative management. These cases span the entire subspecialty spectrum from the foot and ankle, knee, hip, shoulder and elbow and are included in those areas of activity, detailed elsewhere in this report.

- Dr. Robert Burks from the University of Utah served as the Sports Medicine Visiting Professor which is an annual highlight for the Sport Medicine group. He shared his professional and personal insights while fielding a variety of questions from residents as well as surgical demonstrations.
Drs. Johnson and Dervin were co-chairs for the 3rd National Capital Knee Symposium, which took place September 18 and 19, 2014. Surgeons from across Canada took part with faculty from across the country and the United States.

**Trauma**

The Orthopaedic Trauma Service continues its mandate as a centre of excellence in the treatment of traumatic musculoskeletal injuries with multiple areas of activity.

**Clinical care**

The volume of patients treated through the "Walking Wounded" program has steadily increased, allowing for the surgical treatment of acute musculoskeletal injuries expeditiously while allowing patients all the benefits of out-patient care.

**Research**

The group is involved in several multicentre randomized clinical trials in conjunction with the Canadian Orthopaedic Trauma Society (COTS).

**Education**

Drs. Khalid Alsheikh and William Desloges, successfully completed their trauma fellowships. The staff members have been actively involved as teaching faculty at national and international courses, as well as presenting symposiums at trauma society meetings. Dr. Allan Liew participated in the Faculty Education Program at the AO Education Institute.

**Foot & Ankle**

The group provides a comprehensive tertiary level program for foot and ankle pathologies ranging from forefoot deformities to neuropathic ankle fractures. The ankle arthroplasty program is growing and attracting patients from across Ontario. The role of ankle arthroscopy has also been evolving and our group continues to offer this expertise to our community. The demand for foot and ankle surgical services in the Eastern Ontario region is sustained and timely care of these patients continues to be a challenge, both locally and nationally. On the research front, collaborative efforts continue with the Canadian Orthopaedic Foot and Ankle Surgeons (COFAS). Ankle arthroplasty and ankle fusion patients continue to be enrolled in a national prospective study comparing outcomes of both procedures. Studies are ongoing comparing various bone graft substitute alternatives to autologous bone graft for hindfoot and ankle fusions. We are also enrolling patients in a study assessing optimal treatment of patients with osteochondral fractures of the talus. Bi-weekly foot and ankle conferences are held at the General campus.
On the national stage, Dr. Lalonde has started his mandate as President of the Canadian Orthopaedic Foot and Ankle Society since June 2015. He was involved in teaching at the Annual COFAS Foot and Ankle Symposium and also continues his involvement as a Royal College Examination Chair for Orthopaedic Surgery. Dr. Gartke has also taken on a leadership role in establishing our divisional CQI program.

**RESEARCH GRANTS**

<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. P Beaulé</td>
<td>Pre-op Exercise prior to Joint Replacement</td>
<td>Grant-Peer</td>
<td>TOHAMO</td>
<td>$98,000</td>
<td>2015</td>
<td>2017</td>
</tr>
<tr>
<td>Drs. P Lapner, A Sheikh</td>
<td>Diagnostic Accuracy of Synovial Biopsy for Implant-Related Shoulder Infections</td>
<td>Grant-Peer</td>
<td>Canadian Orthopaedic Association</td>
<td>$20,000</td>
<td>2015</td>
<td>2017</td>
</tr>
<tr>
<td>Dr. B Gammon</td>
<td>Validation of an Arthrometer for Assessment of Translation and Instability at the DRUJ</td>
<td>Grant-Peer</td>
<td>TOH Department of Surgery</td>
<td>$60,000</td>
<td>2014</td>
<td>2017</td>
</tr>
<tr>
<td>Dr. KA Lalonde</td>
<td>Augment Injectable Bone Graft vs Autologous Graft RCT</td>
<td>Industry</td>
<td>Biomimetics</td>
<td>$90,000</td>
<td>2012/09</td>
<td>2017/09</td>
</tr>
<tr>
<td>Drs. P Lapner, JW Pollock, K Hynes, D Drosdowech, G Athwal, B Toye, G Walsh, D Nam, R Holtby</td>
<td>Diagnostic Accuracy of Synovial Biopsy for Implant-Related Shoulder Infections</td>
<td>Grant-Peer</td>
<td>TOH Department of Surgery</td>
<td>$25,000</td>
<td>2014</td>
<td>2015</td>
</tr>
<tr>
<td>Drs. I Catelas, P Beaulé, S Sad</td>
<td>Identification and modulation of molecular mechanisms involved in the biological response to wear and corrosion of hip implants</td>
<td>Grant-Peer</td>
<td>CIHR</td>
<td>$525,000</td>
<td>2014</td>
<td>2018</td>
</tr>
<tr>
<td>Drs. P Lapner, G Athwal, R Balyk, P MacDonald, G Stranges</td>
<td>Trephination in Arthroscopic Cuff Repair</td>
<td>Grant-Peer</td>
<td>TOHAMO</td>
<td>$98,000</td>
<td>2013</td>
<td>2015</td>
</tr>
<tr>
<td><strong>Investigator(s)</strong></td>
<td><strong>Title</strong></td>
<td><strong>Funding Type</strong></td>
<td><strong>Funding Source</strong></td>
<td><strong>Amount of Funding</strong></td>
<td><strong>Start Date</strong></td>
<td><strong>End Date</strong></td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>--------------------</td>
<td>-----------------------</td>
<td>---------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Drs. G Trudel, P Lapner, JW Pollock, HK Uthoff, O Laneuville, A Sheikh</td>
<td>Autologous Stem Cell Augmentation in Arthroscopic Cuff Repair</td>
<td>Grant-Peer Reviewed</td>
<td>CIHR</td>
<td>$866,000</td>
<td>2010</td>
<td>2015</td>
</tr>
<tr>
<td>Dr. P Beaulé</td>
<td>Analysis OF PROFEMUR TL Implant Migration and Wear of the A-Class® Highly Cross-Linked Polyethylene Total Hip Replacement System</td>
<td>Industry</td>
<td>Microport Orthopaedics Inc.</td>
<td>$47,000</td>
<td>2015</td>
<td>2016</td>
</tr>
<tr>
<td>Dr. P Beaulé</td>
<td>Analysis Of Clinical Outcome and Implant Migration of the Cementless Tri-Fit® Total Hip Replacement System</td>
<td>Industry</td>
<td>CORIN Group PLC</td>
<td>$87,000</td>
<td>2014</td>
<td>2019</td>
</tr>
<tr>
<td>Drs. P Beaulé, P Kim</td>
<td>Post Market Clinical Follow-Up Study protocol for PROFEMUR TL Modular Femoral Stem</td>
<td>Industry</td>
<td>Microport Orthopaedics Inc.</td>
<td>$187,000</td>
<td>2014</td>
<td>2026</td>
</tr>
<tr>
<td>Drs. P Beaulé, P Kim</td>
<td>Follow-Up Study protocol for Conserve Press-Fit Femoral Components</td>
<td>Industry</td>
<td>Microport Orthopaedics Inc.</td>
<td>$184,000</td>
<td>2014</td>
<td>2026</td>
</tr>
<tr>
<td>Drs. P MacDonald, P Lapner</td>
<td>Biceps Tenodesis vs Tenotomy in the Treatment of Lesions of the Long Head of Biceps Brachii: Randomized Clinical Trial</td>
<td>Industry</td>
<td>ConMed Linvatec Canada Research</td>
<td>$15,000</td>
<td>2013</td>
<td>2014</td>
</tr>
<tr>
<td>Drs. M Nganbe, P Beaulé</td>
<td>In Vitro Simulation of Modular Neck Fracture, wear, corrosion and distraction</td>
<td>Grant</td>
<td>Mitacs</td>
<td>$30,000</td>
<td>2013</td>
<td>2014</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Drs. P Kim, P Beaulé, H Abdelbary</td>
<td>A Prospective, post market, multi-center study of the outcomes of the Restoration ADM X3 Acetabular System</td>
<td>Industry</td>
<td>Styker Inc.</td>
<td>$180,000</td>
<td>2013</td>
<td>2025</td>
</tr>
<tr>
<td>Drs. P Beaulé, M Nganbe</td>
<td>In Vitro Simulation of Modular Neck Fracture, wear, corrosion and distraction</td>
<td>Industry</td>
<td>Wright Medical Technology / Microport Orthopaedics Inc.</td>
<td>$99,400</td>
<td>2013</td>
<td>2015</td>
</tr>
<tr>
<td>Drs. P Beaulé, H Abdelbary, L Dinh, R Feibel, W Gofton, P Kim, P Thurston, JM Wilkinson</td>
<td>A Randomized Clinical Trial of a Modular Cementless Acetabular Metal on Poly Component versus a Monoblock Cementless Titanium Shell with Ceramic on Ceramic Bearing and CORAIL Stem: A Bone Mineral Density Study</td>
<td>Industry</td>
<td>Johnson and Johnson Medical Products</td>
<td>$334,000</td>
<td>2011</td>
<td>2014</td>
</tr>
<tr>
<td>Drs. P Beaulé, P Thurston</td>
<td>Mobility Assessment of a Dual Mobility Hip Arthroplasty for Osteoarthritic Hip: Feasibility for a Prospective Randomized Controlled Trial</td>
<td>Industry</td>
<td>Medacta International SA Strada Regina</td>
<td>$97,000</td>
<td>2011</td>
<td>2014</td>
</tr>
</tbody>
</table>
DIVISION OF PLASTIC SURGERY

FACULTY MEMBERS

» Dr. Murray Allen (Division Head)
» Dr. Ronnie Borsuk
» Dr. Kirsty Boyd
» Dr. Mario Jarmuske

» Dr. Danny Peters
» Dr. Gloria Rockwell
» Dr. Lloyd Van Wyck
» Dr. Jing Zhang

NEW APPOINTMENTS & DEPARTURES

» Dr. Ronnie Borsuk now based in Winchester Hospital
» Dr. Moein Momtazi as of September 2015
» Dr. Kevin Cheung as of August 2015
» Dr. Mary Jean Duncan outgoing Chief at CHEO

FELLOWSHIPS & FELLOWS

» Dr. Hussain Alsaffar head and neck surgery in ENT working with Dr. Allen.

NEW SERVICES SURGICAL & CLINICAL

Beginning of the rapid access Plastic Surgery clinic for the General site.
VISITING PROFESSORS

» Dr. Susan MacKinnon St Louis Mo.
» Dr. Eduardo Montag Sao Paulo Brazil
» Dr. Robert Shenker Waterloo On.
» Dr. Ian MacArthur Miami Fla.
» Dr. Ida Fox St Louis Mo.
» Dr. John Harper Houston Tx.

SPECIAL EVENTS & HIGHLIGHTS

» Dupuytren’s Day, combined Ortho and Plastic training session for residents and staff
» Breast Reconstruction Awareness day
» CHEO teddy bear picnic
» Senior residents conference 2015 (3 days)

HONOURS & AWARDS

» Dr. Mary Jean Duncan—divisional teaching award
» Drs. Rockwell and Zhang appointed as clinician investigators in the Clinical Epidemiology Program (CEP) at the Ottawa Hospital Research Institute (OHRI)
PUBLICATIONS

The Division of Plastic Surgery made the following contributions to the published literature in 2014–2015: 25 publications. These selected publications represent those of greatest impact:


PROSPECTIVE PROJECTS

» On-going dedication to the annual senior resident’s conference and BRA day.
» Research in breast reconstruction outcomes.
» Health advocacy amongst medical students and residents.
» Community Service in Surgery—Outreach beyond the Operating Room.
» Anti-microbial scaffold materials for cutaneous wound healing.
» The role for early non-operative treatment of prominent ears (to negate the need for surgery).
» Peroneal Nerve Decompression at Multiple Sites.
» Concomitant Release of Guyon’s Canal with Ulnar Nerve Transposition.
» Hierarchical Scratch Collapse Test.

uofoplasticsurgery.com
DIVISION OF THORACIC SURGERY

FACULTY MEMBERS

Faculty

» Dr. Sebastien Gilbert (Division Head)
» Dr. Donna Maziak
» Dr. Andrew Seely
» Dr. Farid Shamji
» Dr. Sudhir Sundaresan
» Dr. Patrick James Villeneuve

FELLOWSHIPS & FELLOWS

» Dr. Ramzi Addas
» Dr. Daniel French
PLANS FOR THE FUTURE

The vision of the Division of Thoracic Surgery is to deliver patient care that is compassionate, timely, and state-of-the-art. Our team has demonstrated unwavering assiduity in the pursuit of patient care excellence. Our surgeons, nurses, administrative staff, and other health care professionals have been recognized by patients on innumerable occasions, year after year, for their empathy and compassion. This achievement has been corroborated by the results of division specific patient surveys demonstrating satisfaction levels comparable to top hospitals in America. We have long recognized that patient experience may be influenced by postoperative outcomes. For the past several years, the Division of Thoracic Surgery has pioneered the development of an information technology system that allows point of care documentation of postoperative outcomes and live, surgeon-specific reporting. The Thoracic Surgery Quality monitoring, Information management, and Clinical documentation (TSQIC) system, developed by Dr. Andrew Seely and our research team, provides up-to-date reporting, and has been effectively used to improve outcomes following major thoracic surgical procedures.

It is upon the angular stone of compassionate care that we continue to build our strategic plan for patient care excellence which is currently focused on timely access to cancer care. Under the leadership of Dr. Maziak and Dr. Villeneuve, our Lung Cancer Transformation team has been successful in significantly decreasing wait times for patients with thoracic malignancies. We look forward to providing our Champlain LHIN patients with the most efficient flow of care between diagnosis and definitive treatment in the province. As we get closer to our objective, we also look to future opportunities to bring state-of-the-art therapies to our patients. We have successfully integrated digital pleural drainage technology into clinical practice. We have laid a path to further streamline the care of patients with chest drains, and we are hopeful that this will result in a more comfortable inpatient experience and shorter length of stay. Along these lines, we are working toward developing a program of natural orifice, incisionless esophageal surgery. Finally, we will continue to invest time and energy in basic science and clinical research, and strive to innovate and find solutions that will ultimately yield tangible benefits at the bedside.
VISITING PROFESSORS

Department of Surgery Grand Rounds
Visiting Professor May 2015

» Christian Finley MD, MPH FRCSC
» Thoracic Surgeon, St. Joseph’s Healthcare Hamilton
» Associate Professor of Surgery, McMaster University

Visiting Professorship June 2015

» Elie Fadel MD
» Professeur de chirurgie thoracique et cardiovasculaire à l’université Paris-Sud
» Chef de Service, Chirurgie Thoracique
» Chirurgien de l’hôpital Marie Lannelongue
» Directeur du Laboratoire de Recherche Chirurgicale

SPECIAL EVENTS & HIGHLIGHTS

International Multidisciplinary Oncology Conference 2015

In collaboration with the Institut Gustave-Roussy of Paris, the Division of Thoracic Surgery, in collaboration with Nuclear Medicine and Radiation Oncology, contributed to organization and scientific program of this yearly conference which focused on the most recent developments in the care of patients diagnosed with gastrointestinal, endocrine, and cutaneous malignancies.
SPECIAL PRESENTATIONS & INVITED LECTURES

Seely AJE. Monitoring and understanding variability analysis. The future of critical care monitoring. Vancouver General Hospital, Vancouver Canada, Apr 2015

Seely AJE. A novel program for Thoracic Surgery quality improvement. Vancouver Coastal Health, Vancouver Canada, Apr 2015

Seely AJE. Standardized Monitoring and reporting of all surgical adverse events all of the time: The future of surgical quality improvement? McGill University, Montreal Canada, Nov 2014

Gilbert S. Trans-oral management of superficial esophagogastric cancers. International Multidisciplinary Oncology Conference, Ottawa Canada, Jun 2015


PUBLICATIONS

The Division of Thoracic Surgery made the following contributions to the published literature in 2014–2015: 19 publications. These selected publications represent those of greatest impact:


<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. A Seely</td>
<td>The Thoracic Peri-Operative Integrative Surgical Care Evaluation (POISE) Trial</td>
<td>Operating (Research)</td>
<td>Lotte and John Hecht Memorial Foundation</td>
<td>$3,853,888</td>
<td>2015/01</td>
<td>2023/01</td>
</tr>
<tr>
<td>Dr. A Seely</td>
<td>Temperature, Heart and Respiratory Rate Investigation along with Variability Evaluation and Serum Biomarkers</td>
<td>Operating (Research)</td>
<td>THRRIVES</td>
<td>$98,000</td>
<td>2014/12</td>
<td>2015/12</td>
</tr>
<tr>
<td>Dr. PJ Villeneuve</td>
<td>Oncolytic rhadovirus treatment of non-small cell lung cancer — a stage-specific pilot treatment study</td>
<td>Group/Program (Research)</td>
<td>Joan Sealy Trust</td>
<td>$28,000</td>
<td>2014/02</td>
<td>2015/02</td>
</tr>
<tr>
<td>Dr. PJ Villeneuve, Dr. J Dimitroulakos</td>
<td>Evaluating Novel Therapeutic Approaches in Ex-Vivo Tumour Tissues Ottawa Tumour Tissue Resource Core Facility (OTTR)</td>
<td>Group/Program (Research)</td>
<td>The Faculty of Medicine and OHRI</td>
<td>$32,500</td>
<td>2012/01</td>
<td>2014/01</td>
</tr>
<tr>
<td>Dr. PJ Villeneuve, Dr. J Dimitroulakos</td>
<td>Targeting the mevalonate pathway in novel combination based therapeutic approaches</td>
<td>Group/Program (Research)</td>
<td>Canadian Institutes of Health Research</td>
<td>$349,842</td>
<td>2014/04</td>
<td>2017/03</td>
</tr>
<tr>
<td>Dr. PJ Villeneuve, Dr. J Dimitroulakos</td>
<td>Evaluating ATF3 as a novel and key mediator of cisplatinum induced tumour cell cytotoxicity and resistance</td>
<td>Operating (Research)</td>
<td>Cancer Research Society</td>
<td>$120,000</td>
<td>2013/01</td>
<td>2015/01</td>
</tr>
<tr>
<td>Dr. S Gilbert</td>
<td>Continuous Quality Improvement in the Management of Pulmonary Air Leaks after Lung Surgery Phase III: Signal Analysis of Pulmonary Air Leaks</td>
<td>Group/Program (Research)</td>
<td>TOHAMO Innovation Fund</td>
<td>$75,000</td>
<td>2015/04</td>
<td>2016/04</td>
</tr>
</tbody>
</table>
DIVISION OF UROLOGY

FACULTY MEMBERS

» Dr. J. Stuart Oake (Division Head)
» Dr. Anthony Bella
» Dr. Brian Blew
» Dr. Rodney Breau
» Dr. Ilias Cagiannos
» Dr. Filemon DeJesus
» Dr. Ronald G. Gerridzen
» Dr. Luis Guerra, Chief of Pediatric Urology, Children’s Hospital of Eastern Ontario
» Dr. Duane Hickling
» Dr. Luke Lavallée
» Dr. John Mahoney
» Dr. Chris Morash
» Dr. Matthew Roberts
» Dr. Eric Saltel (to April 2015)
» Dr. Jeff Warren
» Dr. James Watterson

NEW APPOINTMENTS & DEPARTURES

Dr. Luke Lavallée, joined our division commencing July 1, 2015 as a urological oncologist and Assistant Professor, University of Ottawa, increasing the uro-oncology complement to four. He has completed a two year Fellowship within our division for the two preceding years.

Dr. Eric Saltel, reconstructive urology, has relocated to Winnipeg, Manitoba in April 2015. His replacement will be in position within the 2016 academic year.

Dr. Tony Bella, Men’s Health, Erectile Dysfunction, will be relocating within Ottawa to a private practice. His contribution to Erectile Dysfunction/education within our division will continue on a peripheral and collaborative basis.
FELLOWSHIPS & FELLOWS

» Dr. Luke Lavallée, TOH, uro-oncology, completed June 30, 2015

SUBSPECIALTY TRAINING

» Dr. Rodney Breau, Associate Scientist OHRI, Clinical Research, uro-oncology

» Dr. Duane Hickling, Associate Scientist OHRI, Basic Science, Antimicrobial Peptides, Urinary Tract Infection

» Dr. Brian Blew returned from Australia after a one year sabbatical, where he participated in Australian Renal Transplantation meetings. Dr. Blew ran seminars to Australians on Canadian Fellowships and while there, did consulting work for the College of Physicians and Surgeons of Ontario.

NEW SERVICES SURGICAL & CLINICAL

Dr. Jeff Warren

» Geographic expansion of deceased donor organ donation throughout the Champlain LHIN.

» Implementation of strategies to provide surgeon availability and access to all centers within LHIN with deceased organ donation capability. This is a collaborative effort with TGLN to maximize the potential use of transplantable organs across the province of Ontario.

Dr. Stuart Oake

» Development of The Ottawa Hospital Men’s Health Clinic with an approved business plan for the same. This clinic will provide an innovative approach to global men’s health over a five year implementation period. Start date: TBD, location: Grimes Lodge, Civic Campus.

Dr. John Mahoney

» Peripheral service to Iqaluit continues with expansion of the program into a resident rotation; a valued educational experience along with quality, close-to-home patient care.
VOLUNTEER WORK

Dr. Michael Leonard

As a visiting consultant in February, 2015, Dr. Leonard performed Pediatric Urology procedures and taught local medical students, residents and staff urologists in Moca, Espaillat and Santiago, Dominican Republic. He met with education co-ordinator for Physicians for Peace (NGO which sponsors the mission) regarding possible contributions to ongoing training in pediatric urology in DR.

PLANS FOR THE FUTURE

The Division of Urology has a three campus model with campus-specific service assignments. The General Campus: Renal Transplantation, endo-urology/stone management, urological oncology. The Civic Campus: Men’s Health (EDys, infertility, reconstructive urology, female pelvic medicine, neuro-urology/ urodynamics). The Riverside Campus: out-patient urology and lithotripsy. Renal transplantation will be expanded in the next 12 months to meet population demand and Ministry of Health initiatives.

Our division will focus on the expansion and reclassification of reconstructive and neuro-urology at the Civic Campus. This will include the opening of a video-urodynamic fluoroscopy suite at the Civic that has been approved for implementation within the next year. This will expand general urological care, cancer survivorship, and will fully integrate uro-dynamics.

Outpatient stone management will be expanded at the Riverside Campus. The extracorporeal shockwave lithotripter will be replaced with a state of the art machine that will provide an expanded portfolio of stone management. The focus of this expansion will be centered around a “walking wounded” ureteroscopic stone program that will improve stone management and provide significant cost efficiencies.

Our division continues to work with hospital administration and our regional community partner hospitals to develop a regional urology program that will provide patients of our LHIN care closer to home and divest TOH of some secondary urological care.
VISITING PROFESSORS

» Dr. Paul F. Austin, April 2015, Divisional Research Day
  Director of Pediatric Urology Research, Professor of Urologic Surgery
  St. Louis Children’s Hospital, Washington University School of Medicine

» Dr. J. Curtis Nickel, May 2015, Urology Guest for Collins Day
  Queen’s University

SPECIAL EVENTS & HIGHLIGHTS

The 70th Anniversary of the Canadian Urological Association Annual Meeting was hosted by the Division of Urology and held in Ottawa in June 2015, with Dr. Stuart Oake (Division Head) as President of the Association.

The meeting included a robust Scientific Program which resulted from over 300 Canadian and international abstract submissions. The Scientific Program included podium and poster presentations, 7 educational fora, multiple continuing professional development courses and scientific presentations from multiple urological affiliates. The Scientific Program co-chairs were Drs. Rodney Breau and Anthony Bella. Dr. Matt Roberts was the Local Arrangements Coordinator. This was a milestone event for our Division that took place in June 2015 with 950 in attendance.

A public Prostate Cancer Awareness Event was organized by Dr. Chris Morash on May 2, 2015. This was a public awareness event for prostate cancer where PSA testing was available. There were 300 attendees and the event included follow-up by Dr. Morash to the patients and family doctors who had PSA screening. This event was very popular and will be repeated in the future.

HONOURS & AWARDS

» Dr. Stuart Oake, 70th President of the Canadian Urological Association

» Dr. Matt Roberts, Local Arrangements Chair, 70th Annual Meeting Canadian Urological Association

» Dr. Rodney Breau and Dr. Tony Bella, Scientific Program Co-Chairs, 70th Anniversary Annual Meeting Canadian Urological Association

» Dr. Chris Morash, member-at-large, Canadian Urological Association

» Dr. Ron Gerridzen, recipient of the Canadian Urological Association Lifetime Achievement Award, presented at the President’s Banquet of the 70th Anniversary Meeting, June 2015

» Dr. Ilias Cagiannos, Dr. John Collins Teaching Award, May 2015

» Dr. Jim Watterson, Hospital Hero Award, TOHAMO, The Ottawa Hospital, February 2015
PUBLICATIONS

The Division of Urology made the following contributions to the published literature in 2014–2015: 79 publications. These selected publications represent those of greatest impact:


PROSPECTIVE PROJECTS

2. Implementation of The Ottawa Hospital Men’s Health Centre.
3. Recruitment of a reconstructive and transplant urologist.
4. Restructuring of erectile dysfunction services within the division.
5. Further development of service-oriented care delivery at the Civic Campus (Men’s Health reconstructive urology).
6. Implementation of a castrate-resistant prostate cancer program running parallel to the Prostate Cancer Assessment Clinic.
7. Development of a Regional Urology Program with TOH administration and community hospital partnership.
8. Development of walking-wounded stone treatment program based at the Riverside Campus.
9. Continued and expanded academic funding support (research chair alignment).
# Research Grants

<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drs. R Breau, Principal Investigator; I Cagiannos (co-principal investigator); AJ Bella; C Morash (collaborator)</td>
<td>Improving Quality of Prostate Cancer Surgery by Providing Feedback to Surgeons: A Pilot Study</td>
<td>Operating (Research); Movember Discovery Grant</td>
<td>Prostate Cancer Canada</td>
<td>$194,776</td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Drs. R Breau, Principal Investigator; I Cagiannos (co-principal investigator); C Morash (collaborator)</td>
<td>Improving Quality of Prostate Cancer Surgery by Providing Feedback to Surgeons: A Pilot Study</td>
<td>Innovation Fund</td>
<td>The Ottawa Hospital Academic Medical Organization (TOHAMO)</td>
<td>$99,769</td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Dr. R Breau, Principal Investigator</td>
<td>Knowledge Translation for Renal Cell Carcinoma Care in Canada</td>
<td>Operating (research)</td>
<td>Pfizer Canada Inc</td>
<td>$150,850</td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Drs. R Breau, I Cagiannos, D Fergusson (co-principal investigators); C Morash (collaborator)</td>
<td>A Randomized Controlled Trial of Renal Hypothermia during Partial Nephrectomy</td>
<td>Operating (research)</td>
<td>Canadian Institutes of Health Research (CIHR)</td>
<td>$404,250</td>
<td>2015</td>
<td>Present</td>
</tr>
<tr>
<td>Drs. R Breau, I Cagiannnos (supervisors)</td>
<td>Educational Needs Assessment of Canadian Kidney Cancer Surgeons and Medical Oncologists</td>
<td>KCRNC Fellowship Award</td>
<td>Kidney Cancer Research Network of Canada</td>
<td>$15,000</td>
<td>2015</td>
<td>Present</td>
</tr>
<tr>
<td>Drs. R Breau, H Fritz (co-principal Investigators)</td>
<td>Natural Health Products and Prostate Cancer: A Systemic Review of the Literature</td>
<td>Group/ Program (research)</td>
<td>Canadian Institutes of Health Research (CIHR)</td>
<td>$100,000</td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Dr. AJ Bella, Collaborator</td>
<td>Improving Quality of Prostate Cancer Surgery by Providing Feedback to Surgeons: A Pilot Study</td>
<td>Operating (research); Movember Discovery Grant</td>
<td>Prostate Cancer Canada</td>
<td>$194,776</td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Dr. AJ Bella</td>
<td>Greta and John Hansen Chair in Men's Health Research</td>
<td>Research Chair; Endowed Chair Holder</td>
<td>University of Ottawa and The Ottawa Hospital Foundation</td>
<td>$2,500,000</td>
<td>2014</td>
<td>2015</td>
</tr>
<tr>
<td>Dr. AJ Bella, co-principal investigator</td>
<td>Prospective Registry of Outcomes with Penile Prosthesis for Erectile Restoration (PROPPER)</td>
<td>ClinicalTrials.gov Identifier NCT 01383018 Multicenter Surgical - Clinical Research Outcomes Registry</td>
<td>American Medical Systems (Endo Pharmaceuticals)</td>
<td>$2,500,000</td>
<td>2011</td>
<td>Present</td>
</tr>
<tr>
<td>Dr. D Hickling (principal investigator)</td>
<td>New Investigator Start Up Funds</td>
<td>Operating (research)</td>
<td>The Ottawa Hospital Research Institute/ The Ottawa Hospital/ University of Ottawa</td>
<td>$127,800</td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Dr. D Hickling (principal investigator)</td>
<td>LL-37 Urinary Catheter Coating for the Prevention of Infectious and Non-infectious Catheter-associated Complications</td>
<td>Operating (research)</td>
<td>University of Ottawa</td>
<td>$90,000</td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Dr. L Guerra (principal investigator)</td>
<td>RCT on Pelvic Floor Biofeedback Retraining for Treatment of Dysfunctional Elimination Syndrome in Children</td>
<td>Operating (research)</td>
<td>AHSC Innovation Fund</td>
<td>$52,000</td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Dr. L Guerra (Joint Investigator)</td>
<td>Research Capacity-Building Award</td>
<td>Infrastructure (research)</td>
<td>CHEO Research Institute and Clinical Research Unit, Clinical Research Capacity-Building Award</td>
<td></td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Drs. M Keays (principal investigator); L Guerra (collaborator)</td>
<td>Improving Outcomes in Children with Hypospadias: Focus on What Matters to Patients and Families</td>
<td>Operating (research)</td>
<td>Canadian Urological Association Scholarship Foundation</td>
<td>$40,000</td>
<td>2014</td>
<td>Present</td>
</tr>
<tr>
<td>Dr. C Morash (Collaborator)</td>
<td>Randomized double blind trial of metformin in reducing progression among men on expectant management for low risk prostate cancer: the MAST (Metformin Active Surveillance Trial) study</td>
<td>Operating (research)</td>
<td>Canadian Cancer Society Research Institute (CCSRI)</td>
<td>$1,250,000</td>
<td>2014</td>
<td>Present</td>
</tr>
</tbody>
</table>
DIVISION OF VASCULAR SURGERY

FACULTY MEMBERS

Faculty

» Dr. Sudhir Nagpal (Division Head)
» Dr. Tim Brandys
» Dr. George Hajjar
» Dr. Andrew Hill
» Dr. Prasad Jetty
» Dr. Dalibor Kubelik

FELLOWSHIPS & FELLOWS

» Dr. Ahmed Ameer
» Dr. Matthew Smith

INTRODUCTION

The Division of Vascular Surgery, University of Ottawa provides comprehensive vascular care to the people of Eastern Ontario. We continue to be the busiest vascular hospital in Ontario by volume of procedures.

I am delighted to share the dedicated work from the vascular team which maintains clinical care, education and research efforts at the national forefront.

On the educational front led by Dr. Dal Kubelik and Dr. Tim Brandys, the current and former program directors respectively, the transition to a residency program from a fellowship program has gone smoothly. We expect to graduate our first senior resident next year. The success of the program is of great pride to the division as it is generally regarded as one of the top residency programs in the country. In support of this, both Dr. Kubelik and Dr. Brandys have won separate teaching awards for their educational commitment.
Advances in the clinical care continue in our division. The opening of the new endovascular hybrid operating room in 2015 was a major milestone for The Ottawa Hospital and the Division of Vascular Surgery. This multi-million-dollar investment will allow more complex endovascular procedures to be done safely, improving patient outcomes and radiation exposure for our hospital staff. This has been a collaborative effort from many different domains and the results have impressed everyone involved. These rooms were opened in the summer of 2015 with significant media attention, which revolved around the advanced technology and patient care stories.

Collaborative clinical care is mandatory among different disciplines to maximize outcomes for our vascular patients. We have developed joint rounds or projects with multiple other specialties including thrombosis, infectious disease, cardiac surgery, and nephrology. We have also developed a vascular risk factor clinic with our internal medicine colleagues to maximize patient outcomes and promote interdisciplinary research.

**VISITING PROFESSORS**

We were fortunate to host Dr. Philip Goodenay, a vascular surgeon from Dartmouth College, a leading American researcher in outcomes research as a visiting professor this year. He presented an outstanding talk “Outcomes Research and Clinical Registries—Changing How We Choose Patients For Surgery” at Surgical Grand Rounds Jan 28th. He spent 2 days with our division, joining us and contributing significantly to our journal club and provided a teaching day for our residents and fellows.

**SPECIAL EVENTS & HIGHLIGHTS**

The vascular division organizes and hosts the National Capital Vascular Symposium. In only its 2nd year it has become a popular conference on a national scale. This year brought international speakers from Europe, United States as well as Canadian experts with attendees from across North America. It has been well reviewed and we plan to make this an annual event.

We also hosted Peer to Peer CME courses in endovascular therapy for practicing surgeons, allowing the surgeons to practice these innovative techniques back in their own hospitals.

We have recently been asked to host courses involving open techniques for practicing vascular surgeons and this will be starting in the following year.

The Division of Vascular Surgery was an integral part of the President’s Dinner hosted by Ottawa Hospital Foundation. This was a fundraising event for the new endovascular hybrid operating room at The Ottawa Hospital. A Keynote address was given by Dr. Sudhir Nagpal emphasizing the improved patient outcomes with this advanced technology.
HONOURS & AWARDS

Our divisional members received 2 major awards over the past year endorsing our commitment to resident and student education.

» Dr. Tim Brandys: Canadian Association for Medical Education (CAME) Certificate of Merit Award May 2015

» Dr. Dalibor Kubelik: Surgeon Teacher of the Year, Dept of Surgery 2015

Research continues to be a vital part of the division. We were represented by multiple podium presentations and posters at the National Vascular meeting. Under Divisional Research Lead, Dr. Prasad Jetty, the research efforts continue to improve.

PLANS FOR THE FUTURE

In the upcoming year the division will collaborate in a provincial wide database, to benchmark clinical results and optimize best practices.

» Plans to enhance our Research Program by hiring Masters/PHD research specialists.

» Quality improvements projects involving the new Hybrid Suite to improve radiation safety.

PUBLICATIONS

The Division of Vascular Surgery made the following contributions to the published literature in 2014–2015: 8 publications. These selected publications represent those of greatest impact:


### RESEARCH GRANTS

<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drs. R Quinn, B Barrett, C Bohm, S Hiremath, JMacrae, M Mamdani, L Miller, L Moist, S Nagpal, G Nesrallah, M Oliver, M Parrilla Lopez, R Pauly, Prof. K Thorpe, R Wald, M Walsh</td>
<td>ACCESS Trial: A randomized trial Comparing Catheters to fistulas in Elderly patients Starting dialysis</td>
<td>Peer Reviewed</td>
<td>CIHR</td>
<td>$375,000</td>
<td>2015</td>
<td>2018</td>
</tr>
<tr>
<td>Drs. E Gandara (PI), S Nagpal (Co-Investigator)</td>
<td>Development and implementation of the Ottawa Hospital Acute Limb Thrombosis and Embolism Outpatient Anticoagulation Program (OHALIP)</td>
<td>Peer-reviewed</td>
<td>TOHAMO</td>
<td>$79,000</td>
<td>April 2014</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Drs. P Jetty (PI), E Gandara, (PI)</td>
<td>Rivaroxaban for the Prevention of Restenosis after Infracingual Percutaneous Transluminal Angioplasty for Critical Limb Ischemia: The RIFLE study</td>
<td>Peer-reviewed</td>
<td>Department of Surgery</td>
<td>$25,000</td>
<td>Sep 2013</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>----------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------</td>
<td>--------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Dr. D Kubelik (PI)</td>
<td>Application of System Safety Process to Eliminate Patient Identification Errors due to Physical and Virtual Proximity</td>
<td>Peer-reviewed</td>
<td>Department of Medicine</td>
<td>$10,000</td>
<td>2013</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Drs. S Nagpal (PI), A Hill, G Hajjar, T Brandys, P Jetty</td>
<td>EUCLID-A randomised, double-blind, parallel group, multicentre phase IIIb study to compare ticagrelor with clopidogrel treatment on the risk of cardiovascular death, myocardial infarction and ischaemic stroke in patients with established Peripheral Artery Disease</td>
<td>Not Peer-reviewed</td>
<td>Industry</td>
<td>$45000 (approx.)</td>
<td>July 2013</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Drs. A Hill (PI), G Hajjar, T Brandys, S Nagpal, P Jetty</td>
<td>Curcumin to prevent acute kidney injury from elective abdominal aortic aneurysm repair, Vanguard Phase I</td>
<td>Peer-reviewed</td>
<td>CIHR</td>
<td>$364,929</td>
<td>June 2012</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Drs. S Nagpal (PI), A Hill, G Hajjar, T Brandys, P Jetty</td>
<td>VASCUTEK ANACONDA™ STENT GRAFT SYSTEM PHASE II IDE STUDY</td>
<td>Not Peer-reviewed</td>
<td>Industry</td>
<td>$110,000</td>
<td>June 2010</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
CHILDRENS’ HOSPITAL OF EASTERN ONTARIO

FACULTY MEMBERS

» Dr. Juan Bass (Chief of Surgery, CHEO)
» Dr. Marcos Bettolli
» Dr. Sasha Carsen
» Dr. Kevin Cheung
» Dr. Kyle Cowan
» Dr. Luis Guerra
» Dr. James Jarvis
» Dr. Melise Keays
» Dr. Ken Kontio
» Dr. Louis Lawton
» Dr. Yvonne Ying

» Dr. Michael Leonard
» Dr. Gyaandi Maharajh
» Dr. Claudia Malic
» Dr. David McAuley
» Dr. Ahmed Nasr
» Dr. Munyao Nzau
» Dr. Ganesh Shanmugam
» Dr. Kevin Smit
» Dr. Michael Vassilyadi
» Dr. R. Baxter Willis

NEW APPOINTMENTS

» Dr. Claudia Malic, Division of Plastic Surgery
» Dr. Melise Keays, Division of Urology
» Dr. Kevin Cheung, Division of Plastic Surgery
» Dr. Sasha Carsen, Division of Orthopaedics
» Dr. Kevin Smit, Division of Orthopaedics

RETIREMENTS

» Dr. Mary Jean Duncan, Plastic Surgery
FELLOWSHIPS & FELLOWS

» Dr. Kathryn Martin, Division of Pediatric Surgery
» Dr. Damian Dylkowski, Division of Urology
» Dr. Elka Mau, Division of Urology
» Dr. Marcel Abouassaly, Division of Pediatric Orthopaedics
» Dr. Amir Assiri, Division of Pediatric Neurosurgery
» Dr. Cleo (Jui-Hsia) Hung - Research Fellow, Division of Pediatric Surgery

NEW SERVICES SURGICAL & CLINICAL

» Vascular Clinic—Dr. Yvonne Ying
» Pediatric Concussion Clinic opened in November of 2014
» CHEO satellite site: 1355 Bank St, Suite 111, Ottawa
» Pediatric Stone Clinic established (Pediatric Urology, Nephrology, Nursing and Nutrition)
» Neuromodulation therapy established (Pediatric Urology)

VOLUNTEER WORK

Division of Pediatric Neurosurgery

Dr. Michael Vassilyadi

» Chapter Director for Ottawa ThinkFirst/Parachute Presentations and Kiosks:
» Head Injury Awareness, CHEO Teddy Bears’ Picnic
» Head Injury Awareness and helmet give-away, Prince of Peace School
» Update on Concussions and Management for school board coaches
» “Brain Day” at Stephen Leacock Public School
» Concussions in Sports, West Carleton Secondary School
» Concussions in Ringette, Walter Baker Arena
» Head Injury Awareness, Walter Baker Arena
» Concussion in Sports, Nepean Basketball Association
» Late Show with Alex Munter, CHEO
» Head Injury Awareness, Eastern Ontario Regional Trauma Conference
» Head Injury Awareness, Kids Day Kanata
**Division of Plastic Surgery**

Dr. Yvonne Ying

» Operation Smile—Malawi August 2014
» Smile Train—Burundi Jan 2015
» Ottawa Community Outreach clinic—providing surgical services to marginalized and uninsured patients

**Division of Urology**

Dr. Melise Keays

» Programme Apprendre à Lire (children aged 5-7)—Ecole Laurier Carriere
» International mission participation in 2015

Dr. Michael Leonard

» Dr. Michael Leonard participated in the last 5 years in a yearly surgical mission in Moca, Espillat, Dominican Republic. “Hypospadias surgery in underprivileged children under auspices of Physicians for Peace”. Also included teaching of local medical students, residents and practitioners in the operating theatre regarding the surgical techniques used.
» Dr. Leonard—President Canadian Urological Association (one year term started late June 2015)
» Dr. Leonard—Almonte General Hospital (Board of Directors / Chair Patient Safety Committee / Member Governance Committee)

**Division of Pediatric Orthopaedics**

Dr. James Jarvis

» Canadian Association of Medical Teams Abroad (CAMTA)—Quito Ecuador

**PLANS FOR THE FUTURE**

The Division of Urology will continue to be productive in the field of clinical research. With the addition of Dr. Keays to our team, we have an added skill in clinical study / trial design and outcome qualitative analysis in pediatric urology. We are increasing our research productivity to allow our division to advance further in the realm of academic productivity and maintain our role as national opinion leaders in the field of pediatric urology. The recruitment of a third urologist will allow us to reach our potential.
VISITING PROFESSORS

- Stanley Mercer Visiting Professor—Dr. Erik Skarsgard, June 17, 2105

SPECIAL EVENTS & HIGHLIGHTS

Division of Plastic Surgery
Dr. Yvonne Ying
- Helping Hands Picnic—Event for children with congenital hand anomalies

Division of Pediatric Neurosurgery:
Dr. Michael Vassilyadi
- CBC News—Interviewed on Concussions and Concussion Research Project
- With the support of the Hellenic Community of Ottawa, raised $27,000 in the “Hike for CHEO”. These funds allowed the purchase of two Veinsite viewers for anesthesia and the vascular access team at CHEO (to allow easier access to the small veins in children and less pain) and two intracranial pressure PowerLab units for neurosurgery (for better assessment of ICP in children).

Division of Urology
Dr. Melise Keays
- Joseph Segura Annual Urolithiasis Update Course Nov 14–15, 2014
- EPIC Physician Builder Basic Certification Course, Madison Wisconsin, February 2015

Division of Pediatric Surgery
Dr. Marcos Bettolli
- Fund raising: M. Bettolli, “Hirschsprung’s charity Best Ball Golf Tournament in association with CHEO” June 1st, 2015 (raised $29,000)
SPECIAL PRESENTATIONS & INVITED LECTURES

Division of Plastic Surgery

- Invited Speaker—Dr. Yvonne Ying
- McGill Global Surgery Day—May, 2015, Montreal, PQ
- Association for Surgical Education—April 2015, Seattle, WA
- Canadian Conference for Medical Education—April 2015, Vancouver, BC

Division of Pediatric Orthopaedics:

- Physeal Fractures of the Ankle: Evaluation and Treatment. J Jarvis. 28th Annual St Justine Pediatric Review Course. Shriner’s Hospital / Montreal Children’s Hospital. Montreal, Que
- Let’s Not Forget About These Syndromes! J Jarvis. 28th Annual St Justine Pediatric Review Course. Shriner’s Hospital / Montreal Children’s Hospital. Montreal, Que
- Neuro-monitoring alerts and new neurologic deficits in pediatric spinal fusion surgery. American Society of Anaesthesiology Annual Meeting. San Diego, Ca

Dr. R. Baxter Willis

- Nov 2014 Invited Speaker
  Japanese Pediatric Orthopaedic Association Meeting
  Tokyo, Japan
- April 2014 Invited Speaker
  European Pediatric Orthopaedic Society Meeting
  Marseilles, France

Division of Pediatric Neurosurgery

Dr. Michael Vassilyadi

- Pediatric Medicine Update
  Ottawa Conference and Event Centre
  Incidentalomas on MRI, April 18, 2015
» Seminar for coaches, teachers, parents and health workers
  Yellowknife, NT
  Head Injuries, Prevention and the Concussion Research Project at CHEO
  March 7, 2015

» Concussion Café
  Yellowknife, NT
  Concussion Education—Understanding when to “return-to-learn” and “return-to-play”
  March 6, 2015

» BrainTalks: A multi-disciplinary approach to brain injury
  Faculty of Medicine, University of Ottawa
  Surgical Management of Brain Injuries
  March 2, 2015

» The Ottawa Neurosurgery Review Course
  The Ottawa Hospital
  Title 1: Chiari Malformations, Tethered Cord Syndrome, Split Cord Malformation, Neuroenteric Cysts
  Title 2: Craniosynostosis and Cranio-Facial Syndromes
  February 13, 2015

» Pediatric Emergency Fellows Seminar
  Children’s Hospital of Eastern Ontario
  Approach to Traumatic Brain Injury
  October 8, 2014

» National ThinkFirst
  Webinar teleconference
  Injury Prevention and the Ottawa ThinkFirst Chapter
  September 23, 2014

---

**Division of Pediatric Urology**

**Dr. Melise Keays**

» Montfort Pediatric CME Teaching Rounds, Montfort Hospital, April 21, 2015
  Evidence for Optimal Management of Common Pediatric Urological Conditions

» 64th Annual Refresher Course for Family Physicians, April 29, 2015
  Urogynecology: Common Problems in Children

» Moderator, Pediatric Urology Session, Canadian Urologic Association, Ottawa, June, 2015
HONOURS & AWARDS

Division of Pediatric Orthopaedics

Dr. James Jarvis

» Orthopaedic Surgery Staff Teaching Award 2014–2015
» Division of Orthopaedic Surgery
» University of Ottawa

Division of Pediatric Neurosurgery

Dr. Michael Vassilyadi

» Safety Leadership Award
» Ontario Trial Lawyers Association (OTLA)
» Presented in Toronto during the OTLA’s spring conference

Division of Plastic Surgery

Dr. Yvonne Ying

» AMS Phoenix Award, $25 000
Division of Urology

Dr. Melise Keays

» Canadian Urological Association Scholarship Fund Academic Research Grant. $40,000. Principal Investigator Melise Keays

» The Pediatric Surgery and Pathology Knowledge Synergy Group, CHEO Research Institute Capacity Building Award. $160,000CDN. (Co-Investigator, PI: Ahmed Nasr)

» Canadian Urological Association Best Poster Award, CUA Annual Meeting, Ottawa, Ontario, June 2015

Division of Pediatric Surgery

Dr. Nasr

» Won the best presentation award for University of Ottawa summer studentship competition (2015) for the project: Evidence Based Practice in the Management of Tracheo-Esophageal Fistula

PUBLICATIONS

CHEO made the following contributions to the published literature in 2014–2015: 52 Publications.

» These selected publications represent those of greatest impact:

Orthopaedics


**Pediatric General Surgery**


**Urology**


**Neurosurgery**


**PROSPECTIVE PROJECTS**

**Division of Pediatric Neurosurgery**

Dr. Michael Vassilyadi

- Malignant brain edema following a “second hit” in an adolescent athlete.
- The effect of the TRAIN (Teaching Concussion Recognition And Injury Notification) program on the acquisition of general concussion knowledge and attitude in children who play soccer.
- Generating innovation through the use of common data: Improving the diagnosis of youth mild traumatic brain injury in Canada.
- Clinical risk score for persistent post-concussion symptoms in pediatrics.
- Creation of a PSA (public service announcement) for head injury prevention.
- Establishment of concussion education and management recommendations after a discretionary coroner’s inquest.
- Institutional compilation and analysis of acute neurological complications as a result of brain tumor surgery on REDCap.

**Division of Urology:**

Dr. Melise Keays

- A retrospective analysis of ultrasounds performed by CHEO Radiology for Undescended Testicles pre and post implementation of a standardized referral process (PI: Keays, Co-I: Leonard, Guerra, Nasr, Miller)
- I2B2 Implementation Project: Linking the ASTRIA prenatal database to post-natal diagnoses in EPIC for antenatal hydronephrosis. A collaboration between maternal-fetal medicine at OGH and Pediatric Urology at CHEO.
- Update observational management of ureteroceles Explore data base linkage (MFM database x EPIC) looking for outcomes and resource utilization in antenatally diagnosed hydronephrosis. Psychological impact of diagnosis of antenatal hydronephrosis on prospective parents.
**Division of Pediatric General Surgery**

- The status of interstitial cells of Cajal in stem cell transplant treatment of Hirschsprung's disease (M. Bettolli)
- MRI evaluation of appendiceal abscess (M. Bettolli)
- Brace Therapy for Pectus Carinatum, changing the paradigm (M. Bettolli, A. Nasr)
- A multicentric study reviewing management practices in pediatric magnet ingestion (M. Bettolli)
- Metronidazole Once Daily vs. Three Times Daily for Perforated Appendicitis in Children: A Non-Inferiority Randomized Controlled Trial (A Nasr)
- Interval Appendectomy in Children: Is it Really Necessary. A Non-Inferiority Trial (A Nasr)
- Canadian Association of Paediatric Surgeons Evidence Based Resource (A Nasr)

**RESEARCH GRANTS**

<table>
<thead>
<tr>
<th>Investigator(s)</th>
<th>Title</th>
<th>Funding Type</th>
<th>Funding Source</th>
<th>Amount of Funding</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drs. M. Vassilyadi (Site Investigator), I. Gagnon</td>
<td>Generating innovation through the use of common data: Improving the diagnosis of youth mild traumatic brain injury in Canada</td>
<td>Research Award</td>
<td>Montreal Children’s Hospital</td>
<td>$0</td>
<td>2015</td>
<td>2017</td>
</tr>
<tr>
<td>Dr. M. Vassilyadi (Co-Investigator)</td>
<td>Spinal Injuries in CHEO</td>
<td>Research Award for summer student</td>
<td>CHEO Surgery Research &amp; Development Fund</td>
<td>$3,000</td>
<td>2014</td>
<td>2014</td>
</tr>
<tr>
<td>Dr. M. Vassilyadi (Co-Investigator), Dr. R. Zemek</td>
<td>Mild Traumatic brain injury in children and youth - Predicting Persistent Postconcussive Problems in Pediatrics (SP): A Clinical Prediction Rule Derivation and Validation Study</td>
<td>Grant</td>
<td>CIHR</td>
<td>$1,273,705</td>
<td>2013</td>
<td>2017</td>
</tr>
<tr>
<td>Dr. M. Vassilyadi (Collaborator)</td>
<td>Guidelines for the Management of pediatric concussion/MTBI and persistent symptoms</td>
<td></td>
<td>Ontario Neurotrauma Foundation</td>
<td>$88,398</td>
<td>2013</td>
<td>2014</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>----------------------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Dr. M Vassilyadi (Collaborator)</td>
<td>Risk of brain cancer from exposure to radiofrequency fields from wireless telecommunication devices in childhood and adolescence</td>
<td>CIHR</td>
<td>$263,965</td>
<td>2010</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>Dr. M Keays (Principal Investigator)</td>
<td>Validation and Incorporation of a Patient Reported Outcome Measure for Infants, Children and Teenagers with Hypospadias in a Longitudinal Hypospadias Outcomes Study</td>
<td>Thrasher Early Career Award</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. M Keays (Principal Investigator)</td>
<td>A patient engagement initiative to improve care for children with voiding dysfunction, urinary tract infections and incontinence through innovative technologies in the EMR (EPIC)</td>
<td>CHAMO Research Fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. M Bettolli</td>
<td>Bioengineering strategies for the treatment of Hirschsprung Disease</td>
<td>Internal research funding</td>
<td>Internal research funding</td>
<td>$59,000</td>
<td>March 2014</td>
<td>March 2016</td>
</tr>
<tr>
<td>Dr. A Nasr</td>
<td>The Pediatric Surgery and Pathology Knowledge Synergy Group</td>
<td>Internal research funding</td>
<td>CHEO Research Institute Capacity Building Award</td>
<td>$160,000</td>
<td>Nov 2015</td>
<td>Nov 2018</td>
</tr>
<tr>
<td>Dr. A Nasr</td>
<td>Barriers and Facilitators to the Implementation of Evidence-Based Practice by Pediatric Surgeons</td>
<td>Internal research funding</td>
<td>CHEO Research Institute Research Growth Award</td>
<td>$30,000</td>
<td>May 2015</td>
<td>May 2016</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>Dr. A Nasr</td>
<td>Evidence Based Practice in the Management of Tracheo-Esophageal Fistula</td>
<td>External research funding</td>
<td>Canadian Institutes of Health Research (CIHR) Summer Studentship Award, University of Ottawa</td>
<td>$5,000</td>
<td>June 2015</td>
<td>Sept 2015</td>
</tr>
<tr>
<td>Dr. A Nasr</td>
<td>Incidence and Long Term Outcome of Hirschsprung’s Disease in Ontario. A Population Based Study</td>
<td>External research funding</td>
<td>ICES Research Grant</td>
<td>$10,000</td>
<td>June 2014</td>
<td>June 2016</td>
</tr>
<tr>
<td>Dr. A Nasr</td>
<td>Transfer Impact on Pediatric Trauma Outcome</td>
<td>External research funding</td>
<td>Canadian Institutes of Health Research (CIHR) Summer Studentship Award, University of Ottawa</td>
<td>$5,000</td>
<td>June 2014</td>
<td>Sept 2014</td>
</tr>
<tr>
<td>Dr. A Nasr</td>
<td>Determining Trauma Quality Indicators in Pediatrics to Improve Outcomes</td>
<td>External research funding</td>
<td>Ministry of Health Innovation Grant</td>
<td>$26,000</td>
<td>March 2014</td>
<td>March 2015</td>
</tr>
<tr>
<td>Dr. A Nasr</td>
<td>Canadian Association of Pediatric Surgery Evidence Based Resource</td>
<td>External research funding</td>
<td>CIHR Knowledge to Action Grant</td>
<td>$200,000</td>
<td>May 2015</td>
<td>May 2017</td>
</tr>
<tr>
<td>Dr. L Guerra: PI Dr. M Leonard: Co-PI Co-Investigator: Nick Barrowman</td>
<td>RCT on Pelvic Floor Biofeedback Retraining for Treatment of Dysfunctional Elimination Syndrome in Children</td>
<td>Peer reviewed</td>
<td>AHSC Innovation Fund (Ministry of Health and Long Term Care - MOHLTC)</td>
<td>$51,700</td>
<td>May 2011</td>
<td>May 2014</td>
</tr>
<tr>
<td>Investigator(s)</td>
<td>Title</td>
<td>Funding Type</td>
<td>Funding Source</td>
<td>Amount of Funding</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------------------------------------</td>
<td>--------------</td>
<td>-----------------------------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Principal Investigator: Dr. A Nasr Co-Investigator: Dr. L Guerra, M Leonard, J Bass, M Keays, J de Nanassy, D El Demellawy</td>
<td>The Pediatric Surgery and Pathology Knowledge Synergy Group (PSP-KSG) Research Unit</td>
<td>Peer reviewed</td>
<td>CHEO RI / CRU—Clinical Research Capacity Building Award Results</td>
<td>$120,000</td>
<td>May 2014</td>
<td>May 2017</td>
</tr>
</tbody>
</table>