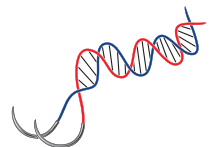




Department of Surgery

ANNUAL REPORT

2015-2016





Department of Surgery

# Annual Report

JANUARY, 2015 – JUNE 30, 2016

## **R.S. McLaughlin Professor And Chair**

Dr. J.T. Rutka

## **Associate Chair And Vice-Chairs**

Dr. O. Rotstein	Associate Chair
Dr. D.A. Latter	Vice-Chair, Education
Dr. R.R. Richards	Vice-Chair, Clinical
Dr. M. Fehlings	Vice-Chair, Research
Dr. R. McLeod	Vice-Chair, Quality
Dr. A. Kapus	Associate Chair, Research
Dr. S. Keshavjee	Vice-Chair, Surgical Innovation

## **Surgeons In Chief**

Dr. C. Caldarone	The Hospital for Sick Children/Robert B. Salter Chair in Surgical Research
Dr. J.S. Wunder	Mount Sinai Hospital/Rubinoff-Gross Chair in Orthopaedics
Dr. C. Compeau	St. Joseph's Health Centre
Dr. O.D. Rotstein	St. Michael's Hospital
Dr. A. Nathens	Sunnybrook Health Sciences Centre
Dr. C. Simone	The Toronto East General Hospital/Michael Garron Hospital
Dr. S. Keshavjee	University Health Network/James Wallace McCutcheon Chair in Surgery
Dr. J.L. Semple	Women's College Hospital

## **University Division Chairs**

Dr. C. Morshead	Anatomy
Dr. C. Caldarone	Cardiac Surgery
Dr. C. Swallow	General Surgery/Bernard and Ryna Langer Chair
Dr. A. Lozano	Leslie Dan Professor and Chair of Neurosurgery
Dr. P. Ferguson	Albert and Temmy Latner Chair, Division of Orthopaedics
Dr. C. Forrest	Plastic and Reconstructive Surgery
Dr. T. Waddell	F.G. Pearson/R.J. Ginsberg Chair in Thoracic Surgery
Dr. N. Fleshner	Martin Barkin Chair in Urological Research
Dr. T. Forbes	Vascular Surgery



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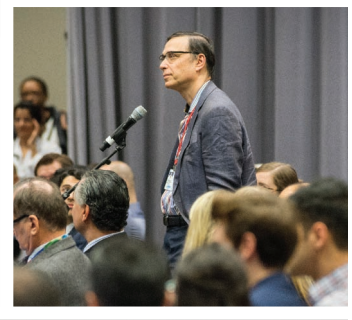
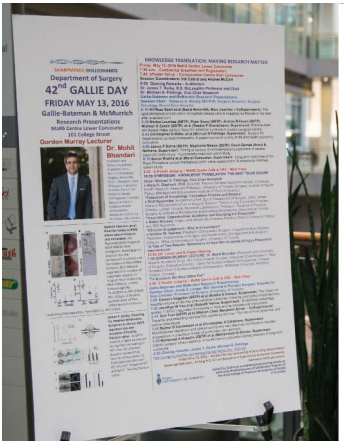
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Poster Judging





Poster Judging





Reception, Dinner & Award Ceremony









Reception, Dinner & Awards Ceremony









# Global Surgery Symposium Friday February 19, 2016





## Continuing Appointment Reviews 2015-16



**Shady Ashamalla** - From Left to Right: N. Cobourn, S. Ashamalla, A. Nathens, C. Swallow



**Karen Devon** - From Left to Right: J. Semple, K. Devon, M. McKneally, C. Swallow



**Jas Chahal** - From Left to Right: N. Mahomed, J. Chahal, D. Ogilvie-Harris, P. Ferguson



**Gregory Fairn** - From Left to Right: A. Kapus, G. Fairn, O. Rotstein



**Robert Hamilton** - From Left to Right: N. Fleshner, R. Hamilton, O. Rotstein



**Edward Hickey** - From Left to Right: E. Hickey, M. Fehlings

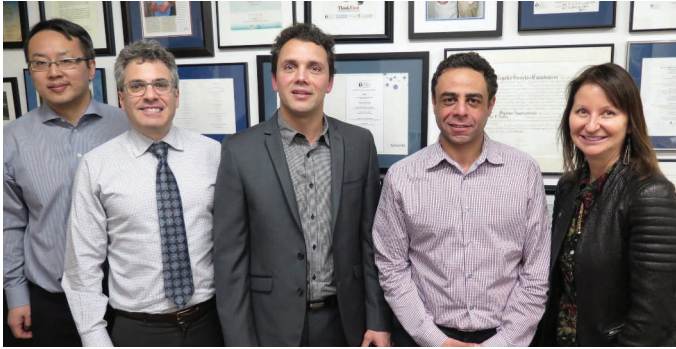


**Joao B. Rezende-Neto** - From Left to Right: D. Latter, J.B. Rezende-Neto, N. Baxter, W. Kuebler



**Paul Karanicolas** - From Left to Right: C. Swallow, P. Karanicolas, S. Ashamalla





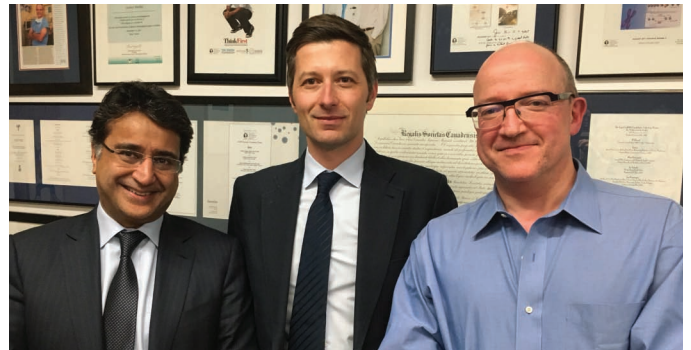
**Bartolomeu Nascimento** - From Left to Right: H. Tien, A. Nathens, B. Nascimento, S. Ashamalla, C. Swallow



**Anne O'Neill** - From Left to Right: C. Forrest, J. Wunder, A. O'Neill, S. Keshavjee, S. Hofer



**Fayer Quereshey** - From Left to Right: A. Okrainec, F. Quereshey, C. Swallow



**Ivan Radovanovic** - From Left to Right: S. Keshavjee, I. Radovanovic, M. Tymianski



**Steve McCabe** - From Left to Right: L. Forrest, S. McCabe, S. Hofer



**Mohammed Shamji** - From Left to Right: M. Tymianski, M. Shamji, M. Fehlings, M. Salter



**Laura Snell** - From Left to Right: C. Forrest, L. Snell, P. Binhammer



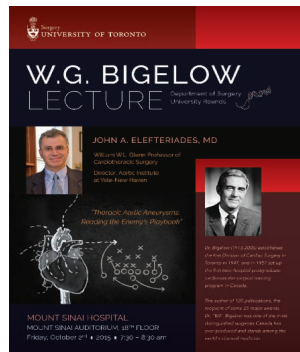
**Paul Kuzyk** - From Left to Right: J. Wunder, P. Ferguson, P. Kuzyk, D. Backstein



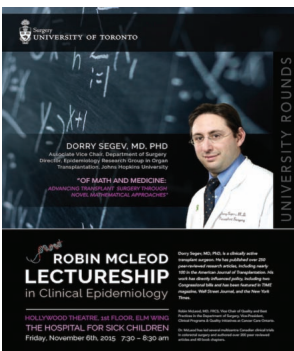
# University Rounds



**Annual Address - September 2015, O. Rotstein, A. Nathens, J. Rutka**



**Bigelow Lecture - October 2015, C. Caldarone, J. Eleftheriades**



**Robin McLeod Lectureship in Clinical Epidemiology - November 2015, D. Backstein, D. Segev, R. McLeod, J. Rutka**



**2015 Lister and George Armstrong-Peters Award Winner Presentations - December 2015 J. Rutka, M. Cypel, E. Schemitsch**



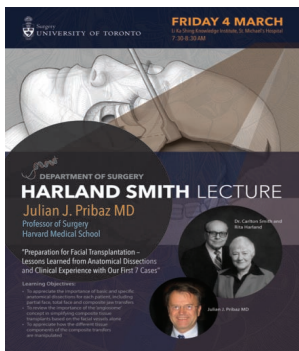
# University Rounds



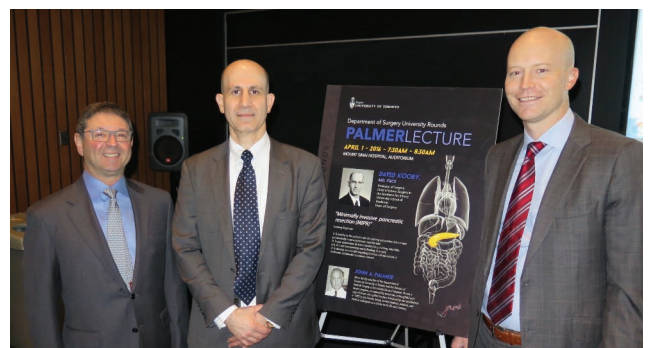
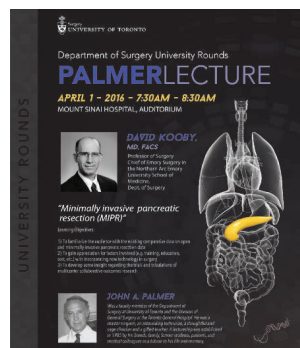
**Ben Alman Research and Science Rounds - January 2016,**  
M. Fehlings, L. McKerracher, B. Alman, J. Rutka



**Kergin Lecture - February 2016, J. Rutka, R. Lorenz, P. Pisters, H. Scully**



**Harland Smith Lecture - March 2016, R. Zuker, C. Morshead, J. Pribaz, C. Forrest**



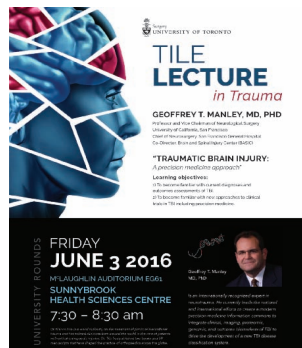
**Palmer Lecture - April 2016, L. Rotstein, D. Kooby, A. Okrainec**



# University Rounds



Gallie Day - May 2016



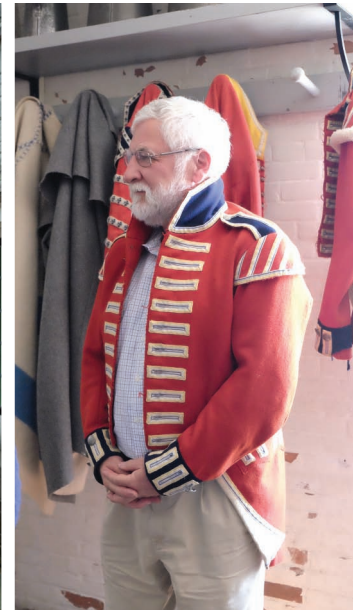
Tile Lecture - June 2016, A. Nathens, M Tile, G. Manley



# Travelling Surgical Society of Great Britain and Ireland











## Chair's Report

James T. Rutka, *RS McLaughlin Professor and Chair*

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It gives me great pleasure to provide a summary of the major achievements in the Department of Surgery from July 1st, 2015 to June 30th, 2016. Once again, this was a banner year for us in terms of reaching further milestones, and plotting a well-defined course for the future. As major highlights from 2015-16: 1) We underwent a successful 5-year review in the Department of Surgery; 2) we received more than \$55 million in research funding, the most ever in the history of the Department of Surgery; 3) we initiated the inaugural conjoint Faculty Development Day with the Department of Anesthesiology; 4) we published the first ever Global Surgery and Surgical Innovation prospectuses; 5) we played hosts to the United Kingdom Travelling Surgical Society for their Annual Overseas Meeting, June 3-11, 2016; and finally, 6) we received more than \$6 million in advancement funds, and this too is the largest amount ever received in the history of the Department of Surgery.

I should like to read a quote from the external reviewers report of the Department of Surgery: "There is no question that the Department of Surgery at the University of Toronto is the top Department of its kind in Canada and one of the top 10 in the world. Its educational programs in particular residency and fellowship are world famous, and its clinical programs are cutting edge, state of the art that compare favorably with any such program in the world." I was pleased to receive these comments from Carlos Pellegrini, Professor and Chair, Department of Surgery at the University of Washington, and John Kortbeek, Professor and Chair of the Department of Surgery at the University of Calgary.

The Department of Surgery office in the Stewart Building houses 28 members including administrative staff, the Spine Program Co-ordinator, the Plastic and Reconstructive Surgery Program Administrator, the Orthopaedics Program Administrator, the Urology Program Administrator, the Vascular Surgery Program Administrator, the General Surgery Program Administrator, the Quality and Best Practices Program Manager, the CBC Program Administrator in Orthopaedics, and various vice-chairs and directors. Finally, the Editor of the *Surgical Spotlight*, Martin McNeally, has office space in the Stewart Building. We are very fortunate indeed to have this office space, and I encourage all of you to come visit at anytime if you have not done so already.

The leadership positions in the Department of Surgery have been fairly stable this past year. One notable change in leadership occurred at the Surgeon-in-Chief level at Women's College Hospital. We bade farewell to John Semple who was Surgeon-in-Chief at Women's College Hospital from 2006-2016; and we welcomed Dr. David Urbach who will be assuming the role as Chief of Surgery as of July 1st, 2016. At Gallie Day this year, we thanked John Semple for all of his major contributions to the Women's College Hospital and the Department of Surgery during his tenure as Chief of Surgery, 2006 – 2016.

For education leadership, Melinda Musgrave was appointed to the position of Director of Education Evaluation in the Department of

Surgery, a position which is a newly appointed one in the Department.

There were two well publicized late career transitions with John Cameron and Richard Holtby both of Orthopaedics at Sunnybrook Health Sciences Centre stepping away from their practices having groomed the next generation of orthopaedic surgeons to take their places over a period of approximately 5 years.

In terms of promotions in the Department of Surgery, Joseph Noora (Cardiac Surgery, Trillium Health Partners), Jason Pennington (General Surgery, Scarborough Hospital), Najib Safieddine (Thoracic Surgery, Michael Garron Hospital) moved forward to Assistant Professor from Lecturer; Marcelo Cypel (Thoracic Surgery, UHN), Osami Honjo (Cardiac Surgery, HSC), Paul Karanicolas (General Surgery, SHSC), Graham Roche-Nagle (Vascular Surgery, UHN), and Daniel Whelan (Orthopaedics, SMH) moved forward to Associate Professor from Assistant; and Mojgan Hodaie (Neurosurgery, UHN), and Darryl Ogilvie-Harris (Orthopaedics, UHN) became Full Professors this past year. Numerous faculty members successfully completed their continuing appointment reviews including Shady Ashamalla (General Surgery, SHSC), Jaskarndip Chahal (Orthopaedics, WCH), Karen Devon (General Surgery, WCH/UHN), Gregory Fairn (General Surgery, SMH), Robert Hamilton (Urology, UHN), Edward Hickey (Cardiac Surgery, HSC), Paul Karanicolas (General Surgery, SHSC), Paul Kuzyk (Orthopaedics, MSH), Steven McCabe (Plastic & Reconstructive Surgery, UHN), Bartolomeu Nascimento (General Surgery, SHSC), Anne O'Neill (Plastic & Reconstructive Surgery, UHN), Faye Quereshy (General Surgery, UHN), Ivan Radovanovic (Neurosurgery, UHN), Joao de Rezende-Neto (General Surgery, SMH), Mohammed Shamji (Neurosurgery, UHN), and Laura Snell (Plastic & Reconstructive Surgery, SHSC).

New full time faculty recruits included Heather Baltzer (Plastic & Reconstructive Surgery, UHN), Karen Cross (Plastic & Reconstructive Surgery, SMH), Alan Rogers (Plastic & Reconstructive Surgery, SHSC), Sarah Ward (Orthopaedics, SMH), Augusto Zani (General Surgery, HSC), Savtaj Brar (General Surgery, MSH), Kristen Davidge (Plastic & Reconstructive Surgery, HSC), Gonzalo Sapisochin (General Surgery, UHN), Bobby Yanagawa (Cardiac Surgery, SMH).

In terms of advancement, as mentioned, more than \$6 million was raised in the Department of Surgery. Over \$1.6 million was secured for the Surgeon-Scientist Training Program (SSTP). And new innovation funds were established in Urology and Vascular Surgery.

We had several new Chair Announcements including Martin Gargan as the Harold and Bernice Groves Chair in Orthopaedics, Fred Gentili as the Inaugural Crean Hotson Chair in Skull Base Surgery, Aaron Nauth as the Chair in Fracture Care Research, John Semple re-appointed as the Canadian Breast Cancer Foundation Research Chair, Stephen Femes as the re-appointed Goldman Chair, Andres Lozano re-appointed as the Dan Family Chair, and Mike Tymianski as the



Harold and Esther Halpern Chair in Neurosurgical Stroke Research.

The undergraduate medical education curriculum is newly launched for September 2016. The Royal College is implementing the Competency By Design programs across all divisions. And, we have formed an education scholars committee. Barry Rubin continued to hold his education course for senior surgical residents on negotiations and practice management for the senior residents.

In Faculty Development, we have formally implemented a mentorship program for new recruits; we have been developing further mentoring metrics; and a surgical leadership training program is being developed.

We held the first Global Surgery symposium with Mr. Henry Marsh of St. George's Hospital who wrote his best seller book, "Do No Harm" and who presided over a book signing following his lecture February 19, 2016.

In Quality and Best Practices, Robin McLeod has been spearheading numerous initiatives including a program in the patient experience, developing guidelines for wound care management, surgical re-admission rates, and further development of the enhanced recovery after surgery guidelines.

In the research programs, there are 44 surgeon scientists trainees, the largest number ever in the history of the program. Funding these positions continues to be a challenge. We are relying more heavily on support from the supervisors than ever before. Hence, an important goal of the department is to achieve further endowed funds to support the SSTP.

At Gallie Day, Dr. Mohit Bhandari from McMaster University was the Gordon Murray Lecturer. The scientific program was held at the MARS Discovery site; and the dinner was held at the King Edward Hotel as a new venue for this celebration. Dr. Georges Azzie received the Tovee Postgraduate Award; Dr. Dennis di Pasquale Tovee Undergraduate Prize; Dr. Kathryn Isaac and Dr. Joshua Greenberg the D.R. Wilson Award; Dr. Nir Lipsman the Shafie Fazel Award; Dr. Teodor Grantcharov the Charles Tator Award; Dr. Michael Taylor Lister Prize; Dr. Sandra de Montbrun the surgical Skill Centre Award; Dr. Christoph Haller the Zane Cohen Clinical Fellowship Achievement Award; Dr. Toni Zhong the George Armstrong-Peters Prize; the Anand Govindarajan the B Langer Surgeon Scientist Prize.

In June, the University of Toronto played host to the United Kingdom Travelling Surgical Society. Splendid programs were held at Mount Sinai, St. Michael's Hospital, and Princess Margaret Hospital. Our guests thoroughly enjoyed visiting the sites, and were truly impressed with what the University of Toronto had to offer to its trainees and faculty. A thoroughly enjoyable social program was held at numerous venues throughout Toronto and Niagara Falls.

As headline news items, Steve McCabe and his team from Plastic and Reconstructive Surgery had successfully performed the first hand transplant procedure. Dr. Todd Mainprize successfully overcame the block to the blood brain barrier using MR guided focused ultrasound; and Hugh Scully continues to perform admirably in the headquarters of the Toronto Indy Centre.

Our faculty continue to garner numerous awards, too numerous to mention here. Some notable ones however included George Christakis receiving the John Provan Outstanding Undergraduate Surgical Educator Award; Andres Lozano the Order of Canada; Laurence Klotz Fellowship in the Canadian Academy Health Sciences; Martin McKneally the Distinguished Service Award in the Joint

Centre for Bioethics.

Our faculty were stellar recipients of numerous grants from peer reviewed agencies. Some notable multi-million dollar grant awardees included Shaf Kashavee (\$6 M); Karen Davis (\$25 M); Peter Dirks (\$11.7 M); Mark Jeschke (\$ 1 M); Ren-Ke Lee (\$2.5 M); Kazuhiro Yasufuku (\$1.25 M); Nancy Baxter (\$2.3 M); Geoffrey Fernie (\$1.9 M); Catherine O'Brien (\$1.2 M); Agostino Pierro (\$3.6 M).

Our faculty continue to publish a ultra high impact papers in the best journals. Some notable examples include Peter Dirks' work on cancer stem cells in *Cancer Cell* ; Michael Taylor in *Nature* for his work on clonal selection of medulloblastoma; Anand Ghanekar and Nancy Baxter in the *New England Journal of Medicine* for outcomes of daytime procedures performed by attending surgeons after night work; Kaitlin Szasi and Andras Kapus in *Nature Communications* for their work on the TGF-beta Pathway. Michael Fehlings in *Science Translational Medicine* for his study of riluzole protection in spinal cord injury; and Mark Jeschke in the *Annals of Surgery* for immune responses in elderly burned patients.

We have much to look forward to this coming year. We will be hosting a refresh of our Strategic Plan in the Department of Surgery as the current plan, *Transforming surgery beyond the cutting edge*, will be completed in 2017. For this event, we have Steve "Spaz" Williams, Oscar nominee, as our keynote lecturer March 7, 2017.

It has been my great honour to serve this Department of Surgery these past 5 years. I look forward to leading the Department to even greater heights these next 5 years.

Sincerely,

**James T. Rutka, MD, PhD, FRCSC, FACS, FAAP, FAANS**  
*RS McLaughlin Professor and Chair*

## Breakfast with Chair







## Research Report

Michael Fehlings, *Vice-Chair Research*

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It is with great pleasure that we can say this year was once again overwhelmingly successful for staff and students alike. Congratulations to James Rutka on his reappointment as the R.S. McLaughlin Chair of Surgery for a second five-year term. Top this reappointment, in 2014 Dr. Rutka was appointed to the Order of Ontario for his significant contributions to the development of better treatments for children with malignant brain tumors. In 2015, he was appointed Officer of the Order of Canada for his contributions to advancing treatment for pediatric brain tumours and for his international leadership in neurosurgery. We remain prouder than ever of our staff, who continue to expand their roles. Christopher Caldarone has been appointed as the Dr. Robert B. Salter Chair in Surgery at the Hospital for Sick Children. Fred Gentili has been appointed as the Crean Hotson Chair in Skull Base Surgery. Tony Finelli was appointed as Head of the Division of Urology at University Health Network (UHN). Michael Tymianski was honoured with the Harold & Esther Halpern Chair in Neurosurgical Stroke Research, UHN. Led by the Division of Urology Chair, the Department of Surgery partnered with Astellas Pharma to create the Astellas Prostate Cancer Innovation Fund, with the determination of supporting advancing and catalyzing prostate cancer research.

Over 250 scientists, surgeon-teachers, surgeon-investigators and surgeon-scientists remain the shining local, national and international stars with their promotions, grants received and high impact journal articles.

The Surgeon Scientist Training Program (SSTP) has been emulated by other departments and universities. It is with great pride that we continue to attract surgery residents to take a break from their clinical training to get a taste of the research path towards a MASc, MEd, MSc, or PhD. We had 14 new and 30 continuing residents enrolled in the SSTP for July 2016. 89% of our SSTP trainees were successful in receiving full or partial salary support from external granting agencies. Seven SSTP residents were awarded the CIP-MOH stipend.

Our surgical staff had a phenomenal research year. Whether they were Principle Investigators or co-investigator collaborative efforts, we wrapped up the 2015-16 academic year with over \$55 million in grants received. Congratulations to Peter Dirks, Michael Fehlings, Steven Gallinger, Shaf Keshavjee, Michael D. Taylor and Michael Tymianski on receiving over \$1M. Amazing is the word used for our researchers this year. The list of grant award recipients is tremendously long. To name a few, congratulations to Nancy Baxter, Sean Cleary, Sunit Das, Karen Davis, James Drake, Gregory Fairn, Anand Ghanekar, Marc Jeschke, Andras Kapus, Paul Karanicolas, Abhaya Kulkarni, Ren-Ke Li, Mingyao Liu, Cindi Morshead, Joao de Rezende Neto, Hong-Shuo Sun, Taufik Valiante, Subodh Verma, Cari Whyne, Albert Yee, Gelareh Zadeh, Toni Zhong on successfully being awarded grants from various granting agencies, such as Canadian Breast Cancer Foundation, Cancer Care, CCSRI, CIHR, NIH, NSERC, OICR. Peter Dirks had the lead role in the Stand Up To Cancer (SU2C) Canada Cancer Stem Cell Dream Team. This Team encompasses an amazing array of

researchers which includes our own Michael D. Taylor. They will receive \$11.7M over 4 years. Michael Fehlings was the recipient of one of four new Disease Team and New Ideas project that was funded by the Ontario Institute for Regenerative Medicine for over \$1.4M. He was also part of a team who received a \$1.5 M grant for 5 years from the Ontario Brain Institute to work on the “Childhood Cerebral Palsy Integrated Discovery Network” (CP-NET).

It is with immense pride that we announce the latest Order of Canada awards: John Hagen, Mentor of the Year Awardee, Royal College of Physicians and Surgeons; Michael Fehlings and Shaf Keshavjee as Fellows of the Canadian Academy of Health Sciences; Bernard Langer and Charles Tator were inducted into the Canadian Medical Hall of Fame. Michael Fehlings was also inducted as a Fellow in the Royal Society of Canada. Shaf Keshavjee, Officer, Order of Canada. Laurence Klotz, Member, Order of Canada. Andres Lozano, Officer, Order of Canada. Agostino Pierro, Officer, Order of British Empire. John Trachtenberg, Queen Diamond Jubilee Medical.

We are very pleased with the success of the 42<sup>nd</sup> Gallie Day, which reflected the excellence in the Department of Surgery at the University of Toronto. Drs. James Rutka and Michael Fehlings reflected on the major social, medical, scientific and political changes which have occurred over the past 42 years. The theme of this year's Gallie Day was “Knowledge Translation: Making Research Matter”. Knowledge Translation (KT) encompasses communication between knowledge users and knowledge makers and results in mutual learning through the process of planning, generating, disseminating, and relating existing or new knowledge to enhance the patient's health. What we know and what we do with this knowledge was highlighted throughout the symposium and the keynote speaker lecture.

The Knowledge Translation symposium, “Knowledge Translation: The Next “Blue Ocean”, which was chaired by **Michael G. Fehlings**, featured 4 exceptional speakers. **Michael Fehlings** started the symposium with his introductory talk on “The Next ‘Blue Ocean’”, which reflects the concept that successful organizations strive to develop new and innovative opportunities or “Blue Oceans” rather than simply competing for diminishing resources in “Red Oceans”. KT represents an enormous opportunity or “Blue Ocean” for academic surgeons to link discovery with practical translation and hence have real impact. **Anna R. Gagliardi** (Scientist, Toronto General Research Institute, University Health Network; Associate Professor, University of Toronto (Surgery; Institute of Health Policy, Management & Evaluation; Institute of Medical Science) gave an overview of KT in her talk, entitled “**Essentials of Knowledge Translation Practice and Science**”. Anna relayed her research experience in ensuring that stakeholders are aware of and use research evidence to inform their health and health-care decision-making, leading to improved health. She continued her talk on scientific studies of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice and, therefore, to improve the quality and effectiveness of health services. She discussed



processes, challenges, outcomes and impacts of KT. She also gave specific examples of KT strategies from her work related to guideline implementation. Anna continued with findings from a recent systematic review on integrated knowledge translation which shows that we have little evidence that researcher-decision maker partnerships lead to greater uptake of research. **Shaf Keshavjee** (Surgeon-in-Chief, Sprott Department of Surgery, UHN; James Wallace McCutcheon Chair in Surgery; Director, Toronto Lung Transplant Program; Director, Latner Thoracic Research Laboratories; Professor, Divisions of Thoracic Surgery & Institute of Biomaterials & Biomedical Engineering, University of Toronto) captivated the audience with his talk entitled **“Innovation: Opportunities, Academia and Changing the Ecosystem”**.

**Robin McLeod** (Angelo and Alfredo De Gasperis Families Chair in Colorectal Cancer and IBD Research) gave an engaging talk entitled **“Clinician Engagement - Why is it important?”**

**Andrew W. Howard** (Paediatric Orthopaedic Surgeon, Hospital for Sick Children; Professor, Departments of Surgery and Health Policy, Management & Evaluation; Director, Office of International Surgery, University of Toronto) wrapped up the symposium with his talk entitled **“A Tale of Two Results: Reflections on Real World Uptake of Injury Prevention Interventions”**

This year's **Gordon Murray Lecturer** was **Dr. Mohit Bhandari** (Professor and University Scholar Academic Chair, Div of Orthopaedic Surgery; Associate Chair-Research, Dept of Surgery; Executive Director, Center for Evidence-Based Orthopaedics; Canada Research Chair in Evidence-Based Orthopaedics, McMaster University, Hamilton, Ontario, Canada) **“To Succeed, We Must Often Fail”**. Professor Bhandari's lecture was an inspiring account of his experiences as a successful academic surgeon. His central message was that one should not be discouraged by failure—but use these challenges as learning opportunities to drive success.

This was the second year E-Poster presentations were used. Electronic Posters or E-Posters are mini oral presentations displayed on-site on a large LCD screen. We had a record number of abstracts submitted by trainees working with our faculty. There were 18 platform presentation groups with a total of 83 e-poster presentations. The Gallie Bateman Awards (for Surgeon Scientist Training Program participants) and the McMurrich Awards (for any trainee working with a member of the faculty of surgery) were judged for both platform presentations and poster presentations. The range of assorted topics and researchers highlighted the wide-ranging and immensely high quality research being conducted throughout our Department.

We had 10 excellent oral presentations, all of which were of exceptional quality. Surgeon Scientist Training Program (SSTP) residents are awarded the Gallie Bateman prizes for best oral presentation and e-poster presentation. We had two First prize oral presentation awardees. **Marisa Louridas** [Peter Szasz (SSTP), Andras B Fecso (SSTP), Michael G. Zywiell (SSTP), Parisa Lak, Ayse B. Bener, Kenneth A. Harris, Teodor P. Grantcharov] gave an excellent talk entitled, **“Practice does not always make perfect: Need for selection curricula in modern surgical training”** (Teodor P. Grantcharov, Supervisor). **Kim Tsoi** [Sonya MacParland, Max Ma, Vincent Spetzler, Juan Echeverri, Ben Ouyang, Nicolas Goldaracena, Johann Mortiz Kath, John Conneely, Benjamin Alman, Markus Selzner, Mario Ostrowski, Oyedele Adeyi, Anton Zilman, Ian McGilvray, Warren Chan] was tied for 1<sup>st</sup> prize with her enthralling nanoparticle presentation entitled, **“Towards understanding nanoparticle uptake by the liver: The role of flow dynamics, and cellular phenotype”** (Benjamin Alman and Warren Chan,

Supervisors). **Mohamad A Hussain** [Muhammad Mamdani, Jack V Tu, Gustavo Saposnik, Deepak L Bhatt, Subodh Verma, Mohammed Al-Omran] received second prize for his presentation entitled, **“Carotid surgery versus stenting: A contemporary population-based analysis of long-term outcomes”** (Mohammed Al-Omran, Supervisor). Third prize was received by **James P. Byrne** [Stephanie Mason (SSTP), David Gomez, Avery B. Nathens] for his interesting work entitled, **“Timing of venous thromboembolism prophylaxis in severe traumatic brain injury: A propensity-matched cohort study”** (Avery B. Nathens, Supervisor).

First prize for SSTP Resident E-Poster presentation was awarded to **Peter Szasz** [Esther Bonrath, Marisa Louridas (SSTP), Andras Fecso (SSTP), Brett Howe, Adam Fehr, Michael Ott, Lloyd Mack, Kenneth Harris, Teodor Grantcharov] for his poster presentation entitled, **“Setting performance standards for technical and non-technical competence in General Surgery”** (Teodor P. Grantcharov, Supervisor). Second prize was won by **James J. Jung** [Teodor Grantcharov], entitled **“Approach to asymptomatic paraesophageal hernia: Elective laparoscopic hernia repair or watchful waiting?”** (Teodor P. Grantcharov, Supervisor). **Stephanie Mason** [Avery Nathens, Alejandro Gonzalez, Paul Karanicolas, Rob Fowler, Marc Jeschke] received third prize for her poster presentation entitled, **“Persistent morbidity requiring urgent readmission after major burn injury: A population-based analysis”** (Avery Nathens and Marc Jeschke, Supervisors).

The McMurrich Awards are presented to research trainees who are not in the Surgeon Scientist Training Program. The oral presentations were exceptional. The first place award was won by **Rachel Vanderlaan** [Yaqina Yana Fu, Jingyi Pan, Anouk Martine-Teichert, Jiaquan Zhu, Mauro Lo Rito, Jason Maynes, John Coles, Jaques Belik, Christopher Caldarone] for her oral presentation, entitled, **“Myofibroblast deposition and altered pulmonary vein reactivity contribute to disease progression in a surgical model of pulmonary vein stenosis”** (Christopher A. Caldarone, Supervisor). **Christopher D. Witiw** [Lindsay A. Tetreault, Fabrice Smieliauskas, Branko Kopjar, Eric M. Massicotte, Michael G. Fehlings] received second prize for his oral presentation entitled, **“Surgery for degenerative cervical myelopathy: A patient centered quality of life and health economic evaluation”** (Michael G. Fehlings, Supervisor). Third prize was received by **Amine Mazine** [Cedric Manlhiot, Vivek Rao, Edward J Hickey, Shakira Christie, Tirone E David, Maral Ouzounian] for work entitled, **“Long-term outcomes of the Ross Procedure versus mechanical aortic valve replacement: A propensity-matched cohort study”** (Maral Ouzounian, Supervisor).

McMurrich Awards were also bestowed upon a group of individuals who presented remarkable e-posters. First prize went to **Reinhard Dolp** (Marc Jeschke, Saeid Amini-Nik – Supervisors) for his presentation entitled, **“Burn derived stem cells are comparable with other sources of stem cells”**. Second prize was awarded to **Janne Folke Bialik** (Andras Kapus, Supervisor) for the presentation entitled, **“Mechanisms underlying the induction of a profibrotic epithelial phenotype during renal fibrosis”**. **Akihiro Ohsumi** [Katherine Marseu, Peter Slinger, Karen McRae, Ilker Iskender, Manyin Chen, Kohei Hashimoto, Hisashi Oishi, Hyunhee Kim, Zehong Guan, David M. Hwang, Thomas K. Waddell, Mingyao Liu, Shaf Keshavjee, Marcelo Cypel] received third prize for presentation entitled **“The effect of sevoflurane in pre- and post-conditioning of ischemia-reperfusion injury in a rat lung transplantation model”**.

Every year we honour our faculty with research awards that demonstrates the great work continuous array of magnificence.



**Bernard Langer Surgeon Scientist Training Program Award** - awarded to an outstanding graduate of the Surgeon Scientist Training Program in the Department, who shows the greatest promise for a career in academic surgery went to **Anand Govindarajan** (Surgeon Investigator, General Surgery); **George-Armstrong Peters Prize** - awarded to a young investigator who has shown outstanding productivity during his initial period as an independent investigator as evidenced by research publications in peer reviewed journals, grants held, and students trained was awarded to **Toni Zhong** (Surgeon Investigator, Plastic and Reconstructive Surgery); **Teodor Grantcharov** (Surgeon Scientist, General Surgery) - **Charles Tator Surgeon Scientist Mentoring Award** - recognizing individual supervising participants in the SSTP who emulate Professor Tator's qualities, namely excellence in research, commitment to SSTP mentoring and dedication to promotion of Surgeon-Scientists; **Michael D. Taylor** (Surgeon Scientist, Neurosurgery) - **Lister Prize** - awarded to an investigator who has shown outstanding and continuing productivity of international stature as evidenced by research publications, grants held, students trained and other evidence of stature of the work produced.

The sixth **Shafie Fazel Award**, established in memory of Dr. Shafie Fazel is presented to an individual who has demonstrated outstanding accomplishments during his/her residency both as a surgeon and as an investigator, was presented to **Nir Lipsman** (PGY VI, Neurosurgery), a recent SSTP graduate who obtained his PhD with Professor Andres Lozano. The **Zane Cohen Clinical Fellowship** is presented to a clinical fellow who has practiced and achieved at the highest level while being a clinical fellow in the Department of Surgery was awarded to **Christoph Haller** (Fellow, Cardiovascular Surgery). The Tovee Award is presented to an academic staff member of the Department of Surgery who has made the greatest contribution to the educational activities of the Department, as exemplified by Dr. E. Bruch Tovee during his outstanding career. This year's recipient of the **Tovee Postgraduate Prize is Georges Azzie** (Surgeon Teacher, General Surgery), and **Dennis Di Pasquale** (Surgeon Teacher, Orthopaedics) received the **Tovee Undergraduate Prize**. The **Surgical Skills Centre Distinguished Educator Award** demonstrates the Centre's commitment to surgical skills education. This award recognizes those individuals who have made exemplary, innovative contributions to teaching and learning in the Surgical Skills Centre over the past year. This was presented to **Sandra de Montbrun** (Surgeon Scientist, General Surgery). **D.R. Wilson Award for teaching** is made annually to the surgical resident who is rated by undergraduate students as being an outstanding teacher. This year we have two residents who are recipients of this award, whose teaching has been highly evaluated by medical students. Both of these residents demonstrated positive attitudes toward teaching and were considered good surgical role models for undergraduate medical students. The awardees are **Joshua Allon Greenberg** (General Surgery) and **Kathryn Vanessa Isaac** (Plastic and Reconstructive Surgery).

The 52 judges for the e-poster competition as well as the 18 timers, who volunteered their time for the e-poster judging deserve special thanks, as well as the Research Committee members who reviewed and judged the oral presentations. As we take pride on how great the Day and Evening awards ceremony went, we need to acknowledge the tremendous effort it took from everyone involved. The Day could not have gone as well as it did without everyone's participation and collaborative efforts. Thanks again this year to **Andrea McCart** for assigning the judges to the posters, **Natalie Coburn** and **Jack Langer** for expertly moderating the sessions, and **Sylvia Perry** for making sure the day's and evening's preparations were adhered to perfection.

The Department of Surgery Research Committee had a very productive year. January 8 Research Rounds lecture by Dr. Lisa McKerracher from Cambridge, MA, was entitled, "The translational pathway of a novel strategy to facilitate CNS regeneration: From discovery to consumer delivery". She gave us a perspective to understand the different types of clinical trials that are underway to treat spinal cord injury. She also spoke about the components of an Investigational New Drug (IND) application to the FDA and a Clinical Trial Application (CTA) to Health Canada. She gave us her extensive knowledge on understanding how regenerative medicine may impact future treatment of spinal cord injury. She also touched on the expected outcomes for patients with spinal cord injury. Overall, she was an excellent choice this year as the Ben Alman Research Rounds Lecturer.

**Michael Fehlings** hosted the second PGY 1 & PGY 2 Research Orientation on Monday November 9, 2015, at the Peter Gilgan Centre for Research and Learning (PGCRL) Gallery. Over 40 residents, Surgeon Scientist Training Program (SSTP) trainees, former SSTP trainees and staff attended the event. Michael welcomed everyone for taking time off their evening for joining us. He asked each individual to introduce themselves and state their present status. He stated that the evening will be filled with very interesting short talks from staff and residents who have been in the Surgeon Scientist Training Program or who are still in the Program. Their overview of their personal experience will enlighten the residents who have thoughts of entering the SSTP or who will be starting the SSTP as of July 2016. Michael began by informing the residents that the SSTP was the best Program worldwide for residents to pursue a degree in their 3<sup>rd</sup> or 4<sup>th</sup> year in residency – it is a 2 – 4 year break in clinical training to concentrate on a research topic which is of interest to the resident. The research areas that can be tapped into are biological science, clinical epidemiology, or education. It is very important to click with a supervisor with the expertise to allow you to work at achieving your degree. The Dept of Surgery continues to be very committed to the SSTP.

**Albert Yee** is the Vice Chair Research for the Division of Orthopaedic Surgery, University of Toronto. Albert was in the SSTP from 1994 – 1996, working with Drs. Rod Davey and Earl Bogoch toward his MSc. Albert started his talk by emphasizing that the current state of the art in surgical practice changes rapidly. It is very likely that what and how you practice by mid-career will be very different than what was considered 'gold' standard of care during your surgical residency. These changes in practice occur directly because of research discoveries (either directly in the field or indirectly impacted because of new knowledge outside the field). Keeping current is important - medicine is a life long process. There is a tremendous opportunity to be involved in academic surgery; keep an open mind. The SSTP is an opportunity not to be missed during surgical residency.

**Andras Kapus** is the Associate Vice Chair Research in the Department of Surgery, University of Toronto. Andras spoke about the unsurpassed opportunities that the SSTP offers in terms of both researchable topics and the availability of the selectable supervisors, both within the Department of Surgery (including > 170 surgeon scientists, surgeon investigators and 48 basic scientists) and at U of T in general. He was also alluding to the 'psychology' of being a successful SSTP trainee, calling attention to challenges of the transition from a very structured to a predominantly self-motivated and organized lifestyle, and the most effective strategies that minimize the stress and sense of incompetence, and maximize the creativity and productivity of the trainees.

**Rebecca Gladdy** is a Surgical Oncologist at Mount Sinai



Hospital/Princess Margaret Cancer Centre. Her clinical expertise and basic science laboratory are based on the management and molecular basis of soft tissue sarcomas. She was in the SSTP from 1998 – 2003 working with Drs. Jayne Danska and Cindy Guidos and received her PhD in cancer biology. In her comments to the residents, she highlighted that basic science is a creative and rewarding career as it allows one to ask fundamental questions based on clinical observations that are unanswered. The SSTP affords trainees the time to learn how to critically think, design and interpret experiments to answer a question and develop written and presentation skills. Although basic science is perceived as a more challenging stream, it is really critical that surgeons continue to develop translational research programs that interface with basic science so that clinical challenges in our surgical patients are examined at a more fundamental level.

**Nancy Baxter** is a colorectal surgeon and the Head of the Division of General Surgery at St. Michael's Hospital. She is a Health Service Researcher with interests in screening effectiveness, long-term survivorship of cancer survivors and quality of surgical care. She was in the SSTP from 1993-1997 working with Dr. Robin McLeod and received her PhD in clinical epidemiology. Participation in the SSTP gave her the tools to develop her current program of research; she acquired expertise in research methods, critical thinking and medical writing. She states that training in clinical epidemiology provides you with fundamental knowledge that is easily transferred – you are not tied to a particular molecule or disease. This is a wonderful path for those with clinical curiosity – you have the ability to ask and answer clinically important questions and have an impact on medical care in a relatively short period of time.

**Abhya Kulkarni** is the Director of the Neurosurgery Residency Program and Senior Scientist at the Hospital for Sick Children. He was in the SSTP from 1998 – 2003 working towards his PhD in clinical epidemiology with Dr. James Drake. Ab stated that research in clinical epidemiology has several attractive features. First, the research that you do is immediately accessible in daily clinical practice. Second, the impact of your work can be immediate, sometimes leading to instantaneous changes in practice worldwide. Third, the research techniques you learn in clinical epidemiology are widely applicable and transferable across a range of clinical subspecialties. Finally, gaining expertise in clinical epidemiology makes you a much more sophisticated consumer of the medical literature and, in many ways, a better clinic decision-maker.

**Saswata Deb** is a recent cardiac surgery SSTP graduate and a cardiac surgery PGY IV resident. His supervisor and mentor is Dr. Stephen Fremes and his PhD thesis is “Investigating Patient and Surgical Factors Affecting Early and Late Outcomes after Coronary Artery Bypass Grafting Surgery”. In his own words, the SSTP is a real unique program in North America and offers surgical residents a great opportunity to pursue a graduate degree while in residency. In addition to funding support, the SSTP has a wealth of resources, including a world class faculty who can be your supervisor and mentor. This undoubtedly is one of the best times in your career to pursue formalized research education, because not only do you get to learn about different scientific methodologies, but there is ample opportunity to apply that knowledge while undertaking research in the field of your specialty and producing quality publications.

**Sebastian Tomescu** is a recent SSTP graduate and new Lecturer/Surgeon Investigator, Staff Orthopaedic Surgeon at Sunnybrook Health Sciences Centre. He impressed upon the excellent resources and support available through the SSTP, and the incredible breadth of research opportunities that exist at UofT. He advised residents to explore various labs and areas of research in order to find an area they feel truly passionate about which will undoubtedly

lead to a productive and rewarding experience.

**Christopher Ahuja** is a PGY-4 Neurosurgery SSTP, pursuing a PhD. Research focus is on human stem cell research for traumatic spinal cord injury with Dr. Michael Fehlings at Toronto Western Hospital, University Health Network. He indicated that the SSTP provides residents with an invaluable safeguard to undertake graduate training and aids in developing a rich network of mentors. I would encourage upcoming surgeon-scientist trainees to explore fields they are passionate about, engage a supervisor early on, apply broadly to funding opportunities, and strongly consider the unique resources offered by the SSTP.

**James Byrne** is a PGY-4 General Surgery SSTP, pursuing a PhD in clinical epidemiology at IHPME. Research focus and career interest is in trauma surgery. He works with Dr. Avery Nathens at Sunnybrook Hospital. James made several important remarks about the SSTP. Come into the SSTP inspired to pursue research in a field that is related to your chosen career path. The training and opportunities in the Program are best used when you know what you're using them for – not just to “get a Masters”. Get to know your potential supervisor personally, their track record in mentorship, and ask their previous graduate students what it was like to work with them – This is someone you will rely on to help guide you in the coming years. It's important that you get along well and that they are accessible. When forming your thesis committee, choose people who you are sure will bring methodological or content expertise. Keep in mind that you will have to bring all of these very busy people together several times for your thesis proposals and/or defense. Apply to as many external funding agencies as possible; your chances of getting funded are good. The biggest attributable factor to not getting it, is not trying. Seriously consider the clinical epidemiology stream of training if it relates to your field of work. The training in clin epi at U of T is truly excellent, and in a matter of one year you will have a lasting knowledge of study design and statistics. And despite the rumours, the slightly heavier coursework actually helps your own research, as it is taught by clinicians who do what you are doing, and the course assignments are often based on your own work.

**Carol Anne Moulton** is a General Surgeon at TGH and Scientist at the Wilson Centre. She was in the SSTP from 2004 – 2009 working towards her Masters of Education (MEd), as well as a PhD in cognitive psychology with Drs. Richard Reznick and Glenn Regehr. Her research interests include the psycho-sociological considerations of surgical judgment and error. She has had several Masters students through the SSTP and gave some advice on some potential areas for conducting educational research. She described various pathways from technical skills/lab based research to naturalistic qualitative research depending on the area of interest and the research question. She recommended getting involved in some way with the Wilson Centre activities as they provide personal connections as well as theoretical knowledge for any academic pursuit in education research. There are several surgeons across the department and different hospitals that are taking students. She mentioned Teodor Grantcharov and Allan Okrainec as examples. In the end, her message was that educational questions should be considered broadly (power dynamics, culture, teamwork, technical skills, etc) and the Masters/PhD student should follow and develop their areas of passion.

Although **Andrew Howard** was not able to attend, he felt it very important for the Global Health surgery information to be available to all residents. Surgical trainees may arrange research and/or scholarly electives abroad as part of their royal college training program. In addition, selected residents may be able to pursue master's degree training in global surgery via a variety of science and/or education degree programs offered by the University of Toronto. Faculty



members from almost every division are active in global surgery education, research, and scholarship. Residents who are interested in pursuing training or experience in global surgery are encouraged to contact Andrew Howard, professor of surgery and director, Office of International Surgery, [andrew.howard@utoronto.ca](mailto:andrew.howard@utoronto.ca).

Michael Fehlings hosted the 2<sup>nd</sup> Research Strategic Planning Retreat, which was held on Friday, January 18, 2016 at the BMO Education & Conference Centre, Krembil Discovery Tower, TWH. It was extremely successful. **Dr. James Rutka** welcomed everyone to the second annual Department of Surgery Research Retreat. He discussed the importance of surgical research as the foundation upon which the Department and hospital-affiliated Research Institutes grow and continue to flourish on a local, national, and international scale. With continued success in publications, citations, funding, and patents, the Department of Surgery's Strategic Plan prioritizes the sustained and expanded support of the SSTP and faculty scientists. **Dr. Trevor Young**, Dean of the Faculty of Medicine, spoke of the importance of the Department's work within the Faculty of Medicine's contribution to the Canadian medical landscape. He commented on the growth in clinical and research output during Dr. Rutka's term as Chair, as well as recognizing the outstanding contributions of Drs. Shaf Keshavjee, Todd Mainprize, Steven McCabe, and Ronald Zuker. **Dr. Michael Fehlings** reviewed the objectives and outcomes of the 2015 Retreat, citing the resident Town Hall meetings and Career Nights as some of the year's notable developments. He reviewed the 2016 objectives: To provide an update on the progress of the Surgery Research Program, as set in the 2015 retreat.

To engage the Research Institutes and University partners in exploring collaborative strategies for improved career and research outcomes.  
To develop strategies that supports the sustainable growth of the SSTP.  
To identify priority actions for the next 12-18 months that will advance collaboration and advancement.

Dr. Fehlings began the day by reviewing the profile of the Department of Surgery Scientists, with the majority holding appointments at hospital-based Research Institutes.

**Dr. Andras Kapus**, Associate Vice-Chair of Research at the Department of Surgery, expanded on the faculty profile through the presentation of ranks, trends, and opportunities/challenges.

**Dr. Ori Rotstein** spoke about the Continuing Appointment Review (CAR) process, highlighting the following points:  
Memorandum of Agreement (MOA): Job description and expectations of new recruits.

- Role of RIs: Delegates will sometimes attend reviews, but it is not consistent. At times, letters of recommendation written by RI supervisors will be provided for the CAR packages.
- Outcomes: Reviews yield recommendations for further career growth.

It was emphasized that the CAR is an effective process that provides valuable feedback, but there is room for growth when it comes to including the Research Institutes in a candidate's evaluation. RI input could leverage opportunity for more complete feedback, collaborations, and grant options.

**Dr. Richard Hegele**, Vice Dean of the Faculty of Medicine, spoke about the evolving role of innovation in medical research. He acknowledged its prioritization in both healthcare settings and government agendas, such as Prime Minister Trudeau's recent commitment to CCRN. He spoke of the importance of recognizing a faculty member's contribution across a wide diversity of areas in his or

her evaluation process, as individual priorities can still be aligned within the Department and/or Research Institute's expectations. Dr. Hegele discussed the need for medical institutions to adapt within resource-constrained settings and praised the Department of Surgery for its high-impact outputs despite these limitations. Contributions as such and the collaborative efforts of the Clinical Affairs group at TAHSN have helped the Faculty of Medicine secure the 11<sup>th</sup> place spot in 'Performance Business' in Forbes' Higher Education rankings. Dr. Hegele concluded by emphasizing the need for collaboration through industry partners, higher awards, and global organizations.

**Dr. Norman Rosenblum**, Associate Dean of Physician Scientist Training and Director of the Clinical Investigator Program (CIP), reviewed the structure of the CIP. Trainee feedback has provided quality ratings of 4.7/5, with 89% of trainees indicating their intent to work as a physician scientist.

Looking ahead, the CIP will consider further integration of clinical and research activities, as well as best practices in professional skill development. There will also be consideration of cohesion with the surgeon-scientist educational pathway. Interdisciplinary problem-solving and knowledge translation will become increasingly important, as they will leverage collaborative efforts across the Faculty.

**Dr. Bernard Langer**, Professor Emeritus of the Department of Surgery, spoke about the initiation of the Surgeon Scientist Training Program in 1983. He discussed the importance of clinical research in the longevity of both the Department of Surgery and within the context of Canadian healthcare. Sustainable fundraising is crucial for the SSTP, as it is the vehicle through which this excellence in research will be upheld. Dr. Langer discussed the need for individual scientists to demonstrate pursuit of meaningful projects as leverage for bootstrapping onto existing resources and joining teams that have already received larger grants. He also recommended the need for a regularly maintained donor database and keeping these individuals updated on the clinical achievements of the scientists. By capitalizing on existing successes, donors will feel inclined to increase donation value and/or frequency.

**Dr. Avery Nathens**, spoke about program sustainability as a result of access to resources and a supportive environment. He credited his own career trajectory to having an open mind to new opportunities, and to having excellent mentorship. He emphasized the importance of personal growth within the SSTP, as it provides a risk-free environment to pursue one's own interests and avenues. He concluded by discussing how future investments should focus on great leadership, innovation, and strong mentorship.

**Mr. David Grieco**, Senior Development Officer for the Department of Surgery, provided an overview of the SSTP fundraising highlights and strategies. The highlights of 2015 included the Bernard & Ryna Langer Chair in General Surgery, Frank Goerc Cardiovascular Research Funds, and the additional funding of the SSTP as an add-on to the Divisions of Plastic & Reconstructive Surgery and Urology. Fundraising strategies for the SSTP will focus on major gifts, alumni relations, and networking with faculty and interdisciplinary teams. Other SSTP models will include an endowed Vice-Chair of Research, Divisional Chairs, SSTP scholarships, and Post-SSTP funding through Rising Stars Professorships.

In closing, the afternoon was a discussion period between the Research Institute Directors or designates, surgery staff and SSTP residents attending. The Retreat focused on the University-Hospital Collaboration in Fostering Excellence in Surgical Research. The following personnel from the Research Institutes attended and participated: **Jim Dennis** representing Jim Woodgett, Director of



Research, Mount Sinai Hospital; **Geoff Fernie**, Director – Toronto Rehabilitation Institute (TRI); **Mansoor Husain**, Director, TGR; **David Jaffray**, Director, TECHNA; **Michael Julius**, Vice President Research, Sunnybrook Health Sciences Centre and Sunnybrook Research Institute; **Michael Salter**, Chief of Research, Hospital for Sick Children; **Vuk Stambolic** representing Brad Wouters, Interim Director, OCI/PMH; **Ori Rotstein**, Surgeon-in-Chief, representing Art Slutsky, Vice President of Research, St. Michael's Hospital; **Donald F. Weaver**, Director, Krembil Research Institute, UHN (formerly Toronto Western Research Institute).

Feedback from the SSTP Career Night, which was held on Monday, February 29, 2016, was very positive. Michael Fehlings hosted the evening, which comprised of an informal panel discussion with surgical faculty who have a strong interest in helping residents succeed in their careers. Faculty was from multiple surgical specialties, ranging from junior to senior surgeon scientists and surgeon investigators. Faculty included Mitesh Badiwala, Nancy Baxter, Sav Brar, James Drake, Peter Ferguson, Tom Forbes, Paul Karanicolas, Girish Kulkarni, Carol-Anne Moulton, James Rutka, Tom Waddell, Paul Wales, Albert Yee and Gelareh Zadeh. The focus of the conversation was how to plan the next steps of your careers, including how to best plan your fellowships, how to be successful when looking for jobs, how to maintain work-life balance, and more. Each of the panel gave their personal perspective of their journey from resident to their present role. This was an informal event with a variety of topics including, how to be successful in the job search, achieving a clinical-research-life balance, choosing the right fellowship, early career funding, what advice would you give to current SSP trainees that you wish you had during residency? Eight-five percent found the event very helpful, 75% thought the length was perfect, and all respondents said they would

welcome a similar event in 2017. All topics were appreciated, particularly fellowship and contract discussions.

Michael Fehlings and the Department of Surgery Research Committee promise to plan updates from 2015 and new captivating endeavours. New Research Committee members, Mark Erwin, Rebecca Gladly and Paul Karanicolas will be introduced in September 2016, with a special thanks to the pioneer members, Karen Davis, Steven Gallinger, and David Urbach.

The list of faculty members who were successfully promoted continues to grow. Jamil Ahmad, Brian Ostrow, Jason Pennigton, Najib Safieddine, and Jory Simpson were promoted to Assistant Professor. Marcelo Cypel, Leo Da Costa, Amr Elmaraghy, Rajiv Gandhi, Osami Honjo, Sevan Hopyan, Paul Karanicolas, Mark Peterson, Graham Roche-Nagle, Oleg Safir, Tom Schweizer, Markus Selzner, Christine Werneck, and Daniel Whelan were promoted to Associate Professor – while Nancy Baxter, Timothy Daniels, Teodor Grantcharov, Mojgan Hodaie, Andrew Howard, William Hutchison, Wolfgang Kuebler, David Latter and Darryl Ogilvie-Harris were promoted to Full Professor.

As we wrap up another successful year, it is obvious that research plays an extremely significant role in our staff and trainees academic life. It is anticipated that the future research accomplishments will expand our goals and objectives.

A very special thanks to **Val Cabral, Research Program Manager**, for her implausible dedication and hard work in organizing every aspect of the Research Office.

## Gallie Day Poster Session







## Postgraduate Education

**Ron Levine, Director**

The Department of Surgery at the Postgraduate level is the largest in Canada with 276 residents and 269 clinical fellows. There have been many accomplishments and successes in the 2015–2016 academic year.

There are 11 surgical programs: 7 CaRMS entry and 4 subspecialty programs. The backbone of the 11 surgical programs is the Program Director and their administrative assistant. It is a huge thankless job to coordinate and maintain each of these surgical specialties.

Our surgical positions for all of our CaRMS entry specialty programs are sought after by medical students from across Canada. This year all CaRMS entry surgical positions were filled in the 1<sup>st</sup> reiteration. Most of these positions were filled with our top ranked applicants. Many of the surgical specialties also take IMG's (International Medical Graduates) and visa trainees from around the world.

The first two years of training in surgery is known as Surgical Foundations. Besides attending specialty-specific academic endeavors, the Surgical Foundations residents attend the Surgical Foundations lectures to prepare them for the Surgical Foundations Royal College Exam. Dr. Blitz coordinated the weekly lecture seminars and he also organized the practice exam that took place in February 2016.

The surgical skills prep camp entered its third year during 2015–2016. This Prep Camp is mandatory for all PGY1 surgical residents and runs for the first two weeks of July. It is an intensive program of didactic lectures and learning of fundamental surgical skills. There is an exam at the end of Prep Camp. Several of the surgical specialties have their own prep camp either before or after the Surgical Prep Camp as well.

Also all PGY1 residents attend a surgical skills course in the fall. Each of the surgical specialties also runs their own courses where surgical skills specific to their specialty are taught. Lisa Satterthwaite is the Senior Manager of this unique skills lab and Dr. Oleg Safir is head of the Surgical Skills Lab and has brought many new improvements to the Lab.

The Department of Surgery is moving towards competency-based teaching and assessment. In keeping with this, all of the PGY1 residents have to successfully pass three competencies, they need to pass the exam at the end of Prep Camp, they have to pass the Surgical Foundations Practice Exam and they have to attend at least 75% of the didactic lectures.

Some of the surgical specialties have started to meet with the Royal College to develop Competency by Design (CBD) for their specialty. Over the next 5 years all surgical specialties will have to adopt CBD.

There are a number of academic days to enhance the educational experience of the surgical resident. In July 2015, the Core Surgery residents attend "The Surgeon in Society" where communication skills with respect to difficult topics including end-of-life decision-making were discussed. This is run by Dr. Karen Devon and Dr. Ron Levine.

Dr. John Murnaghan runs "Residents as Teachers" for the PGY2 residents, which is a workshop to teach our residents to be better teachers. There is also an orientation day organized by Dr. Ron Levine for all of our new first year residents. All of our first year residents attend the ATLS course coordinated by Dr. Jameel Ali at St. Michael's Hospital. There is also a Practice Management Seminar offered to the graduating senior residents run by Dr. Barry Rubin. This seminar covers topics such as negotiating your first staff position, finances and tax planning, medical office setup, insurance considerations and a multitude of other important areas of interest to surgeons just finishing residency.

Case logging on POWER is now mandatory for all surgical residents. The Program Directors can monitor the operating experience of the learner at each hospital and can compare the experience from one hospital to another using the data from POWER case logging.

PGCoreEd is a series of interactive modules based on the CanMEDS Roles. Each module takes 4 to 5 hours to complete and there is an exam at the end of each module. The results of the exams are provided to the resident, Program Director and Director of Postgraduate Education. Successful completion of 8 modules is required for all residents finishing their PGY2 year.

The fellowship programs in the Department of Surgery are extremely important. Not only do the fellows learn important skills that they take back to their countries of origin, but they all bring their experiences from around the world to our residents and medical students. At the present time we have 269 fellows in the Department of Surgery. The fellowship committee under the leadership of Dr. David Latter has moved to formalize all the fellowships in the Department of Surgery with definitive goals and objectives and uniformity of salaries for each fellowship. In an effort to improve the social environment for our clinical fellows and their families the Department hosts an annual BBQ in August specifically inviting spouses and children so that that family can get to know each other.

The running of the Department of Surgery with 276 residents, 269 fellows and 250 faculty members is a huge endeavor. This is masterfully done by Tess Weber and Robert Gardin.

### Fellows Barbeque 2015







## Undergraduate Education

**George Christakis, Director**

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Undergraduate Education in the Department continues in its mission to provide students with quality of education and instruction that is among the best in the world.

**Prelude to Surgery:** Under the stewardship of Melinda Musgrave, the 'Prelude to Surgery,' has completed one year. From initial feedback, the course has been well accepted by students and addresses many of the shortcomings of the previous course. The level of involvement and enthusiasm of the resident instructors at the course is encouraging and commendable. This course is a flipped-classroom PBL-type small group sessions from Monday through Thursday. These morning sessions are from 8:00 a.m. to 12:00 p.m. The day ends with a two-hour hands-on technical skills session from 1:00 – 3:00 p.m. The Friday sessions remain unchanged.

**New format of Surgical clerkship from September 2016:** Launching from the mandatory 3-week General Surgery sub-rotation instituted in September 2015, the Undergraduate Education Committee recommended that the 8-week surgical clerkship course be modified to a 2 sub-rotation model of 3 weeks each. General Surgery is to continue to be a mandatory 3-week sub-rotation. The new format will be as follows: 1 week, 'Prelude to Surgery,' 3-week sub-rotation and 3-week sub-rotation, final week of seminar, examination preparation, and oral and written examination. This change is effective September 2016.

**Web-based NBME Surgery clerkship written examination:** As of July 2015, the end-of-clerkship examination has transitioned into a web-based format. Also of note, starting from the 2016-17 academic year, students based at the Mississauga Academy of Medicine will be able to attempt their examination in that location.

**Recognition of outstanding resident teachers:** Recognizing the integral role of residents as teachers, particularly during clerkship, we have been regularly identifying excellent resident teachers and working with the Department's Director of Postgraduate Education's office to provide feedback and commendation to these individuals and the leaders in their respective divisions. I wish to thank Ron Levine and his team for their gracious cooperation in this regard.

**New Director, Education Evaluation and Innovation:** I would also like to congratulate Melinda Musgrave who took on this very important role in 2015. We look forward to some effective and innovative ways to identify our truly outstanding teachers.

**On-call feedback forms process implemented:** Following the formalizing and enforcement of 1:4 in house call for clinical clerks, on-call formative feedback forms have been distributed. These forms are to be completed while on call and submitted at the end of the surgery rotation. Clerks will be on a pre-scheduled call roster. If the service that they are on does not offer 'in-house' overnight call, then they are to take call on General Surgery or Orthopaedic Surgery.

**Longitudinal Integrated Curriculum (LIInC) project:** The second year of the Longitudinal Integrated Curriculum was successfully completed with 22 students moving on to their fourth year. By all accounts, the initial

year has proceeded to plan and we expect some feedback in due course. The program has expanded to other academies in the 2015-16 year.

**Pre-clerkship initiatives:** Raising the interest and attracting the brightest minds to the field of Surgery continues to be the focus. The Surgical Education And Discovery (SEAD) program continued its success. Other groups such as the Surgical Longitudinal Experience (SurgicLE), Student Surgical Skills Development (S3D) and the various Surgical Interest Groups (SiG), continue to thrive. Congratulations to Surgery Pre-clerkship Director, Ron Kodama and all the student leads and other staff for their outstanding efforts.

### George Christakis Provan Award





## Continuing Professional Development

**Terry Axelrod**, *Director and Chair*

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### 2015-16 Activities

- 28 CE events run through the CPD office, with the majority fully managed, the remainder with sponsorship for accreditation only. This continues a trend over the previous three years in CPD managed and accredited events.
- Superb success with enrollment in the hundreds for several courses, such as the Update in General Surgery 2015 (400), Urology Update 2014 (193) as examples.
- New programmes were initiated at International locations, such as the World Society of Stereotactic and Functional Neurosurgery in Mumbai, India attended by 350 people. The International Conference of Surgical Education and Training was held under Dept of Surgery Sponsorship with CPC accreditation in Copenhagen, Denmark.
- Many faculty members involved as Chair and faculty in CE events nationally and internationally outside of the CPD jurisdiction.







## Office Of International Surgery

Andrew Howard, *Director*

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### Global Surgery 2015-2016

This year I have chosen to report on and highlight the international surgery work by some of our residents. Global surgery is a young and evolving field with a bright future. Read on. Among our current residents we have inspiring academics who lead some of the most important global surgery projects being published today.

To illustrate the range of involvement, I have interviewed Maeve Trudeau (PGY4 general surgery), Anna Dare (PGY2 general surgery), Scott Kim (PGY1 orthopaedics), and Joshua Ng-Kamstra (PGY4 general surgery). This is by no means an exhaustive list. We have many other residents and faculty working here and with partners worldwide.

### What is your most recent contribution in the global surgery sphere?

MT - A paper in *Seminars in Pediatric Surgery* entitled, "Injuries and surgical needs of children in conflict and disaster: From Boston to Haiti and beyond", This built on our previous publication in *JAMA Surgery*, "Surgical Care of Pediatric Patients in the Humanitarian Setting: The Médecins Sans Frontières Experience, 2012-2013." Both of these publications assess the specific needs of the surgical pediatric population in conflict and disaster humanitarian settings, and the more recent paper also addresses professionalization of pediatric surgical interventions in humanitarian settings.

AD - I have been involved with several international Commissions over the past few years which have sought to build an evidence and policy base around the need for greater access and equity in global surgical care. This includes the Lancet Commission on Global Surgery, the Lancet Commission on Global Cancer Surgery and the Lancet Series on Women's Health, Equity and Cancers the latter of which was published this month. (Anna has in fact been first author on many of the papers produced by the Lancet commissions - ed.)

SK - This past February I travelled to Addis Ababa, Ethiopia for 3 weeks to observe as a medical student in the orthopedics department at Black Lion Hospital. I am analyzing their results of the use of a distal locking intramedullary nail system (the SIGN nail) for tibia and femur fractures. The nails are implanted without the use of fluoroscopic guidance and thus are intended for use in low resource settings.

JN-K - in April 2016, with collaborators from around the world, I authored a [roadmap for individuals and institutions](#) (BMJ Global Health 2016) seeking to engage in global surgery work. We sought to highlight opportunities for action while at the same time underscoring some of the colonialist pitfalls that can derail efforts.

### What contribution are you most proud of (past or present)?

MT - I worked at the HEAL Africa hospital in Goma, Democratic Republic of Congo (DRC). I collaborated with its physicians and

other staff for two months, assessing the feasibility of using cell phones to bridge the postoperative accountability gap. Postoperative accountability is often a serious ethical dilemma in humanitarian settings: surgeons fly in, perform surgery, and leave. Records are poor and patients receive no follow-up. Our proof of concept research showed that the ubiquity of mobile phones, even in impoverished settings, provides a solution for remaining in touch with patients. I hope this research will lead to surgeons working with medical non-governmental organizations logging the phone number(s) of their patients, in order to enable follow-up amidst the turmoil of disasters and war. For this research, I was awarded the James H. Ware Award for Achievement in the Practice of Public Health.

AD - In 2014 I had the opportunity to sit down with the Ministry of Health in Sierra Leone, along with other stakeholders in surgical care in the country and redesign their universal health coverage package such that it also included coverage for key emergency surgical conditions, including acute abdominal presentations, fractures and cesarean sections. It was an opportunity to ensure no Sierra Leonean with a life threatening surgical condition ever walked away from a hospital untreated because they could not afford to pay. One of the most confronting things in our research was that 20% of patients in rural Sierra Leone who actually made it to hospital with an abdominal catastrophe - overcoming many barriers including distance and transport - subsequently left hospital without a life-saving operation because they could not afford to pay for the surgery. Many more never made it to hospital in the first place because of the cost. Although child and maternal health care is free in Sierra Leone, other life-saving health interventions are not, and families have to pay out of pocket for care - including for gloves, sutures, antibiotics and anesthetic gases. A laparotomy can cost ~\$US150-200, which is a lot when the average income is only ~\$US600 per year. Unfortunately the roll out of this policy was slowed down by the tragedy that was the Ebola outbreak. Encouragingly, the post-Ebola recovery period - and the international funding and support that has come with it - has allowed for reinvigorated commitment and funding of universal health coverage that includes emergency surgical care. Of all the opportunities I have had in global surgery, this is the one I am most proud of as it has the potential for immediate impact on the communities we work with, and elegantly demonstrates how we can use research, advocacy and policy to save lives, including in some of the poorest countries in the world.

SK - I have made connections with the staff and residents at Black Lion Hospital during my visit. They are getting world class results in a very resource constrained environment. I hope I can publish their results with them.

JN-K I led a team of researchers in gathering data for each country on essential surgical indicators. The Lancet Commission on Global Surgery developed a set of country-level surgical indicators designed to quantify the availability, amount, safety, and affordability of surgical care currently delivered. We submitted a [report to the World Bank](#),

which resulted in the inclusion of surgical data within a global health data repository for the first time. This will enable policymakers to examine the data and develop solutions that are relevant to their country. For example, a health minister might see that the number of surgeons, anesthesiologists, and obstetricians per 100,000 people is far below the minimum standard of 20, and decide to invest in training programs.

## What are you planning on working on next?

MT - I am publishing the postoperative accountability project mentioned above, and continuing work on professionalization of surgical interventions in humanitarian settings. I have ongoing projects surrounding surgical data collection methods and metrics in humanitarian settings, working in collaboration with the Harvard Humanitarian Initiative (HHI) and other international partners.

I also work with Dr. Georges Azzie (University of Toronto & Hospital for Sick Children, Toronto) and his research group on low-cost, high-fidelity laparoscopic models. Our work centres on developing a laparoscopic surgical education model that can be used in surgical settings throughout the world, and in the process assessing the very definition of laparoscopic surgical expertise.

Lastly, I plan to work with rural and Indigenous communities in Canada, and aim to develop research and work collaborations with these populations in the years to come. I believe that an integral part of global surgery is working with the remote and underserved communities at home as much as abroad.

AD - I am working with Prabhat Jha at the Centre for Global Health Research at St Michael's Hospital using a nationally representative study of 1.1 million households to map mortality from acute surgical conditions; from injuries; and from sepsis in India over the past decade. We then plan to relate deaths from these different conditions to access to emergency health care services, including surgical services. Our hope is by identifying high mortality geographic or socioeconomic clusters, as well as underserved areas and populations, we can help the Indian government make more informed decisions about where to focus health resources and policy, to raise the health of all Indians as the country goes through massive economic and epidemiologic transitions.

SK - I am publishing my results and getting on with an orthopaedic residency. I am hoping to have opportunities during residency to return to Ethiopia and tackle the clinical aspects of the trauma burden.

J N-K In the coming months, I will be finishing a systematic review on perioperative mortality in low-and-middle income countries. In the near future, I would like to turn the lens inward and conduct a study looking at regional differences in the availability and accessibility of surgical care within Canada. Specifically, I would like to see how geographic factors and demographic factors such as race influence one's ability to access surgical care when needed.

## How might you incorporate global surgery into your career plans?

MT - I hope to shape my future into a hybrid career, working part-time in humanitarian settings and spearheading professionalization of the surgical interventions therein; and part-time in Canada, either in rural settings or at an academic pediatric surgery centre.

AD My clinical and research interests remain focused on reducing disparities in access to health and surgical services for emergency conditions. These questions are just as relevant in Canada, especially for our indigenous communities and our rural population. My hope is to

build a career where I am able to address these issues both domestically and internationally through clinical care, research and policy, splitting my time between home and abroad. While I don't know this type of 'academic global surgery' job exists yet, I am hopeful it one day will! We live in a globalised, highly connected world and the ability to collaborate across borders on issues that affect all of us is easier – and more important – than ever. What is possible is a moving target, with limits defined only by what we are prepared to imagine and to work for.

SK - I believe that the best method to make a meaningful contribution will be to assist with the education of orthopedic residents in Ethiopia or elsewhere. I should be able to incorporate this type of work into my practice in the future.

JN-K I would like to have a Canadian-based clinical practice with the flexibility to work with colleagues in low-and middle-income countries. My academic focus will be on developing local clinical and research capacity. I also envision spending a significant portion of my early surgical career in humanitarian surgery, while continuing to advocate for underserved populations at home.

## Summary

The Lancet commission has called for surgery for all by 2030. A tremendous amount of innovation, discovery, teaching and learning is required to reach this audacious but important goal. U ofT is in an excellent position to contribute. Our residents are creating opportunities for themselves and others in global surgery. They are laying the foundations of a new era of collaborative, creative, and effective professional work. I hope that individuals like this will be recruited into the recently created global surgeon career pathway at U ofT.

## Global Health







## Division of Anatomy

Cindi M. Morshead, *Division Head*

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The past year has been an exciting and busy time in the Division of Anatomy. The Faculty of Medicine made Anatomy one of the fund raising priorities in order to renovate and rejuvenate our facilities and expand our capacity to provide the new curriculum for the MD program (previously the Undergraduate Medical Program). The renovations will create more flexible and state of the art facilities for teaching and training the hundreds of anatomy students that enroll in anatomy. Our Division faculty and staff have gone to extraordinary lengths to ensure that anatomy students continue to receive the excellent training and educational experience through the massive renovations. Enormous gratitude goes to the staff and faculty that are ensuring a smooth transition.

### Recruitment

After a rigorous search, we were thrilled to have Dr. Mubarak Bidmos, MD, PhD join the Division in July 2015 in the capacity of Assistant Professor, teaching stream. Dr. Bidmos received his MD from the University of Lagos and his PhD from the University of the Witwatersrand, where he studied osteometric standards for human identification and directed the MD Anatomy Program. He went on to postgraduate work in Transfusion Medicine from the University of Free State. His outstanding academic record and teaching capabilities proved to be exceptional this year and we look forward to his future commitment and innovation in our Anatomy Programs.

### Research Grants

Our research faculty successfully acquired over \$1,000,00 in new research funding from federal and provincial granting agencies in the past year including three NSERC funded grants (Agur, Morshead, Sun) and two Ontario Institute of Regenerative Medicine grants (Morshead).

Fels S (PI); Agur A, Singh K (co-Is) PHuman: Parametric multiscale modeling and simulation of human Anatomy. NSERC Collaborative Research and Development Grant – one year extension (2015–2016) \$200,000.

Sun HS (PI): Role of TPRM7 and TPRM2 Channels in Neuronal Development and Regeneration. NSERC Discovery Grant (2016–2021) \$140,000.

Morshead CM (PI): Regional specification of astrocyte domains: from development to behavior. NSERC Discovery Grant (2016–2021) \$180,000.

Fehlings M (PI); Morshead CM, van der Kooy D, Shoichet S, Nagy A (co-Is): iPSC-based and bioengineering approaches to enable spinal cord regeneration: A team grant for clinical translation. OIRM Disease Team Grant (2015–2017) \$1,200,000.

Miller M (PI): Morshead CM, Kaplan D, Mabbott D, Yeh A, Frankland P (co-Is): Pharmacological recruitment of endogenous neural precursors to promote pediatric white matter repair. OIRM Disease Team Grant (2015–2017) \$1,200,000.

### Resident/Fellows Honours/Awards/Positions Held

The Division continues to attract outstanding trainees and they have been the recipients of numerous accolades. Kelsey Adams and Nishanth Lakshman (Morshead, supervisor) were the recipients of the IMS entrance award (\$5,000). Ashkan Azimi (Morshead, supervisor) received the prestigious CIHR MSc studentship (\$17,500). Parvati Dadwal (Morshead, supervisor) successfully defended her MSc entitled “Metformin promotes tissue repair and functional recovery in a model of postnatal brain injury”. She went on to do an internship at the WHO. With a focus on innovation and entrepreneurship at the University of Toronto, the first Health Innovation Hub (H2i) competition was held. Ms. Stephanie Iwasa (PhD candidate, Morshead/Popovic, co-supervisors) received first for their innovative research and commercialization potential (\$5,000) of electric field application for neural regeneration. Samman Huang (Sun, supervisor) was awarded the Heart and Stroke Foundation Graduate Scholarship in Science and Technology (\$15,000). Ekaterina Turlova (Sun, supervisor) was awarded the Ontario Graduate Scholarship (\$15,000) and the Richard Lewar Centre for Excellence Scholarship (\$15,000).

### Faculty Honours/Awards/Positions Held

The *Division of Anatomy* received a Recognition Award from the Department of Physical Therapy to acknowledge teams who have provided great learning environments, guidance, supervision and are an inspiration to physical therapy students. Dr.'s Laprade, Agur and Koeberle are directly involved with the teaching in the PT program.

The Division continues to celebrate the outstanding teaching achievements of our faculty. Dr. Anne Agur received the Teaching Excellence Award from the Canadian Association of Physical Medicine and Rehabilitation. Given on behalf of the participants of the 9th Canadian Comprehensive Review Course for Residents in recognition of outstanding contribution in teaching. Dr. Dee Ballyk was the recipient of the W.T. Aikins Award for Excellence in Course Program Development and Coordination in Undergraduate Medical Education. This is the Faculty's most prestigious award for sustained commitment to, and excellent in, undergraduate teaching. Dr. Cindi Morshead was awarded the Excellence in Undergraduate Teaching in Life Science Award for sustained excellence in teaching in a Basic Science Department in the Faculty of Medicine.

The Division of Anatomy was externally reviewed in 2016. The glowing review recognized the exceptional research success and teaching excellence of the faculty. Dr. Cindi Morshead was re-appointed for her second term as Chair in the Division.

This past academic year has been both challenging and rewarding and has highlighted the spectacular team we have in the Division. With the continued support of the Faculty of Medicine and MD program, Anatomy faculty and staff have pulled together to work achieve the common goal of improved facilities to complement our teaching and research excellence.



## Division of Cardiac Surgery

**Christopher Caldarone**, *Chair*

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### Highlights

Garnering national media attention, **Mitesh Badiwala** and **Christopher Feindel** helped lead a multi-disciplinary medical team in a complicated ‘marathon’ surgery on a 33-year old healthy and active patient whose heart was extensively damaged by endocarditis and had to be rebuilt with an operation dubbed ‘UFO surgery’ – underscoring just how rare the more than 10 hour surgical procedure was.

**Gideon Cohen** was a part of the team at Sunnybrook Health Sciences Centre which performed the first transeptal mitral valve replacement in Canada.

**Fuad Moussa** launched the Sunnybrook Hybrid Coronary Revascularization Program.

**Glen Van Arsdell** conducted a 2 ½ day, hands-on congenital heart disease surgery course with 3D print models which provided participants the opportunity to perform five surgical procedures on their own 3D print models, including cases of tetralogy of Fallot, complete transposition of the great arteries with intact ventricular septum, two different forms of double outlet right ventricle and hypoplastic left heart syndrome.

### Recruitment

**Bobby Yanagawa** joined the Cardiac Surgery group as a Surgeon-Investigator at St Michael’s Hospital in July 2015.

### Promotions

**Osami Honjo** was promoted to Associate Professor of Surgery, Cardiac Surgery, Surgery, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

**Mark Peterson** was promoted to Associate Professor of Surgery, Cardiac Surgery, Surgery, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada

### Research Grants

**Christopher Caldarone**: Principal Investigator, “Pilot Trial: The Safety and Feasibility of Losartan Therapy for treatment of Pulmonary Vein Stenosis in Pediatric Patients.”, Labatt Family Heart Centre Innovation Fund, \$24,930.

**John Coles** is collaboratively leading a research consortium organized to discover and develop new treatments for childhood dilated cardiomyopathy (DCM), which is the most common form of heart muscle disease in children and, in advanced cases, can only be treated by heart transplantation. This research project was selected for funding and was among the 10 projects funded across Canada through BlueLine Biosciences. The project received \$210,000 in funding for Integrin-Linked Kinase (ILK) as a novel cardiac target.

As Co-Investigator **Stephen Femes** was awarded \$91,433 for “Screening and Management Risk factors in TAVI; an interdisciplinary Endeavor(SMARTIE)” by the Sunnybrook AFP Innovation Fund

**Osami Honjo**: Principal Investigator “Death after circulatory transplant project”, \$150,000 from James Cummings Foundation grant.

**Osami Honjo**: Principal Applicant, “Development of Computational Models to Aid in the Diagnosis and Treatment of Failing Fontan Circulation”, The University of Toronto, The Faculty of Applied Science and the Faculty of Medicine EMHSeed Program, Total Funding \$67,500.

**Osami Honjo**: Principal Applicant, Ted Rogers Centre for Heart Research: New Ideas Grant, “Development of a novel device for treatment of failing Fontan circulation”, Total Funding \$32,500.

**Osami Honjo**: Developing the Toronto Fontan Cannula as a Bridge for Failing Fontan Circulation, Grant, Principal Investigator: Total Funding , \$50,000 PMCC Innovation Award

**Osami Honjo**: Principal Investigator Labatt Family Heart Centre Innovations Fund: Efficacy of Extracorporeal Controlled Whole Body Reperfusion with or without a Neuroprotective Agent in a Rodent Cardiac Arrest Model, Total Funding \$25,000 (Canadian dollar)

**Fuad Moussa**: Principal Investigator and Co-Investigator for the “Black Box” study to improve OR efficiency and quality control.

**Subodh Verma**: Principal Investigator of the CIHR-supported grant entitled “In vivo and translational role of endothelial autophagy in the regulation of vascular disease” and Co-Principal Investigator of a HSFO awarded grant entitled “Randomized trial of mitral valve repair with leaflet resection versus leaflet preservation–Multicenter Study from the Canadian Mitral Researchers (CAMRA)”. As Principal Investigator, he also recently closed out two HSFO-funded projects that focussed on autophagy and the role of BRCA1 in endothelial function, angiogenesis and atherosclerosis.

**Subodh Verma**: Principal Investigator of the Boehringer Ingelheim supported trial “Effects of empagliflozin on cardiac structure, function, and circulating biomarkers in patients with type 2 diabetes” and Co-Investigator of the trial “Post-surgical enhanced monitoring for cardiac arrhythmias and atrial fibrillation (SEARCH-AF)” that has received funding from Bristol-Myers Squibb and Boehringer Ingelheim.

**Bobby Yanagawa**: Successful PSI funding for Amine Mazine with Bobby Yanagawa as PI. \$20,000 funding for one year. Project title: “The Role of Inflammazome in Human Rheumatic Heart Disease”

### Resident/Fellows Honours/Awards/Positions Held

**Mehroz Ehsan** and **Laura-Eve Mantella**, both mentored by Subodh



Verma, completed their MSc thesis on “Adiponectin, microparticles and endothelial function” and “Long Non-coding RNA Fingerprint Regulated by Cyclic Mechanical Stretch in Vascular Smooth Muscle Cells: Implications for Hypertension and Aortic Aneurysms” respectively. Both are now in medical school – Mehroz at the University of Oxford and Laura at Queen’s University.

At this year’s Gallie Day and Gordon Murray Dinner, **Christoph Haller**, Chief Fellow in the Division of Cardiac Surgery at The Hospital for Sick Children, was recognized as this year’s recipient of the **Zane Cohen Clinical Fellowship Achievement Award**.

The **Dr. Raymond Heimbecker Award in Surgery Research 2016** was awarded to **Hiro Kawajiri**, CT Fellow at Toronto General Hospital.

**Jonathan W Yau**, postdoctoral fellow mentored by Subodh Verma, won the 2015 American Heart Association Vivien Thomas Young Investigator Award for “A novel role of endothelial autophagy in the regulation of thrombosis in vivo.”

**McMurrich Awards (Non-SSTP Oral Presentations)** were awarded to **Rachel Vanderlaan** for her work entitled ‘Myofibroblast deposition and altered pulmonary vein reactivity contribute to disease progression in a surgical model of pulmonary vein stenosis’ and **Amine Mazine** for his work entitled ‘Long-term outcomes of the Ross Procedure versus mechanical aortic valve replacement: A propensity-matched cohort study’.

**Mohammed K. Al-Jughiman** was awarded 2nd place in the AATS Cardiothoracic Surgery Resident Poster competition for his work entitled ‘[What is the Procedure Impact on Ventricular Outflow Tract Hemodynamics and Reintervention in Patients with Complex Transposition?](#)’

**Rachel Vanderlaan** received the prestigious C Walton Lillehei Research Award from the American Association for Thoracic Surgery for her work entitled ‘Myofibroblast deposition and altered pulmonary vein reactivity contribute to disease progression in a surgical model of pulmonary vein stenosis.’

## Faculty Honours/Awards/Positions Held

**Daniel Bonneau** proctored at a number of Canadian and US centres in Perceval Valve implantation

**Christopher Caldarone** was endowed the Dr. Robert B. Salter Chair in Surgery for his ongoing responsibilities and commitment to world-leading research and academic activities. He continues as Surgeon-in-Chief and Chief of Perioperative Services at the Hospital for Sick Children.

**George Christakis** received the John Provan Surgical Educator Award for undergraduate medical education across Canada. This award recognizes outstanding contributions to undergraduate surgical education in Canada. He contains as Director of Undergraduate Surgical Education, University of Toronto.

**Gideon Cohen** was appointed Chairs of the DSMB Edwards Maverick Trial as well as the DMC Edwards Transcatheter Tricuspid Repair System Early Feasibility Study. He became Director of the University of Toronto’s Division of Cardiac Surgery Wetlab Program.

**John Coles** was also awarded the Ontario Centre of Excellence Award for 2015.

**R.J. Cusimano** was appointed as the Program Director for the Division of Cardiac Surgery, University of Toronto. He also won the 2016 Lynda L. Mickleborough Award for Excellence in Cardiac Surgery Teaching at TGH.

**Tirone David** was awarded the Lifetime Achievement Award from the American Association for Thoracic Surgery.

**Lee Errett** was appointed the first Professor of Global Surgery at the University of Toronto.

**Stephen Fremes** received the 2016 Bernard Goldman Award for Excellence in Cardiac Surgery Teaching at Sunnybrook as well as the Charles H. Tator Surgeon Scientist Mentoring Award, University of Toronto. He was reappointed Bernard S Goldman Chair in Cardiac Surgery.

**Edward Hickey** shares his expertise around the world as an invited speaker at many venues. This year he drew parallels between the National Aeronautics and Space Administration “threat and error” model and pediatric cardiac surgery.

**Osami Honjo** received the 2016 William G. Williams Award for Excellence in Cardiac Surgery Teaching at the Hospital for Sick Children.

**David Latter** was the recipient of the 2016 James Yao Award Award for Excellence in Cardiac Surgery Teaching at St. Michael’s Hospital.

**Ren-Ke Li** received a 3 year grant from the Ontario Research Fund – Research Excellence Program, for his submission “Pre-clinical Development of a Novel Umbilical Cord Perivascular Cell-based Therapy to Prevent Heart Failure”. Ren-Ke was also elected as Fellow of the International Academy of Cardiovascular Sciences.

**Mark Peterson:** was accepted as a new member of the American Association of Thoracic Surgery. He was also appointed to the Executive Committee of the Canadian Thoracic Aortic Collaborative as well as the Critically Illness Steering Committee at St. Michael’s Hospital.

**Subodh Verma** has been selected as a member of the 2015 cohort of the College of New Scholars, Artists and Scientists of the Royal Society of Canada. Subodh is an internationally renowned cardiac surgeon-scientist and the Canada research Chair in Atherosclerosis.

**Subodh Verma** served on the panel of the 2016 Canadian Cardiovascular Society Guidelines for the management of dyslipidemia for the prevention of cardiovascular disease in the adult and sits on the panels for the upcoming updates of the Canadian Cardiovascular Society Guidelines for Atrial Fibrillation and Canadian Diabetes Association Clinical Practice Guidelines.

## Leadership Changes/Progressions

**David Latter** was named as Director of MD Admissions and Student Finances for the Faculty of Medicine. **David Latter** stepped down as Chair of the Fellowship Educational Advisory Committee, which he served for 8 years.

## Other highlights

January 2016 the members of the Division of Cardiac Surgery co-hosted and presented at the 4<sup>th</sup> annual *Valve Symposium 2016* at the Li Ka Shing Institute.

**Bobby Yanagawa** started the St Michael’s Hospital Cardiovascular

Surgical Tissue bank including but not limited to blood, valve, bypass conduit, myocardium and aortic tissue collection for translational studies.

**Mark Peterson** is a founding member of the Toronto Aortic Collaborative and the Canadian Thoracic Aortic Collaborative and sits on the Executive of both groups.

**Mark Peterson and Subodh Verma** are currently conducting a multicenter randomized clinical trial in aortic surgery called the ACE Study. 115 patients are currently being recruited and randomized to either axillary artery or innominate artery cannulation for cerebral protection during aortic arch surgery.

### Visiting Professors:

**Niv Ad**, Chief of Cardiac Surgery and Director of Cardiac Surgery Research at Inova Heart and Vascular Institute delivered the 2016 Dr. Raymond Heimbecker Visiting Lecture in Cardiac Surgery.

**William E. Cohn**, MD, Director of the Center for Technology and Innovation CHI St. Luke's Health – Baylor St. Luke's Medical Center spoke on "Fostering a Culture of Physician Innovation in Cardiovascular Devices" at The Sprott Department of Surgery Surgical Grand Rounds January 15, 2016.

**John W Eikelboom**, MB BS, MSc of McMaster University spoke on the topic "NOAC antidotes come of age" at the St Michael's Hospital Joint Cardiac Surgery and Cardiology Rounds on January 25, 2016.

**John A. Elefteriades, MD** William W.L. Glenn Professor of Cardiothoracic Surgery and Director of the Aortic Institute at Yale-New Haven delivered the Wilfred Bigelow Lecture entitled "Thoracic Aortic Aneurysms: Reading the Enemy's Playbook" on October 2<sup>nd</sup>, 2015.

**Ross D Feldman**, MD of the Memorial University of Newfoundland spoke on the topic "Heart Disease in Women: You've come a long way...?" at the St Michael's Hospital Joint Cardiac Surgery, Vascular Surgery and Cardiology Rounds on September 28, 2015.

**Ishwarlal Jialal**, MD, PhD of UC Davis Medical Center spoke on the topic "The Role of Inflammation in Metabolic Syndrome" at the St Michael's Hospital Joint Cardiac Surgery and Cardiology Rounds on May 16, 2016.

**Daniel Paquette**, MD of the Fédération des médecins omnipraticiens du Québec (FMOQ) spoke on the topic "Aiming for a higher standard in CME: Lessons from FMOQ" at the St Michael's Hospital Cardiac Surgery Rounds on November 3, 2015.

**Douglas P Zipes**, MD of the Indiana University School of Medicine delivered the 9<sup>th</sup> Annual Landmark Lecture "The birth and maturation of cardiac electrophysiology as a specialty" on October 5, 2015 at the Li Ka Shing Knowledge Institute of St. Michael's Hospital.

### Finance Seminar







## Division of General Surgery

**Carol Swallow, Chair**

The University of Toronto Division of General Surgery has a long-standing tradition of scholarly excellence and community service, in addition to expertise in clinical care. In the 2015–2016 academic year, our attending surgeons and trainees made significant contributions to the academic mission of the Department of Surgery, and had impact on the practice of surgery locally and globally.

### Scholarly Activity and Achievement

**Education.** In October 2015, our GS Residency Program underwent a mandated external review by the Royal College of Physicians and Surgeons. Thanks to an extraordinarily committed and coordinated effort by our education leaders, our faculty and trainees, we were awarded a status of Full Accreditation. The reviewers specifically noted the following characteristics of our program:

### Strengths of the University of Toronto GS Training Program (Royal College Surveyors, December 2015)

1. dedicated, respected Program Director (Dr. Najma Ahmed) who has developed an effective and collegial learning environment for residents and staff
2. departmental and divisional chairs who are strongly supportive of the residency program
3. goals and objectives that are functional, comprehensive and easily applied
4. collegial and dedicated teaching faculty with wide varieties of expertise
5. abundant clinical and research opportunities for trainees

### Faculty Recipients of Major Department of Surgery Teaching Awards

**Sandra de Montbrun**, St. Michael's Hospital – Surgical Skills Lab Teaching Award

Dr. de Montbrun has developed and implemented an Objective Structured Assessment of Technical Skills (OSATS) exam that has been adopted to examine colorectal trainees applying for American Board of Surgeons certification. The OSATS exam will in future be widely rolled out in numerous specialties, and will facilitate evaluation of competence by design.

**Georges Azzie**, Hospital for Sick Children – Tovee Award for Postgraduate Teaching

Dr. Azzie is internationally recognized for his work on telementoring to develop laparoscopic skills. His research laboratory has included operating theatres and colleagues in Botswana, where he spends up to 4 months per year. Dr. Azzie is a thought leader in international surgery, especially with regard to education and ethics.

**Teodor Grantcharov**, St. Michael's Hospital – Charles Tator Mentorship Award

Dr. Grantcharov holds a CIHR Chair in Technology & Innovation, and focuses his scholarly activity on optimization and evaluation of technical skill. He has provided superb mentorship to a generation of Surgical Scientist Trainees, as well as fellows and junior colleagues.

**Najma Ahmed**, St. Michael's Hospital – D.R. Wilson PGME Award, Royal College of Physicians and Surgeons of Canada

Dr. Ahmed was recognized for excellence and impact in the sphere of postgraduate education, in particular with respect to her seminal work on work hours restrictions and their impact on competence.

**Research and Innovation.** The Division of General Surgery continues to enroll more residents in the Surgical Scientist Training Program than any other division in the Department of Surgery, reflecting not only our numbers, but also the dedication, commitment and passion of our attending surgeons who provide supervision to these trainees. Our SSTP trainees routinely win awards at national and international meetings, but some of the most coveted prizes are for research presented at our own University of Toronto Department of Surgery annual Gallie Day.

### Resident Recipients of Department of Surgery Gallie Bateman Awards

**1<sup>st</sup> Prize, Oral Presentation: Marisa Louridas** – Practice does not always make perfect: Need for selection curricula in modern surgical training. Sup: T. Grantcharov

**2<sup>nd</sup> Prize, Oral Presentation: James Byrne** – Timing of VTE prophylaxis in severe traumatic brain injury: A propensity-matched cohort study. Sup: A. Nathens

**1<sup>st</sup> Prize, Poster Presentation: Peter Szasz** – Setting performance standards for technical and non-technical competence in General Surgery. Sup: T. Grantcharov

**2<sup>nd</sup> Prize, Poster Presentation: James Jung** – Approach to asymptomatic paraesophageal hernia: Elective laparoscopic hernia repair or watchful waiting? Sup: T. Grantcharov

**3<sup>rd</sup> Prize, Poster Presentation: Stephanie Mason** – Persistent morbidity requiring urgent readmission after major burn injury: A population-based analysis. Sup: M. Jeschke, A. Nathens

Our faculty members continue to garner awards, peer-reviewed grants and invited professorships all over the world. This year, a young General Surgery faculty member won the Bernard Langer Surgeon Scientist Award, in recognition of his impactful work as an SSTP trainee, and since joining the faculty here at the University of Toronto. **Anand Govindarajan** is a surgical oncologist at Mount Sinai Hospital, who conducts outcomes research in collaboration with his scientific mentor, Nancy Baxter.

The list of peer-reviewed publications by our more than 100 faculty members is too long to present in its entirety.

## Selected Peer-Reviewed Publications by General Surgery Faculty HSC

**Mutabdzic D, Azzie G.**

[Uncovering the Hidden Curriculum of Global Health Electives.](#)  
Ann Surg. 2016 May;263(5):853-4.

King SK, Alfaraj M, Gaiteiro R, O'Brien K, Moraes T, Humpl T, Marcon M, Chiang M, Reyes J, Haliburton B, Ryan G, Cox P, Chiu PP.

[Congenital diaphragmatic hernia: Observed/expected lung-to-head ratio as a predictor of long-term morbidity.](#)  
J Pediatr Surg. 2016 May;51(5):699-702.

Feinberg A, Hall NJ, Williams GM, Schultz KA, Miniati D, Hill DA, Dehner LP, Messinger YH, Langer JC.  
[Can congenital pulmonary airway malformation be distinguished from Type I pleuropulmonary blastoma based on clinical and radiological features?](#)  
J Pediatr Surg. 2016 Jan;51(1):33-7.

Li B, Zani A, Lee C, Zani-Ruttenstock E, Zhang Z, Li X, Ip W, Gonska T, Pierro A.  
[Endoplasmic reticulum stress is involved in the colonic epithelium damage induced by maternal separation.](#)  
J Pediatr Surg. 2016 Jun;51(6):1001-4.

Oliveira C, de Silva NT, Stanojevic S, Avitzur Y, Bayoumi AM, Ungar WJ, Hoch JS, Wales PW.  
[Change of Outcomes in Pediatric Intestinal Failure: Use of Time-Series Analysis to Assess the Evolution of an Intestinal Rehabilitation Program.](#)  
J Am Coll Surg. 2016 Jun;222(6):1180-1188.

Zani A, Cobellis G, Wolinska J, Chiu PP, Pierro A.  
[Preservation of native esophagus in infants with pure esophageal atresia has good long-term outcomes despite significant postoperative morbidity.](#)  
Pediatr Surg Int. 2016 Feb;32(2):113-7.

## MSH

Zerhouni S, Kirsch R, Bakonyi A, O'Connor B, Huang H, Cohen Z.  
[Severity of inflammation as a risk factor for ileo-anal anastomotic leak after a pouch procedure in ulcerative colitis.](#)  
Int J Colorectal Dis. 2015 Oct;30(10):1375-80.

Scaranelo AM, Moshonov H, Escallon J.  
[A prospective pilot study of analysis of surgical margins of breast cancers using high-resolution sonography.](#)  
Springerplus. 2016 Mar 1;5:251.

Babichev Y, Kabaroff L, Datti A, Uehling D, Isaac M, Al-Awar R, Prakesch M, Sun RX, Boutros PC, Venier R, Dickson BC, Gladly RA.  
[PI3K/AKT/mTOR inhibition in combination with doxorubicin is an effective therapy for leiomyosarcoma.](#)  
J Transl Med. 2016 Mar 8;14:67.

Govindarajan A, Urbach DR, Baxter NN.  
[Outcomes of Procedures Performed by Attending Surgeons after Night Work.](#)  
N Engl J Med. 2015 Dec 10;373(24):2384.

Aronson M, Holter S, Semotiuk K, Winter L, Pollett A, Gallinger S, Cohen Z, Gryfe R.  
[DNA Mismatch Repair Status Predicts Need for Future Colorectal Surgery for Metachronous Neoplasms in Young Individuals Undergoing Colorectal Cancer Resection.](#)  
Dis Colon Rectum. 2015 Jul;58(7):645-52.

Snelgrove RC, Subendran J, Jhaveri K, Thipphavong S, Cummings B, Brierley J, Kirsch R, Kennedy ED.  
[Effect of Multidisciplinary Cancer Conference on Treatment Plan for Patients With Primary Rectal Cancer.](#)  
Dis Colon Rectum. 2015 Jul;58(7):653-8.

Ottolino-Perry K, Acuna SA, Angarita FA, Sellers C, Zerhouni S, Tang N, McCart JA.  
[Oncolytic vaccinia virus synergizes with irinotecan in colorectal cancer.](#)  
Mol Oncol. 2015 Oct;9(8):1539-52.

Rosario CO, Kazazian K, Zih FS, Brashavitskaya O, Haffani Y, Xu RS, George A, Dennis JW, Swallow CJ.  
[A novel role for Plk4 in regulating cell spreading and motility.](#)  
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## NYGH

Wakeam E, Feinberg S.  
Surgeon unemployment: Would practice sharing be a viable solution?  
Can J Surg. 2016 Apr; 59(2): 141-142.

Maxwell J, Roberts A, Cil T, Somogyi R, Osman F.  
Current Practices and Barriers to the Integration of Oncoplastic Breast Surgery: A Canadian Perspective.  
Ann Surg Oncol. 2016 Oct;23(10):3259-65.

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Kagedan DJ, Raju RS, Dixon ME, Shin E, Li Q, Liu N, Elmi M, El-Sedfy A, Paszat L, Kiss A, Earle CC, Mittmann N, Coburn NG.  
[The association of adjuvant therapy with survival at the population level following pancreatic adenocarcinoma resection.](#)  
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Cancer. 2015 Jul 1;121(13):2214-21.

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Am J Surg. 2015 Nov;210(5):896-903.

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Hepatobiliary Surg Nutr. 2016 Jun;5(3):217-24.

Cordeiro E, Gervais MK, Shah PS, Look Hong NJ, Wright FC.  
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Ann Surg Oncol. 2016 Dec;23(13):4178-4188



Cordeiro E, Dixon M, Coburn N, Holloway CM.  
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Ann Surg Oncol. 2015 Aug;22(8):2509-16.

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Surgery. 2016 Nov;160(5):1392-1399.

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JAMA Surg. 2015 Sep;150(9):874-81.

Savage EC, Tenn C, Vartanian O, Blackler K, Sullivan-Kwantes W, Garrett M, Blais AR, Jarmasz J, Peng H, Pannell D, Tien HC.  
[A comparison of live tissue training and high-fidelity patient simulator: A pilot study in battlefield trauma training.](#)  
J Trauma Acute Care Surg. 2015 Oct;79(4 Suppl 2):S157-63.

## SJH

Strickland M, Hallet J, Abramowitz D, Liang S, Law CH, Jayaraman S.  
[Lateral approach in laparoscopic distal pancreatectomy is safe and potentially beneficial compared to the traditional medial approach.](#)  
Surg Endosc. 2015 Sep;29(9):2825-31.

## SMH

Acuna SA, Fernandes KA, Daly C, Hicks LK, Sutradhar R, Kim SJ, Baxter NN.  
[Cancer Mortality Among Recipients of Solid-Organ Transplantation in Ontario, Canada.](#)  
JAMA Oncol. 2016 Apr;2(4):463-9.

de Montbrun S, Satterthwaite L, Grantcharov TP.  
[Setting pass scores for assessment of technical performance by surgical trainees.](#)  
Br J Surg. 2016 Feb;103(3):300-6.

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J Trauma Acute Care Surg. 2015 Oct;79(4):694-7.

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Reflections: Rethinking the Meaning of Competence.  
J Cancer Educ. 2016 May 19.

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Ann Surg Oncol. 2016 Aug;23(8):2462-70.

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## TEGH/Michael GARRON

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Surg Obes Relat Dis. 2016 Feb;12(2):350-6.

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Lemire M, Zaidi SH, Zanke BW, Gallinger S, Hudson TJ, Cleary SP.  
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J Clin Oncol. 2015 Oct 1;33(28):3124-9.

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[Taking a Chance or Playing It Safe: Reframing Risk Assessment Within the Surgeon's Comfort Zone.](#)  
Ann Surg. 2015 Aug;262(2):253-9.

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Ann Surg Oncol. 2016 Aug;23(8):2644-51.

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Cell Rep. 2015 Dec 29;13(12):2851-64.

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Nat Biotechnol. 2015 Aug;33(8):853-61.

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## WCH

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[The Importance of Applying ACOSOG Z0011 Criteria in the Axillary Management of Invasive Lobular Carcinoma: A Multi-institutional Cohort Study.](#)  
Ann Surg Oncol. 2015 Oct;22(10):3397-401.

## Faculty Development

### [New Faculty Members](#)

Savtaj Brar, Surgical Oncology, Mount Sinai Hospital  
Usmaan Hameed, Surgical Oncology, North York General Hospital  
Gonzalo Sapisochin, HPB Surgical Oncology & Transplant, UHN-TGH  
Augusto Zani, HSC, Paediatric General Surgery

### [Promotions](#)

Paul Karanicolas, Sunnybrook, to the rank of Associate Professor

### [Successful Continuing Appointment Reviews](#)

Faculty Member	Hospital	Mentor(s)
Shady Ashamalla	SB	Avery Nathens, Paul Karanicolas, Andy Smith
Karen Devon	WCH	Lorne Rotstein, Martin McKneally
Anand Govindarajan	MSH	Andrea McCart, Nancy Baxter
Paul Karanicolas*	SB	Avery Nathens, Gordon Guyatt
Barto Nascimento	SB	Homer Tien, Avery Nathens
Jaoa Rezendes-Neto	SMH	Sandro Rizzoli, Wolfgang Kuebler
Fayez Quereshey	UHN	Allan O’Krainec

### [New Adjunct Clinical Professor Appointments](#)

Faculty Member	Practice Location
Robert Bendavid	Shouldice Clinic, Toronto
Alexander Iskander	Humber River
Laura Musselman	Trillium Health Partners, Mississauga
Bharat Sharma	Royal Victoria, Barrie
Rupert Abdalian	North York General
Shima Kassirian	Southlake
Claude Burul	Shouldice Clinic, Toronto

## Community Service

In addition to serving our local, regional and national communities by educating strong clinical surgeons who provide excellent acute and subspecialty general surgical care across Canada, our faculty members and trainees impact our community in a wide variety of ways. Aided by residents David Berger Richardson and Hala Muadi, Zane Cohen led our division’s commitment to host a Syrian refugee family, an effort to which all faculty and trainee members have contributed in some manner. Residents Josh Ng-Klimstra, Maeve Trudeau and Anna Dare led our Education Symposium on Ethical Dilemmas in Global Surgery at the Annual Assembly in May 2016, hosting the Tovee lecturer John Tarpley of Vanderbilt University. Many of our GS faculty conduct research that directly informs health care policy. Particularly noteworthy contributions were made by Avery Nathens in the realm of trauma responsiveness, Erin Kennedy in optimization of the management of primary rectal cancer, Carol Ann Moulton in promoting implementation of coaching into continuing education for general surgeons, Shady Ashamalla in training for safe implementation of transanal TME for rectal cancer, and the entire UHN transplantation team (Paul Greig, David Grant, Mark Cattral, Ian McGilvray, Marcus Selzner, Anand Ghanekar, Gonzalo Sapisochin) for their seminal and ground-breaking work on live donor liver transplantation.





## Division of Neurosurgery

**Andres Lozano, Chair**

The 2015–16 year marked another year of excellence in academic, research, clinical and teaching domains in our Division. Our 62 Faculty and residents performed over 6,000 cases and published 350 papers. Our Division continues to receive some of the most prestigious awards in our discipline, and our residents received scholarships and awards celebrating their achievements. The Dan Family's generosity is instrumental to our success and we are grateful for their support.

**Promotions.** Taufik Valiante was promoted to Scientist at the Krembil Research Institute effective July 1, 2015.

**New Chairs.** Michael Tymianski was appointed the Harold and Esther Halpern Chair in Neurosurgical Stroke Research and Fred Gentili was appointed as the Crean Hotson Chair in Skull Base Surgery, representing the 16<sup>th</sup> and 17<sup>th</sup> endowed Chairs in our Division respectively.

**Research Grants.** Our neurosurgeons and Division-affiliated neuroscientists held over \$38.5M in total grant funding, including 19 newly awarded research grants.

### Resident/Fellows Honours/Awards/Positions Held

- Chris Ahuja (PGY4), Newtown Cho (PGY3) and Allan Martin (PGY4) received CIHR Fellowship Awards.
- Nir Lipsman (PGY6) received the 2016 Shafie S. Fazel Outstanding Resident Surgeon and Investigator Award
- Allan Martin (PGY4) received a 2015 Postgraduate Research Award.
- Jamie Purzner (PGY4) received a \$50,000 NREF and B\*CURED Research Grant

### Faculty Honours/Awards/Positions Held

- **James Rutka** was elected as an Officer of the Order of Canada.
- Charles Tator and Albert Aguayo (Neurology, McGill University) were co-awarded the Wings for Life 2016 Lifetime Achievement Award for Spinal Cord Injury.
- **Michael Taylor** was awarded the Department of Surgery's Lister Prize
- **James Rutka** was awarded the 2015 Margolese National Brain Disorders Prize.
- **Andres Lozano** was the only neurosurgeon in the world to be named to the Thompson Reuters select list of highly cited researchers for 2015 in the category of Neuroscience and Behavior (<http://highlycited.com/>).
- **Michael Fehlings** was ranked #5 in the world for the period of 2010–2012 for number of papers published in all areas of neuroscience by Elsevier and Thompson Reuters in their assessment of Faculty of Medicine researchers.
- **Andres Lozano** was elected to the European Academy of Sciences.

### Visiting Professors

- **Shekar Kurpad**, Medical College of Wisconsin, 2015 Annual E. Harry Botterell Visiting Lectureship Nov 11, 2015
- **Jan Schwab**, Ohio State University, 14th Annual Tator–Turnbull Symposium, Nov 13, 2015
- **Henry Marsh**, St. George's Hospital, London, UK, 1<sup>st</sup> Labatt Chair Visiting Professor in International Neurosurgical Education, St. Michael's Hospital, Feb 19, 2016.
- **Patrick J. Gullane**, University of Toronto, 2nd Annual Alan & Susan Hudson Lectureship, Apr 15, 2016.
- **Rokuya Tanikawa**, Asahikawa Medical Center 52nd Loughheed Microsurgical Course & 2016 City-Wide Rounds, Toronto Western Hospital, Apr 25–29, 2016
- **Geoffrey T. Manley**, UCSF, 2016 Tile Lecture, Sunnybrook Hospital, Jun 3, 2016.
- **Jörg-Christian Tonn**, University of Munich, 41st William S. Keith Visiting Professor, June 6, 2016.
- **David Fortin**, University of Sherbrooke, Visiting Professorship at St. Michael's Hospital, June 7, 2016.
- **Daniel Riew**, Columbia Medical Center, SpineFEST 2016, June 13, 2016.

### Division Firsts

- On October 3, 2015 our Division held a Chairman's welcome event for residents. This year's activities included a visit to the shooting range and a motorcycle/ATV tour.
- We launched a new monthly e-series "Alumni Focus—Where Are They Now" in December 2015.
- On February 12–14, 2016, Division of Neurosurgery Faculty convened for a strategic planning retreat at The Crane resort in Barbados.

### Leadership Changes/Progressions.

- James Rutka was re-appointed as the R.S. McLaughlin Professor and Chair of the Department of Surgery for a second five-year term.
- Andres Lozano was re-appointed as the Dan Family Chair in Neurosurgery for a second five-year term.
- Todd Mainprize was appointed the Head of the Division of Neurosurgery at Sunnybrook Hospital.

**Royal College Fellowships.** The following PGY6 residents successfully passed their FRCS(C) fellowship examinations: David Cadotte, Brian Drake, George Ibrahim, Anthony Lau and Nir Lipsman.

*We have had a great year of achievements. Our 5 new residents and 25 clinical fellows from around the world bring tremendous talent to our Division. Thank you to all of our Faculty, fellows and residents for their remarkable contributions to our Division, ensuring that the Toronto Neurosurgery program remains a distinguished and world-leading program.*



## Division of Orthopaedic Surgery

**Peter Ferguson**, *Albert and Temmy Latner Chair*

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The highlight of the 2015/2016 academic year was the development of the Division of Orthopaedic Surgery's 2016-2021 Strategic Plan entitled "Global Leadership Through Innovation and Collaboration". This is a bold and ambitious document that has set key directional priorities for us for the next 5 years and beyond. In this plan we highlight our initiatives under 5 key themes: Education, Research, Quality and Best Practices, Faculty Development and Leadership, and finally, Integration, Advocacy and Outreach.

Under the leadership of Markku Nousiainen, the Education group highlighted priorities such as improving our presence and profile in undergraduate education, further refinement of our highly successful and world-renowned Competency Based Curriculum, increasing the role of fellows in teaching, and improving mentorship and the learning experience for students at all levels of training.

The Research group, led by Albert Yee, highlighted as important initiatives improving support of our surgeon-scientists and early career investigators, early identification of promising academic surgeons in our training program, promotion of research productivity of faculty at all career levels, fostering partnerships and collaborations across the University and beyond, and strategic recruitment of scientific personnel within the Division to support key research themes.

Hans Kreder led the Quality and Best Practice group which identified as priorities the standardization of continuous quality improvement processes and activities, improvement of internal and external communication across clinical sites, development of standardized clinical care processes and pathways with University of Toronto Orthopaedic branding, and promotion of quality as an academic career pathway.

Goals of the Faculty Development and Leadership group, under the guidance of Terry Axelrod, include the establishment of a University Division wide faculty transition plan, establishment of a 100% compliance rate with the Departmental open search process for new faculty, implementation of a mentorship and coaching program for early and mid-career faculty, improved information and support of faculty promotion, enhancement of leadership and teaching skills within the Division and the development of educational meetings for the academic community and trainees.

David Backstein led the Integration, Advocacy and Outreach group, which highlighted as priorities the advocacy for funding for our specialty based on solid costing evidence, ensuring our prominent role in the Toronto Central LHIN is maintained, expansion of CME offerings and enhanced engagement with alumni, primary care and allied health personnel, and finally promotion of our brand in the development of orthopaedic interventions in third world countries. As a key component of this plan, we have rebranded our Division with our new logo and motto "Leadership. Innovation. Impact." This succinctly summarizes our strengths and ambitions that will allow us to bring our strategic plan to fruition.

Our University Wide Rounds for the academic year were given by Rajiv Gandhi and Michael MacKechnie (Toronto), James Nunley (Durham NC), Arnd Steinbrück and Bernhard Speigner (German Foot & Ankle Traveling Fellows), Gregory Della Rocca (Missouri) and John Wedge (Toronto). We had the fifth Stefanski lecture for teaching better communication to orthopaedists. Marc Swionkowski was our lecturer. He is well known in the Orthopaedic community and has been a mentor of many of our faculty. He has also held several leadership positions in the AOA, AAOS and the OTA, to name a few. He is currently the CEO of TRIA Orthopaedic Center in Bloomington, MN, and Professor at the University of Minnesota. The title of his talk was: "The use of patient reported outcomes information to improve shared decision making". At our annual research day held in November, Nadr Jomha provided an inspirational lecture on his academic journey from the clinic to bench and back again. His perspective on the cryopreservation of articular cartilage, tissue engineering/regeneration, and bone replacement approaches to important clinical orthopaedic issues resonated with residents and faculty alike. The Robin Sullivan Award for best resident research project went to Jasjit Lochab and the best paper by a non-resident award went to Tarik Attia. This year, we also inaugurated our annual Division of Orthopaedics Junior Faculty Research Award. We received several excellent nominations by faculty members – congratulations again to Dr. Jas Chahal as the inaugural recipient of this award. The future of academic orthopaedic surgery at the University of Toronto is dependent on the excellent research being conducting by many of our promising junior faculty members in the program.

Our Graduation Day Visiting Professor was Tom Minas. He gave a fabulous and very insightful "Autologous Chondrocyte Implantation in the Knee: A Translational Model -from basic science to long term clinical follow up." talk as his Salter lecture. Half of our graduates presented research papers while the other half participated in debates. The award for best academic resident, as voted by the faculty, went to Jesse Wolfstadt, and the Meisami award for most compassionate resident, as selected by the faculty, went to Christopher Kim. Lawson Awards went to: Evan Watts (PGY 4) Zachary Tan and Michael Olsen (PGY 3) Justin Chang (PGY 2) and Zachary Lim (PGY 1). The R.I. Harris awards for the best research presentations at the Graduation Day went to Adam Katchky and Michael Zywiell. The James Waddell award for the best PGY 4 resident was awarded to Andrea Chan. Martin Gargan received the Divisional Award for Best Teacher as selected by the residents.

We welcomed 2 new faculty members this academic year – Sarah Ward (St. Michael's) and Sebastian Tomescu (Sunnybrook and Holland Centre). We are looking forward to great contributions from Sarah and Sebastian over the next several years.

We had 2 faculty members who were promoted as of July 1, 2016. Daniel Whelan was promoted to the level of Associate Professor and Darrell Ogilvie-Harris to the level of Full Professor. This is the ultimate academic achievement at the University and is a measure of



the outstanding contributions that they have made to orthopaedics. Congratulations to both of them.

There were several awards bestowed upon our faculty members and residents. Tim Daniels won the Roger Mann Award at the AOFAS for a record 4<sup>th</sup> time! Danny Whelan was awarded the prestigious 2016 ESSKA-AOSSM DJO Travelling Fellowship. David Wasserstein and Ujash Sheth were awarded the Sports Health Sisk Award. Ujash was also awarded the Alexandra Kirkley Award at the Canadian Orthopaedic Residents Association Meeting and the Herodicus Award for the best residents' presentation at the AOSSM meeting. Kim Tsoi was selected as the Best Research Presentation at Gallie Day. Dennis Dipasquale won the Bruce Tovee Undergraduate Teaching Award for the Department of Surgery. Richard Holtby was selected as recipient of the Marvin Tile Award at Sunnybrook. Cari Whyne was awarded a CIHR POP Phase I grant. Lucas Murnaghan and Tim Dwyer received Education Development Fund Grants. Kim Tsoi and Tim Dwyer both successfully completed their PhD theses. The Canadian Orthopaedic Society awarded the 1<sup>st</sup> place 2016 Founders Medal to Sam Park and the 2<sup>nd</sup> place Founders Medal to Corey Sermer. These are the 2 highest awards in Orthopaedic research in our country!

At our recent 7<sup>th</sup> Annual Fellowship Day, the best fellow teachers within the division, selected by the residents, were Kevin Koo, Matt Tsuji and Jim Turner. The best research presentations of the day were awarded to So Kato, Kenny Gundle and Prakash Nayak. The arthroplasty group at St. Michael's Hospital, including Dr. Jim Waddell, Dr. Earl Bogoch, Dr. Emil Schemitsch and Dr. Sarah Ward was selected as the best educational fellowship program. We anticipate that all of our fellows take their great experiences in Toronto with them in their upcoming career endeavors.

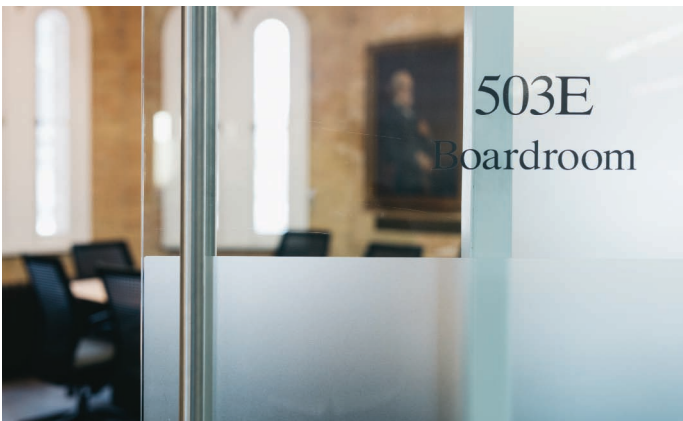
All of our trainees were successful on their recent FRCSC exams. Congratulations to Tom Zochowski, Adam Katchky, Michael MacKechnie, Mark Miller, Christopher Kim, Alireza Naderipour, Jesse Wolfstadt and Michael Zywiell. Best of luck to them as they embark on the next stage in their careers and profound thanks for all their hard work over the past several years.

We welcomed a fresh group of trainees to our program July 1<sup>st</sup>. These highly accomplished individuals are the future of our specialty. A warm welcome to Aouod Agenor, Amit Anand, Hasaan Chaudhry, Jonathan Doyon, Matt Florczynski, Scott Kim, Jason Lam, Jhase Sniderman and James Wu. We all look forward to working with you over the next several years.

Finally, we had several significant departures from our Division this year. Dr. Jim Wright left the Hospital for Sick Children for Oxford, UK. Dr. Emil Schemitsch departed St. Michael's Hospital to take up the position as Chair of Surgery at Western University in London. Dr. John Cameron, Dr. Richard Holtby and our former Chair of Surgery Dr. John Wedge retired from clinical practice. As a Division, we offer our enormous thanks to all of your leadership and guidance over the past several years.

I'm sure there are myriad other awards and accolades that I could mention, these are but a few. I apologize if I've forgotten anything. Thanks to everyone for your tremendous support of our division and program over the past year. I'm incredibly excited about our collective future!

### Dr. Knosp & Dr. Rutka Feb. 2016



### Dr. W. Spence with Dr. Rutka





## Division of Plastic & Reconstructive Surgery

**Christopher R. Forrest, MD, MSc, FRCSC, FACS, Chair**

The division has expanded tremendously and has grown into a consolidated group of 51 surgeons, 3 senior scientists, 27 residents and 22 fellows working at 12 units in 10 teaching hospitals in the greater Toronto area all under the University of Toronto academic mission. Our division has expertise in the entire breadth and depth of Plastic and Reconstructive Surgery in the arenas of pediatric surgery, cleft, craniofacial, burns, microsurgery, hand, facial reanimation, upper extremity, breast, aesthetic and oncologic surgery, providing state of the art patient care. Our program and its members are recognized across the globe and we attract a large number of medical observers who travel to visit and see firsthand the innovative techniques developed here. We train the largest number of residents and fellows in the country including tomorrow's generation of surgeon-scientists.

### Departures:

**Nancy McKee:** The career of Dr. Nancy McKee was celebrated and acknowledged by awarding her the Chair's Lifetime Achievement Award. In June 2016, Nancy retired after a 37-year career at Mount Sinai Hospital. Nancy graduated from the University of Toronto Medical School in 1970 and after doing an internship at the Royal Victoria Hospital in Montreal she started her residency in Plastic Surgery at the University of Toronto under the tutelage of Dr. W.K. Lindsay. Nancy obtained her fellowship in 1976 and then did a prestigious 4-year Medical Research Council of Canada Research Fellowship under the supervision of Dr. Ralph Manktelow. Her interests in research and the pursuit of academia started early and remained an undying passion with Nancy. In that era, the concept of the Surgeon-Scientist was in its embryonic state and Nancy's career trajectory is a testament to its importance in academic surgery.

Nancy started her staff appointment as the first divisional female member at the University of Toronto in 1979 and became a full Professor in 1993. In her typically idiosyncratic and creative manner, she has maintained several unique staff cross-appointments in both the University of Toronto School of Physical and Health Education (since 1988) and the Department of Kinesiology at the University of Waterloo (since 1997). In this way, she has been able to expand the horizons of our specialty and develop collaborative and fruitful relationships with groups that don't routinely cross the path of the Plastic and Reconstructive surgeon. Most notably she has been integral in the success of several Surgeon-Scientist trainees including Dr. Bill Kuzon, Dr. Howard Clarke, and Dr. Joel Fish all of whom have risen to high levels of prominence in the academic arena of Plastic and Reconstructive Surgery.

### Recruitment:

**Heather Baltzer** was recruited as an Assistant Professor in the Division of Plastic & Reconstructive Surgery, University of Toronto and began her staff appointment at the Toronto Western Hospital, Hand Program with a cross appointment to the Division of Orthopaedics, UHN, in November 2015.

**Ron Somogyi** was recruited as an Assistant Professor in the Division of Plastic & Reconstructive Surgery, University of Toronto and began his staff appointment at Women's College Hospital with a cross appointment to the North York General Hospital in September 2015.

**Roberto Tutino** is a Lecturer in the Department of Surgery, Division of Plastic and Reconstructive Surgery at the University of Toronto. He is currently an associate at Trillium Health Partners where he is spearheading the Breast Reconstructive Surgery Program. Dr Tutino's appointment began in November 2015.

### Promotions:

**Jamil Ahmad** (Mississauga Aesthetic Clinic) was promoted to **Assistant Professor**

### Faculty and Resident Grants

**Katie Armstrong:** Principle Investigator, "The Effect of Mobile App Home Monitoring on the Number of In-Person Visits Following Ambulatory Surgery: cost-effectiveness analysis alongside a randomized controlled trial" Canadian Institute of Health Research Institute Community Support Travel Grant. \$1500: 2015.

**Katie Armstrong (PI) Steve McCabe, Herb von Schroeder, Nancy Baxter and Toni Zhong,** "Distal Radius Fracture Care in the Province of Ontario: Factors Impacting Management", Physician Services' Incorporated, \$18,500: 2015-2016.

**Dimitri Anastakis, (Collaborator), Fernie, G, Herb Von Schroeder, Christine Novak (PI):** Effect of Forearm Warming Compared to Hand Warming for Cold Intolerance Following Upper Extremity Trauma. American Foundation for Surgery of the Hand. Total Amount: 20,000 USD.  
2014 Jul - 2015 Jun: 2,500 USD (prorated).

**Oleh Antonyshyn and C. Whyne:** Industry-Academic Collaborative Project – Ontario Centres of Excellence ICIGT-OCE PROJECT 23253 Custom Craniofacial Implant System. Company Partner: Calavera 01/04/15 to 31/03/17. \$100k (total budget)

**Waler K. Collaborator(s): Antonyshyn O, Hetmanchuk V.** Capacity Building within Ukraine's Ministry of Defense Medical System. Global Peace and Security Fund, Foreign Affairs, Trade and Development Canada. Global Peace and Security Fund, Foreign Affairs, Trade and D. \$ 1,200,000.00 CAD.

**Greg Borschel:** Principal Investigator. FACE-Q Kids. Plastic Surgery Educational Foundation. n/a. Collaborator(s): **Davidge, Kristen M; Wong, Karen; Zuker, Ronald.** 2015 May

**Greg Borschel:** Award to Student. School of Graduate Studies Conference Grant. School of Graduate Studies – University of Toronto. Winter/Spring 2015 School of Graduate Studies Conference Gra. n/a. 680 CAD. Kasra Tajdaran. 2015 Mar - 2015 Sep  
Grober E, **Brown MH, Sempale J, Jarvi, K, Bagli D:** Development and



validation of a competency-based program of education and assessment of the fundamentals of micro surgery (FMS). Women's College Hospital Innovation Fund. (\$13,850 2015 - 2016).

**Joseph Catapano:** 2016 Plastic Surgery Foundation (PSF) Combined Pilot Research Grant (ID# 415663)

**Leila Kasrai,** Shahla Yekta, Asrat Mengiste, AMREF Kenya: Minimizing Burns with Cook Stove Barriers: A pilot project to test the feasibility of using resource-appropriate, locally manufactured barriers around cook stoves to prevent burn injuries in an urban slum in Kenya. United Nations Foundation (Grant Number: UNF-14-660). (\$31,000 2015 -2016)

**Greg Borschel:** Principal Investigator. School of Graduate Studies Conference Grant. School of Graduate Studies - University of Toronto, Winter/Spring 2015 School of Graduate Studies Conference Gra, n/a. [Grants]. Total Amount: 680 CAD. 2014 Jul - 2015 Jun: 389 CAD (prorated).

**Greg Borschel:** Principal Investigator. Enhancement of nerve regeneration with controlled release of neurotrophic factors. Canadian Institutes of Health Research / CIHR, operating grant, CIHR/NSERC Collaborative Health Research. Collaborators:

**Gordon, Tessa;** Shoichet, Molly S. [Grants]. Total Amount: 536,711 CAD. 2013 Jul - 2014 Jun: 174,068 CAD (prorated). 2014 Jul - 2015 Jun: 174,068 CAD (prorated). 2015 Jul - 2016 Jun: 145,057 CAD (prorated). Total Amount Attributed to Faculty Member: 536,711 CAD. The goal of the project is to enhance nerve regeneration by local controlled release of glial derived neurotrophic factor (GDNF) to rescue neurons from degenerating after injury.

**Robert Cartotto:** with co-investigator Dr. Dave Greenhalgh (University of California- Davis) received a 2 million USD grant from the US Department of Defense for the study "Acute Burn Resuscitation Prospective multicenter observational Trial" (ABRUPT).

**Robert Cartotto** (Co-Principal Investigator): David Greenhalgh, U California at Davis (Principal Investigator: Surviving Sepsis after Burns Campaign. US Department of Defense. W81XWH-09-02-014. 20,000 USD. (2014 - present)

**Robert Cartotto** (Co-Principal Investigator): David Greenhalgh, U California at Davis (Principal Investigator: Acute Burn Resuscitation Prospective Multicentre observational Trial (ABRUPT) United States Army, Department of Defense. 2015 Military Burn Research Program (MBRP). MB150076. PI: Greenhalgh, David. Collaborator(s): D.G. Greenhalgh MD FACS. Total Amount: 2,000,000 USD. June 2016- October 2020

**Karen Cross** and General Leung (Co-PIs). MIMOSA (Multispectral MOBILE tIssue Assessment). St. Michael's Hospital. Translational Innovation Fund. Total Amount: 95,000 (CAD) 2015 Jul- 2016 Jun: 3,958 (prorated)

**Karen Cross,** (Elisa F Greco, Co-Investigator) "Development of the Multispectral MOBILE tIssue Assessment (MIMOSA) device". 3 years; 386,072 2016

**Karen Cross** (Co-PI), Alexandre Douplik, Elisa Greco. Pulse Wave Velocity Imaging in the Assessment of Peripheral Arterial Disease. St. Michael's Hospital Blair Foundation for Vascular Surgery. Total amount 25,000 (CAD) 2015 Jul- 2016 Jun: 8,333 (prorated)

**Karen Cross** (PI). Reducing post-surgical complications by

identifying patients with malnutrition prior to surgery. AFP Innovation Fund. Total Funding 11,988 (CAD) 2015 Jul- 2016 Jun: 5,000 (prorated)

**Jeff Fialkov** and with co-PI, Cari Whyne: awarded a Canadian Institute of Health Research (CIHR), Proof of Principle: Phase I grant "Bone Tape": Optimization of a novel method for reconstructing the craniomaxillofacial skeleton (1 year - \$160,000). Jan. 2016.

**Joel Fish:** and PhD candidate Jennifer Zuccaro for a 2 year PSI grant worth \$169,500 for a project entitled "A randomized controlled trial investigating the use of ablative fractional carbon dioxide laser therapy to improve pediatric burn scars".

**David Fisher, Christopher Forrest, Karen Wong,** James Drake, Thomas Looi (Collaborators), **Dale Podolsky (PI):** Development of a robotic approach to cleft palate repair. Plastic Surgery Foundation. (\$9,000 - 2015-2016)

**Marc Jeschke.** Principal Investigator. Hepatic ER stress contributes to morbidity and mortality after burn injury. National Institutes of Health (NIH) (USA). NIH RO1 GM087285-01A2. [Grants] 2015 Oct - 2019 Oct

**Marc Jeschke.** Principal Investigator. Hepatic ER stress contributes to morbidity and mortality after burn injury. National Institutes of Health (NIH) (USA). NIH RO1 GM087285-01A2. [Grants] 2015 Oct - 2019 Oct

**Marc Jeschke** Principal Investigator. Catecholamines as primary mediators of post-burn hypermetabolism: A clinical prospective trial. Canadian Institute of Health Research (CIHR). 123336. Collaborator(s): Rubenfeld, Gordon, Boehning, Darren. 851,939. [Grants]

**Marc Jeschke** 5-year CIHR Operating Grant - \$170,388 per year. 2012 Oct - 2017 Sep

**Marc Jeschke** AFP Grant Development of skin from autologous Stem cells.

**Mile Stanijocic PI Marc Jeschke:** the role of NLRP3 inflammasome after burn. CIHR Fellowship Abdikarim Abdullahi PI Marc Jeschke: Vanier Award Browning of the adipose tissue. 2016-2018.

**Christine Novak** (Principal Investigator), **Steve McCabe:** Cold Exposure Responses in Hand Trauma Patients with Cold Sensitivity. Awarded \$10,000 USD (July 1, 2015 - June 30, 2016) from the 2015 American Association for Hand Surgery Research Grant Award.

**John Semple,** Bhatia RS, Coyte P, **Armstrong K.:** Replacing ambulatory clinic follow-up with remote home monitoring using smartphone in breast reconstruction patients: Is it cost-effective? Semple JL, Canadian Institute of Health Research. (\$39,903 2014 - 2016.)

**Karen Wong** An International Study to Develop a Patient-Reported Outcome Instrument for Conditions Associated with a Facial Difference; FACE-Q Kids." 2 years; \$378,427 2016

**Karen Wong** (PI). Collaborator(s): A. Klassen, **C. Forrest,** Co-Principal Investigator, A. Pusic. An international study to develop a patient reported outcome instrument for cleft lip and/or palate patients: The CLEFT-Q. CIHR open Operating Grant. 602,389 CAD. 2013 Jan - 2018 Dec

**Toni Zhong** Pre-consultation Educational Group Intervention to Improve Shared Decision Making for Postmastectomy Breast Reconstruction. Canadian Breast Cancer Foundation (CBCF) - Ontario Region. 352,785 CAD. [Clinical Trials] 2015 Jul – 2018 Jun

PI: Zhang, Li. Collaborator(s): **Zhong, Toni**, Zuniga-Pflucker, J. Establishing donor-specific transplantation tolerance by harnessing DN regulatory T cells. Canadian Institutes for Health Research. Transitional Operating Grant: 924,035 CAD. [Grants] 2015 Jul – 2020 Jun

**Toni Zhong** (PI), Dr. N. Baxter **Dr. S. Hofer** Dr. J. Jones, Dr. S. Macadam Dr. K. Metcalfe Mr. T. Panzarella, Dr. G. Porter Dr. A. Pusic Dr. A. Roberts, **Dr. J. Semple** Dr. C. Temple-Oberle Dr. F. Webster, Dr. A. Wei (Collaborators). Development of a National Quality Improvement Program in Postmastectomy Breast Reconstruction to Optimize Patient-Centred Experience. Canadian Institutes of Health Research (CIHR). Foundation Scheme Live Pilot. Total Amount: \$860,006 CAD. 2015 Jul - 2016 Jun: \$172,000 CAD (prorated).

**Toni Zhong Z**, Zuniga-Pflucker, J, (Collaborators), Zhang, Li (PI): Establishing donor-specific transplantation tolerance by harnessing DN regulatory T cells. Canadian Institutes for Health Research. Transitional Operating Grant: Total Amount: \$924,035 CAD. 2015 Jul - 2016 Jun: \$184,807 (prorated).

**Toni Zhong** (PI), Dr. Nancy Baxter, **Dr. Brett Beber**, Dr. Terry Cheng, Dr. Jeffrey Hoch, **Dr. Stefan Hofer**, Dr. Wanrudee Isaranuwachai, Dr. Jennifer Jones, Dr. Kelly Metcalfe, **Dr. Anne O’Neill**, Mr. Tony Panzarella, **Dr. Jennica Platt**. Pre-consultation Educational Group Intervention to Improve Shared Decision Making for Postmastectomy Breast Reconstruction. Canadian Breast Cancer Foundation (CBCF) - Ontario Region. Total Amount: \$352,785 CAD. 2015 Jul - 2016 Jun: \$117,595 (prorated).

**Ron Zuker**: Co-Investigators: **G. Borschel**, E. Ho. “Outcome Analysis of Muscle Transplantation for Moebius Syndrome” “Moebius Syndrome Patient Registry” Total Amount: \$131,000 USD

**Ron Zuker**: “Educational Exchange Programme for Cleft Lip and Palate Repair: West Bengal and Assam India. \$110,000 CDN

## Residents Honours/Awards/Positions Held

**Katie Armstrong**: 2016 Mentor Best Clinical Paper Award, Resident Research Day, the Division of Plastic & Reconstructive Surgery, University of Toronto, Toronto, Ontario.

**Katie Armstrong**: 2015 Outstanding Paper Award (Trainee Category), Women’s College Hospital Research Institute, Toronto, Ontario.

**Katie Armstrong**: 2015 Michael Dexter Scholarship for Health Leadership and Policy Studies, St. Elizabeth Foundation, Toronto, Ontario. Awarded annually to a high-performing graduate student; ideal for students aspiring for a health leadership, executive or board role in the Canadian Health Care system.

**Katie Armstrong**: 2015 – Present **Innovation Fellow**, Women’s College Hospital Institute for Health System Solutions and Virtual Care, Toronto, Ontario.

**Ryan Austin**: Appointment as a “next generation” editor in the Aesthetic Surgery Journal. 2015-2016

**Ryan Austin**: Hugh Thompson Humanitarian Award 2015-2016. To commemorate his legacy, the Thomson family and the Division of Plastic and Reconstructive Surgery at the Hospital for Sick Children

have established an award in his name to be given to the trainee in Plastic and Reconstructive Surgery who best emulates his values of collegiality, honesty, generosity, mentorship and humanitarianism.

**Joseph Catapano**: 2015-2016 Postgraduate Research Awards: Edward Christie Stevens Fellowships in Medicine, Dept. of Medicine, UofT

**Joseph Catapano**: 2016 - Allergen Prize for Basic Science Research, University of Toronto Plastic and Reconstructive Surgery Research Day, UofT

**Joseph Catapano**: 2015-2018 Frederick Banting and Charles Best Doctoral Award, CIHR

**Joseph Catapano**: 2015 Hilda and William Courtney Clayton Paediatric Research Fund, School of Graduate Studies, UofT

**Kathryn Isaac**: 2016 FM Woolhouse Award for Best Clinical Paper at the Canadian Society of Plastic Surgery Annual Meeting: “Constructing skin graft seams in burn patients: A prospective randomized double blinded study” with co-authors N. Umraw and Rob Cartotto.

**Kathryn Isaac**: 2016 D. R. Wilson Award: Awarded to a surgical resident rated as an outstanding teacher by undergraduate students in the Department of Surgery

**Kathryn Isaac**: 2016 Best Clinical Paper Award, Division of Plastic & Reconstructive Surgery Research Day

**Kathryn Isaac**: 2012 – present Board of Examiners, Resident Member, Post Graduate Medical Education, University of Toronto

**Kathryn Isaac**: 2014 – present Reviewer, Aesthetic Surgery Journal

**Kathryn Isaac**: 2016 – present Reviewer, Plastic Surgery Journal

**Jennica Platt**: Best Poster by a resident for her work “NippleSAVE Video: Development and validation of a patient educational video to increase patient knowledge regarding Nipple-Sparing Mastectomy” with co-authors T. Cil, L. Chan, Stefan Hofer and Toni Zhong.

**Dale Podolsky**: 2015-2016 Post Graduate Research Award: Edward Christie Stevens Fellowships in Medicine.

**Dale Podolsky** Basic Innovation Award for his presentation “The feasibility of da Vinci robotic cleft palate repair and development of a novel robotic instrument for trans-oral robotic surgery” with co-investigators **David Fisher, Karen Wong**, Thomas Looi, Jim Drake and **Chris Forrest**.

**Dale Podolsky** Best Basic Science Award, Division of Plastic and Reconstructive Surgery, University of Toronto 2016: “Development of a Robotic Approach to Cleft Palate Repair”  
AUTHORS: Dale J Podolsky, David M Fisher, Karen W Wong, Thomas Looi, James M Drake, Christopher R Forrest,  
SUPERVISOR: Dr. Christopher R Forrest & Dr. James M Drake

**Dale Podolsky** (Supervisors Drs. Christopher Forrest and Jim Drake) awarded the prestigious Vanier Scholarship. Dale’s PhD thesis is focused on developing a robotic approach to cleft palate repair and he has developed a remarkable surgical simulator to aid in his work. This scholarship is valued at \$50,000 per year for three years during doctoral studies and considers three equally weighted evaluation



criteria: academic excellence, research potential, and leadership.

**Sebastian Vrouwe:** Junior Scholar for the med student Portfolio course and Senior Resident Residency Program Committee rep

## Faculty Honours/Awards/Positions Held

**Jamil Ahmad:** was awarded the Division of Plastic and Reconstructive Surgery Chair's "Above and Beyond" award 2015-2016. Jamil has done a terrific job of managing the Resident Aesthetic Clinic and also recruits some big names in the field to talk at the GTA Lecture Series. He co-organizes the Toronto Aesthetic Symposium. He continues to run a busy practice and productive academic profile.

**Jamil Ahmad:** William K. Lindsay Faculty Research Mentor Award

**Dimitri Anastakis:** Positions Held and Leadership Experience

## Positions Held and Leadership Experience

### Hospital

[Service > Positions Held and Leadership Experience > Hospital](#)

2015 Feb 6 - present

**Consultant Staff.** Surgery, Womens' College Hospital, Toronto, Ontario, Canada.

2007 Jul 1 - present

**Consultant Staff.** Surgery, Mount Sinai Hospital, Toronto, Ontario, Canada.

1997 Jan - present

**Consultant Staff.** Division of Plastic Surgery, Surgical Services, Toronto Western Hospital, University Health Network, Toronto, Ontario, Canada.

### University

[Service > Positions Held and Leadership Experience > University](#)

2005 Jul 1 - present

**Associate Member.** School of Graduate Studies, University of Toronto, Toronto, Ontario, Canada.

2002 Dec 13 - present

**Associate Member.** Institute of Medical Science, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada.

### University - Rank

[Service > Positions Held and Leadership Experience > University - Rank](#)

2011 May 1 - present

**Professor.** Plastic and Reconstructive Surgery, Surgery, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada.

2010 Jul 1 - present

**Professor (Status Only).** Lawrence S. Bloomberg Faculty of Nursing, University of Toronto, Toronto, Ontario, Canada.

### Ontario Not for Profit Corporation

[Service > Positions Held and Leadership Experience > Ontario Not for Profit Corporation](#)

2014 Oct - present

**Member, BOD Membership Committee.** SIM-one, Ontario Simulation Network, Ontario, Canada.

2014 Oct - present

**Chair, BOD Nominating Committee.** SIM-one, Ontario Simulation Network, Ontario, Canada.

2014 Sep - present

**Chair Board of Directors.** SIM-one, Ontario Simulation Network, Toronto, Ontario, Canada.

## Administrative Activities Other International

[Service > Administrative Activities > Other > International Association for Surgical Education](#)

2015 Apr - present

ASE Development Committee, Chicago, Illinois, United States.

2012 Mar - present

**Past President,** Board of Directors, Chicago, Illinois, United States.

## National

[Service > Administrative Activities > Other > National University of Manitoba](#)

2016 May 29 - 2016 May 31

CACME Accreditation Site Visit, Continuing Education, CPD Medicine Program, Office of Continuing Competency and Assessment, Faculty of Medicine, Winnipeg, Manitoba, Canada.

## Provincial / Regional

[Service > Administrative Activities > Other > Provincial / Regional Cancer Care Ontario](#)

2011 Apr 1 - present

**Clinical Lead,** Access to Care Surgery and Diagnostic Imaging Advisory Council, Toronto, Ontario.

## Local

[Service > Administrative Activities > Other > Local Department of Surgery](#)

2015 Nov 15

Finance Committee, Toronto, Ontario, Canada. Toronto Western Hospital

1996 Jan 1 - present

**Member,** Hand Program Business Group, University Health Network, Toronto, Ontario. University Health Network

1997 Jul 29 - present

**Member,** University Health Network Medical Staff Association, Toronto, Ontario.

## Oleh Antonyshyn:

[Positions Held and Leadership Experience](#)

2004 - present

**Associate Scientist.** Imaging/Trauma Research, Sunnybrook Research Institute, Toronto, Ontario.

1996 Sep 1 - present

**Head.** Craniofacial Program, Sunnybrook Health Sciences Centre, Toronto, Ontario.

1992 - present

**Consultant Staff.** Plastic Surgery, Sunnybrook Health Sciences Centre, Toronto, Ontario.

1992 - present

**Consultant Staff.** Plastic Surgery, Toronto Bayview Regional Cancer Centre, Toronto, Ontario.

2011 May - present

**Professor.** Plastic and Reconstructive Surgery, Surgery, University of Toronto, University of Toronto, Ontario, Canada.

1996 May 1 - present

**Professor.** Surgery, University of Toronto, Toronto, Ontario.

1992 - present

**Member,** Craniofacial Team, Department of Surgery.

1992 - present

**Member,** Research Committee, Plastic Surgery, Department of Surgery.

## Advanced Craniomaxillofacial Forum

2008 Jan - present

**Member,** Research Board.

## Advanced Craniomaxillofacial Forum / University of Toronto

2008 Jul - present

**Course Director,** Craniofacial Symposium Organizing Committee.

### *AO International*

2009 Feb - present

**Board Member**, Craniomaxillofacial Clinical Priority Program Committee: Imaging and Planning in Surgery.

### *AO/ASIF*

1995 Feb 1 - present

**AO Faculty Member**, North American Maxillofacial Education Committee.

### *Ontario Society of Plastic Surgeons*

2007 May - present

**Reviewer**, Tariff Committee, Ontario Ministry of Health Fee Discrepancies for Craniofacial Surgery.

### *Sunnybrook Health Sciences Centre*

2006 Jul 17 - present

**Member**, Sunnybrook Division of Plastic Surgery Review Committee, Toronto, Ontario.

1995 Jul - present

**Head**, Craniofacial Program, Toronto, Ontario.

**Oleh Antonyshyn:** Department of Surgery Undergraduate Teaching Award, Sunnybrook Health Sciences Centre, May 25, 2016

**Oleh Antonyshyn:** Received the Marvin Tile Award given by the Department of Surgery at Sunnybrook Health Sciences Centre for his outreach activities in the Ukraine. Dr. Antonyshyn, along with a team of 24 others volunteered for a 10-day mission in November 2014, and then again in May 2015 to work alongside Ukrainian doctors and nurses to perform complex reconstructive surgeries on victims of the Euromaidan movement and from the battle in Eastern Ukraine. He has worked on developing the infrastructure, provided teaching opportunities and restored the lives of many patients affected by the conflict. His work has also been recognized by Canada's Minister of Foreign Affairs, Rob Nicholson and he has been awarded a 1.2 million dollar federal grant from the "Global Peace and Security Fund" to support "Capacity Building within Ukraine's Ministry of Defense Medical System". This is a project supports efforts to equip, supply and train local health professionals in the Main Military Hospital in Kyiv to treat craniofacial and upper extremity trauma and post-trauma deformities. The project involves 2 additional missions in the next year, equipping OR's with craniofacial and micro instruments and hardware, better access to imaging, development of telemedicine and telesurgery support, Trauma Life Support training, observerships. This is a remarkable example of true global outreach and Oleh and his team are to be commended for this work.

**Oleh Antonyshyn Medal:** Order of Merit, 3rd class, Government of Ukraine, Kyiv, Ukraine. (Distinction), February 24th, 2016, Dr. Oleh Antonyshyn (Sunnybrook Health Sciences Centre) was recognized at the highest level by the Canada Ukraine Foundation for his contributions to the Ukrainian people and assistance in managing victims of the conflict that continues to impact people of all ages in that region. He was presented with the country's Order of Merit by Ukrainian President Peter Poroshenko along with another team member, Hamilton Plastic Surgeon, Dr. Carolyn Levis.

**Greg Borschel:** 2015 Jan Resident Clinical Paper Award / American Society for Peripheral Nerve, Plastic and Reconstructive Surgery, Supervisor, Awardee Name: Catapano, Joseph. The Hospital for Sick Children, United States

**Greg Borschel:** 2015 Jan Best Clinical Paper Award 2015 for "Corneal Neurotization: A Minimally Invasive Approach (Catapano J, Elbaz U, Ali A, Zuker R, Borschel GH), Faculty Supervisor, Awardee Name: Joseph Catapano. American Society for Peripheral Nerve, United States

**Mitch Brown:** Arnis Freiberg Faculty Teaching Excellence Award - Presented in recognition of outstanding contributions to plastic surgery resident education. 2016.

**Mitch Brown:** President's Medal - Canadian Society of Plastic Surgeons. In recognition of extraordinary contribution to the betterment of the specialty of Plastic Surgery. 2016.

**Mitch Brown:** Chairman's Medal - Division of Plastic and Reconstructive Surgery - University of Toronto. Recognizing contributions to the Division of Plastic and Reconstructive Surgery. 2016.

**Robert Cartotto:** Feb 2016. Prize for Best Clinical Paper Award. **Mentor Canada**, Supervisor: Cartotto R. Awardee Name: K. Isaac. University of Toronto, Division of Plastic Surgery Research Day 2016, Toronto, Ontario, Canada  
*Johnson and Johnson Medical Companies*

**Robert Cartotto:** June 2016. Best Clinical Paper, Canadian Society of Plastic Surgeons Meeting, Ottawa, Ontario, Canada. Constructing Skin Graft Seams in Burn Patients: A Prospective Randomized Double Blinded Study. Supervisor: Cartotto, R. Awardee: K. Isaac.

**Robert Cartotto:** July 2016. Recognition Award University of Toronto, Department of Physical Therapy. Recognition Award for team providing great learning environments, guidance, supervision and are an inspiration to physical therapy students.

**Robert Cartotto:** [Positions Held](#)  
2004 Jul 1 - present Associate Professor, Surgery, University of Toronto, Toronto, Ontario  
2015 - present Member, Program Committee, American Burn Association  
2013 - present Member, American Burn Association ad hoc Expert Panel on Fluid Resuscitation  
2016 - 2018 Member, Burn Science Advisory Panel, Multi-Centre Trials Group, American Burn Association

**Howard Clarke:** [Service > Positions Held and Leadership Experience > Consulting](#)  
1987 - present **Consulting Staff, Maxillo-facial Clinic.** Holland Bloorview Kids Rehabilitation Hospital, Toronto, Ontario.

**Hospital** [Service > Positions Held and Leadership Experience > Hospital](#)  
1987 - present **Active Staff Surgeon, Plastic Surgery.** The Hospital for Sick Children, Toronto, Ontario.  
1987 - present **Associate Staff Surgeon, Plastic Surgery.** University Health Network, Toronto, Ontario.

**University** [Service > Positions Held and Leadership Experience > University](#)  
2003 - present **Clinical Professor.** College of Medicine, Korea University, Seoul, Korea.

**University - Cross Appointment** [Service > Positions Held and Leadership Experience > University - Cross Appointment](#)



2003 - present **Professor.** Department of Physical Therapy, University of Toronto, Toronto, Ontario.

**University - Rank** [Service > Positions Held and Leadership Experience > University - Rank](#)

2003 - present **Professor.** Department of Surgery, University of Toronto, Toronto, Ontario.

#### **Administrative Activities University of Toronto**

[Service > Administrative Activities > University of Toronto](#)

2014 - present **Co-Chair,** Promotions Committee, Department of Surgery.

**Other International** [Service > Administrative Activities > Other > International](#)

[American College of Surgeons](#)

2013 - present **Member,** Advisory Council for Plastic and Maxillofacial Surgery.

[American Society of Plastic Surgeons](#)

2013 - present **ASPN Representative,** Board of Directors.

[Associacao Brasileira de Cirurgia da Mao](#)

2007 - present **Membro Correspondente.**

[International Confederation of Plastic Surgery Societies \(ICOPLAST\)](#)

2016 - present **Chair,** Board of Directors.

**National** [Service > Administrative Activities > Other > National](#)

[Canadian Society of Plastic Surgeons](#)

2016 - present **Past President.**

2015 - 2016 **President.**

2014 - 2015 **Vice President.**

[Royal College of Physicians and Surgeons of Canada](#)

2012 - present **Member,** Specialty Committee in Plastic Surgery.

#### **Peer Review Activities Editorial Boards Member**

[Service > Peer Review Activities > Editorial Boards > Member](#)

2001 - present **Member.** Journal of Reconstructive Microsurgery.

**Grant Reviewer** [Service > Peer Review Activities > Grant Reviews > Grant Reviewer](#)

1998 - present **Grant Reviewer.** Canadian Institutes of Health Research.

1991 - present **Grant Reviewer.** Fonds de la Recherche en Sante du Quebec.

#### **Other Noteworthy Activities**

[Service > Other Noteworthy Activities](#)

2001 - present **Touchmark Theatre, Board of Directors**

**Howard Clarke:** The Chair of the newly formed Board of Directors elected in Punte del Este is Dr. Howard Clarke (Toronto), CSPA member and President. Congratulations to Howard as he moves from presidency to chairmanship.

**Karen Cross:** 2016 Angels' Choice Award for MIMOSA (Multispectral Mobile Tissue Assessment)

**Karen Cross:** 2015-2016 First Annual Division of Plastic and Reconstructive Surgery Research Award, University of Toronto, to Dr. Karen Cross. Given to reward "up and coming" rising stars in the division who are demonstrating remarkable productivity in their first 5 years of practice.

**Jeff Fialkov:** continues to work on craniofacial biomechanics and has filed for a patent related to a unique method of bone stabilization.

**Craig Fielding:** continues as Division Head at St Joseph's, and has as well led four sessions on Medical Ethics/Professionalism during the Monday morning teaching series. He participated in a Surgical skills session on basic suturing and dissection, and presented his approach to the management of Gynecomastia at the U of T Aesthetic Symposium. He is a member of the PGME Internal Review Committee which oversees all the training programs in the university.

**Joel Fish:** Ronald M. Zuker Award. This award is designed to recognize any member of the division including faculty, fellow or resident who demonstrates the values of collaboration, surgical innovation, and a healthy disregard for the status quo in an effort to improve and push the envelope. The first Ronald M. Zuker award was given to Dr. Joel Fish (SickKids) for his transformative work in Pediatric Burn Care. Since joining the staff at SickKids in 2009, Joel has done a magnificent job of changing the way that pediatric burns were traditionally managed and resulted in ABA certification as the first accredited Pediatric Burn Program in Canada.

**David Fisher:** 2015 Aug. York University Continuing Student Scholarship, York University.

#### **Positions Held:**

2000 Jan – Present	Courtesy Medical Staff. St. Joseph's Health Centre, Toronto.
2004 Jul – Present	Active Staff, Medical Director, Cleft Lip & Palate Program, Division of Plastic & Reconstructive Surgery. The Hospital for Sick Children, Toronto.
2005 Jan – Present	Project Director, Population Health Sciences Program. The Hospital for Sick Children, Toronto.

#### **University – Rank:**

2010 Jul 1 – Present Associate Professor. Plastic and Reconstructive Surgery, Department of Surgery, University of Toronto, Toronto.

#### **University – Cross Appointment:**

2015 Oct 6 – 2016 – Jun 30 Associate (Restricted) Graduate Faculty (Dentistry). University of Toronto, Toronto.

#### **Christopher Forrest:**

2011 Sep - present	Chair, Division of Plastic and Reconstructive Surgery, University of Toronto, Toronto, Ontario, Canada
2006 Mar 1 - present	Professor, Surgery, University of Toronto, Toronto, Ontario, Canada
2003 Jan 1 - present	Head, Division of Plastic and Reconstructive Surgery, The Hospital for Sick Children, Toronto, Ontario, Canada

1999 Feb 10 - present	Full Member, Cardiovascular Collaborative Sciences Collaborative Program, Toronto, Ontario, Canada	of Plastic Surgery, St. Joseph's Health Centre, Toronto, Ontario
1999 Jan 1 - present	Medical Director, The Centre for Craniofacial Care and Research, The Hospital for Sick Children, Toronto, Ontario, Canada	2001 – Present Associate Staff, Division of Plastic & Reconstructive Surgery, The Hospital for Sick Children, Toronto, Ontario
1998 May 29 - present	Full Member, Institute of Medical Science, University of Toronto, Toronto, Ontario, Canada	

**University of Toronto**

2011 Sep - present Member: Senior Advisory Committee, Faculty of Medicine, Dept of Surgery, Plastic Surgery, Toronto, Ontario, Canada.

**OTHER**

**American Society of Maxillofacial Surgeons**

2002 - present Member, Research Committee

**American Society of Plastic Surgery**

2000 Nov 1 - present Committee Member, Scientific Program Committee

2000 Oct 1 - present Committee Member, Instructional Course Committee

**AO/ASIF Continuing Education**

1995 Sep 9 - present Faculty Member, AO/ASIF North American Maxillofacial Education Committee

**EDITORIAL BOARDS**

**Reviewer**

2010 Jan - present JPRAS

2003 - present American Cleft Palate Craniofacial Journal

**Reviewer**

2001 Jan 1 - present Plastic and Reconstructive Surgery

1995 Sep 1 - present Microsurgery Journal

**GRANT REVIEWS**

**Member**

1995 Sep 1 - present Plastic Surgery Education Foundation, PSEF Grant Review Committee.

**Tessa Gordon:** awarded a Doctor of Science degree from University of Birmingham, UK.

**Brent Graham:** Editor in Chief, Journal of Hand Surgery.

**Marc Jeschke:** RTBC was awarded Best of the Best Award and came in second place amongst the top 10 performing ICUs in the International Nutrition Survey and the top performing burn site.

**Marc Jeschke** Program Chair of the 39th Annual Conference on Shock 2016 in Austin, Texas

**Marc Jeschke** was elected executive Council Member of the Surgical Infection Society.

**Leila Kasrai:** University Appointment

2000 – Present – Assistant Professor, University of Toronto, Toronto, Ontario

**Hospital Appointments**

2000 – Present Active Member, Department of Surgery, Division

**Alan Rogers:** Best Publication Association of Plastic, Reconstructive and Aesthetic Surgeons of South Africa, Annual Conference October 2015; ‘Dos Passos G, Rogers AD, Price CE, Pienaar C, van Zyl HE, Hudson DA. Loupe Magnification for Head and Neck Free Flap Reconstruction in a Developing Country. Eur J Plast Surg 2015’

**Ron Levine** is the Director of Postgraduate Surgical Education, and continues to be heavily committed to education at all levels.

**Joan Lipa:** appointed Senior Examiner for the American Board of Plastic Surgery

**Joan Lipa, Laura Snell, Catherine McMillan:** Sunnybrook Education Advisory Committee Annual Education Grant: Supporting pre-operative education for patients pursuing immediate breast reconstruction: the impact of patient mentoring.

**Frank Lista:** Section Editor for the Breast Section of the Aesthetic Surgery Journal.

**James Mahoney:** Medical Director, Perioperative Services, St. Michael's Hospital.

**Steve McCabe:** Dr. Steve McCabe and his team of 18 surgeons performed the first upper extremity transplant at Toronto Western Hospital. Dr. McCabe was one of the original group of surgeons in Louisville who performed the first hand transplant in 1999. Steve returned to Canada in 2012 to take Directorship of the Hand Unit at the University Health Network. This was an amazing feat of planning and many months to years in the making and represents a terrific team effort. While the surgical team comprised surgeons from the Hand Unit at Toronto Western, Toronto General Hospital and the Hospital for Sick Children, there was a remarkable collaborative effort involving the Division of Plastic and Reconstructive Surgery, the Trillium Gift of Life, Transplantation Service from UHN, UHN Administration and the Ministry of Long Term Health and Care.

**Christine Novak:** Associate Editor: Journal of Hand Surgery (2012–2015); HAND 2006–present; Physiotherapy Canada (2003–2015)

**Christine Novak:** Associate Editor for Journal of Hand Surgery, HAND and Physiotherapy Canada

**Christine Novak:** American Society for Peripheral Nerve, Council Member

**Christine Novak:** American Association for Hand Surgery, Member, Program committee

**Christine Novak:** Touching Hands Project, American Foundation for Surgery of the Hand, Haiti Adventist Hospital, Port au Prince, Haiti, July 6-13, 2014

**Christine Novak:** University of Toronto Centre for the Study of Pain, Executive Committee, 2013–present & Education Subcommittee, 2013–present

**Christine Novak:** Graduate Department of Rehabilitation Science, Admission & Awards Committee, 2013–present



**John Semple:** Awarded the “Mentor Award” by the Women’s College Hospital Research Institute. 2016.

**John Semple:** University of Toronto – Gallie Day: Award in recognition of 10 years of service as the Chief of Surgery at Women’s College Hospital. 2016.

**Kyle Wanzel:** 2015–2016 St Joseph’s Division of Plastic Surgery Preceptor Award.

**Kyle Wanzel:** single handedly leading the charge to attract the best and brightest medical students to consider a career in Plastic and Reconstructive Surgery. Each year, Kyle gives an annual talk to the 1st and 2nd year medical students about our specialty as a part of the SEAD Program. Surgical Exploration And Discovery (SEAD) Program is a 2-week summer program for medical students looking to gain multi-faceted exposure to the direct entry surgical specialties at the University of Toronto. The SEAD Program is premised on the intertwining 4 ‘E’s’ of exposure, education, experience and engagement. This year, 75 students turned out (best ever) and the response was terrific! Great work Kyle! The future of our specialty lies in engaging and interacting with the medical students – with a curriculum that has very limited opportunity for exposure to Plastic & Reconstructive Surgery, this is a challenge. The SEAD Program is a great way for us to get the message out.

**Toni Zhong:** George Armstrong Peters Prize for Department of Surgery, University of Toronto. (Distinction) Awarded to a young investigator who has shown outstanding productivity during his/her initial period as an independent investigator as evidenced by research publications in peer reviewed journals, grants held, and students trained.

**Toni Zhong:**  
2016 - Women in Microsurgery Working Group of the American Society of Reconstructive Microsurgeons (ASRM).

**Ron Zuker:**  
2015 – present Member, Department of Surgery, University of Toronto, Alumni Committee

**Ron Zuker:**  
2012 - present Team Lead, Vascularized Composite Allotransplantation Program, Department of Surgery, University of Toronto

**Ron Zuker:**  
2006 - present Co-Chair, Vascularized Composite Allotransplantation Committee, Toronto, Ontario.

**Ron Zuker:**  
2013 – present Chairman, Clinical Ultrasound Standards Committee, The Hospital for Sick Children.

**Ron Zuker:** American Academy of Pediatrics  
2002 - present Ex Officio, Past Chair, Executive Committee, Section on Plastic Surgery

**Ron Zuker:** American Society for Reconstructive Microsurgery  
2011 Feb present. Endowment Committee, United States

**Ron Zuker:** International Registry of Hand and Composite Tissue Transplantation  
2007 - present Section Coordinator, Lower Limb Transplantation

**Ron Zuker:** Moebius Syndrome Foundation  
2002 - present Scientific Advisory Board, United States

**Ron Zuker:** Operation Smile International  
2000 - present **Member**, Member, Plastic Surgery Council

**Ron Zuker:** World Society for Reconstructive Microsurgery  
2010 - present **Liaison for Canada**, Liaison for Canada **Member**, Liaison for Canada

**Ron Zuker:** Canadian Magen David Adom for Israel  
1996 - present **Honorary Director**, Executive Committee

2008 - present Editorial Board (Revised), Journal of Reconstructive Microsurgery

1996 - present Editorial Board, Journal of Craniofacial Surgery

## Visiting Professors

**Jamil Ahmad:** Travelled Amman, Jordan with ISAPS-LEAP Surgical Relief Team 2015.

**Jamil Ahmad:** Invited speaker to Iranian Society of Plastic Surgeons to speak at the 8<sup>th</sup> International Congress of Advanced Rhinoplasty and Facial Plastic Surgery 2015.

**Dimitri Anastakis:** *Invited Lectures and Presentations*

2016 Jan 16

**Presenter.** Longitudinal study of pain, personality and plasticity following peripheral nerve injury. American Society for Peripheral Nerve, Scottsdale, Arizona, United States.  
Presenter(s): Anastakis DJ.  
Total Hours: 1

2015 Dec 5

**Invited Speaker.** Panel – Current Challenges in Canadian Health Care. Harvard School of Public Health, Boston, Massachusetts, United States.  
Presenter(s): Dimitri Anastakis, Lucie Opatrny, Peter Pisters. (1) Provide an educator’s perspective to the challenges and opportunities facing the Canadian Health care system  
(2) Coordinated Continuing Professional Development aligned with system needs is critical to quality improvement and patient safety  
(3) Simulation will play an important role in quality improvement and patient safety.  
Total Hours: 1

## National

2016 May 7

*Research Activities > Presentations and CE Activities > National Invited Lectures and Presentations*

**Invited Speaker.** Peripheral Nerve Transfers in the Upper Extremity. Canadian Society of Hand Therapists, Toronto, Ontario, Canada.  
Presenter(s): DJ Anastakis. Define nerve transfers (NT) Describe the rationale and indications for NT List the principles of NT Understand NT nomenclature Better understand commonly performed NT and their outcomes.  
Total Hours: 8

*Presented Abstracts*

2016 Jun 16

**Co-author.** Effect of forearm warming

	<p>compared to hand warming for cold intolerance following upper extremity trauma. Canadian Society of Plastic Surgeons, Ottawa, Ontario, Canada. Presenter(s): C Novak*, Y Li, H von Schroeder, D Anastakis, G Fernie, S McCabe.</p>	<p>Outcomes Following Upper Extremity Tendon Transfers. Hand Program, Toronto Western Hospital, UHN, Toronto, Ontario, Canada. Supervisor(s): Anastakis. Collaborators: Christine Novak, Mary Chang and Lorna Aitkens. <i>Retrospective review of outcomes following tendon transfer for upper extremity paralysis - 10 year review.</i></p>
2016 Jun 14	<p><b>Presenter.</b> Evaluation of Ontario Provincial Wait Times for Delayed Peripheral Nerve Surgery. Canadian Society Surgery of the Hand, Ottawa, Ontario, Canada. Presenter(s): DJ Anastakis, , CB Novak, HL Baltzer, G Austria, J Dang, S Shakya, R Menalo. Learning Objectives Participants will be able: 1. To describe the variation in surgical care for delayed peripheral nerve surgery. 2. To identify the regions with the shortest wait times for delayed peripheral nerve surgery. Total Hours: 1</p>	<p>2015 Sep - present <b>Supervisor.</b> Type: Research Project. Lipofibromatous Hamartomata of the Upper Extremity. Hand Program, Toronto Western Hospital, UHN, Toronto, Ontario, Canada. Supervisor(s): Anastakis. Collaborators: Maryam Saheb-Al-Zamani and Laurent Wehrli. <i>Retrospective review of LFH cases - Diagnosis, Treatment and Outcomes.</i></p>
2016 Jun 14	<p><b>Presenter.</b> Longitudinal study of pain, personality and plasticity following peripheral nerve injury. Canadian Society Surgery of the Hand, Ottawa, Ontario, Canada. Presenter(s): Anastakis DJ, Goswami R, Katz J, Davis KD. Learners developed a greater understanding of the interplay between sensory recovery, personality, pain and cortical plasticity. Total Hours: 1</p>	<p>2016 Jan 1 - 2016 Jun 30 <b>Co-Supervisor.</b> Type: Research Project. Prevalence of Cold Sensitivity in Upper Extremity Nerve Compression Syndromes. Hand Program, University of Toronto, UHN, Toronto, Ontario, Canada. Supervisor(s): Christine Novak and Dimitri Anastakis. Collaborators: Research Fellow - Dr. Michael Wendt.  <i>Purpose</i>  <i>The overall aim of this study is to evaluate the prevalence of cold sensitivity in patients with upper extremity nerve compression syndromes. We hypothesize, that patients with peripheral nerve compression syndromes will have cold sensitivity. To our knowledge there have been no studies that have evaluated the prevalence of cold sensitivity in nerve compression syndromes.</i></p>
<b>Provincial / Regional</b>	<p><a href="#">Research Activities &gt; Presentations and CE Activities &gt; Provincial / Regional</a></p>	
	<p><a href="#">Invited Lectures and Presentations</a></p>	
2015 Sep 14	<p><b>Visiting Professor.</b> Cortical Plasticity following Peripheral Nerve Injury, Repair and Rehabilitation. Department of Biological Science, University of Windsor, Windsor, Ontario, Canada. Presenter(s): D. J. Anastakis. Total Hours: 8</p>	<p><b>Oleh Antonyshyn:</b> Visiting Professor: Atlantic Society of Plastic Surgeons, Halifax, Nova Scotia, Oct 2015</p>
<b>Local</b>	<p><a href="#">Research Activities &gt; Presentations and CE Activities &gt; Local</a></p>	
	<p><a href="#">Invited Lectures and Presentations</a></p>	
2015 Nov 20	<p><b>Invited Lecturer.</b> A Perspective on Academic Leadership. Division of Plastic and Reconstructive Surgery, Toronto, Ontario, Canada. Presenter(s): D. J. Anastakis. Objectives 1. Define the competencies of leadership 2. Describe the 4D model for career development 3. Develop a greater understanding _of power and influence. Total Hours: 1</p>	<p><b>Oleh Antonyshyn:</b> Visiting Professor: University of Calgary, Dale Birdsall Lecturer, Dec 2015</p> <p><b>Oleh Antonyshyn:</b> Visiting Professor: University of Alberta, Edmonton, April 2016</p> <p><b>Brett Beber:</b> Co-chair at the Annual Toronto Breast Symposium in April 2016.</p> <p><b>Greg Borschel:</b> Visiting Professor. Facial Paralysis in Children. University of Michigan. Ann Arbor, Michigan, United States. 2016 Apr 21</p> <p><b>Greg Borschel:</b> Visiting Professor. Corneal Neurotization: A Peripheral Nerve Surgical Approach to Treating Blindness. University of Michigan. Ann Arbor, Michigan, United States. 2016 Apr 21</p> <p><b>Greg Borschel:</b> Visiting Professor. Cadaver Head Demonstration; Techniques in Facial Palsy. University of Michigan. Ann Arbor, Michigan, United States. 2016 Apr 21</p> <p><b>Greg Borschel:</b> Visiting Professor. Controlled Release of Neurotrophic factors to Enhance Nerve Regeneration and Beyond. University of Michigan. Ann Arbor, Michigan, United States. 2016 Apr 21</p>
<b>Other Research and Professional Activities</b>	<p><a href="#">Research Activities &gt; Other Research and Professional Activities</a></p>	
2015 Dec - present	<p><b>Co-Investigator.</b> Type: Research Project. Peripheral Nerve Injury Repair - Wait Times in Ontario. Hand Program, Toronto Western Hospital, Toronto, Ontario, Canada. Collaborators: Christine Novak Heather Baltzer. <i>5 year retrospective review of wait times for peripheral nerve repair following acute injury in Ontario.</i></p>	<p><b>Mitch Brown:</b> American Society of Plastic Surgical Nurses, Boston, MA, Oct 17, 2015. Advocacy in surgery - Breast Reconstruction</p>
2015 Dec - present	<p><b>Co-Investigator.</b> Type: Research Project.</p>	



Awareness Day.

**Mitch Brown:** American Society of Plastic Surgeons Annual Meeting, Boston, MA, Oct 18, 2015. Choices in alloplastic breast reconstruction: A point counterpoint discussion – round vs. shaped and DTI vs. two-stage.

**Mitch Brown:** American Society of Plastic Surgeons Annual Meeting, Boston, MA, Oct 18, 2015. Choices in alloplastic breast reconstruction: A point counterpoint discussion – selection of internal support matrix.

**Mitch Brown:** Florida Society of Plastic Surgeons Annual Meeting, Boca Raton, Florida, Dec 4, 2015. Implant selection in aesthetic breast surgery.

**Mitch Brown:** Florida Society of Plastic Surgeons Annual Meeting, Boca Raton, Florida, Dec 5, 2015. Young Plastics Surgeons Breakfast.

**Mitch Brown:** Florida Society of Plastic Surgeons Annual Meeting, Boca Raton, Florida, Dec 6, 2015. Prevention and managements of complications.

**Mitch Brown:** MedCan Clinic, Toronto, ON, Jan 13, 2016. Current state of breast reconstruction in Canada.

**Mitch Brown:** Southeastern Society of Plastic and Reconstructive Surgeons, Atlanta, Georgia, Jan 22, 2016. Live Surgery Demonstration: Revision breast augmentation and mastopexy.

**Mitch Brown:** Southeastern Society of Plastic and Reconstructive Surgeons, Atlanta, Georgia, Jan 22, 2016. Nipple sparing mastectomy and direct to implant reconstruction.

**Mitch Brown:** Southeastern Society of Plastic and Reconstructive Surgeons, Atlanta, Georgia, Jan 23, 2016. Fat grafting with external expansion – Lessons learned.

**Mitch Brown:** Southeastern Society of Plastic and Reconstructive Surgeons, Atlanta, Georgia, Jan 23, 2016. Managing capsular contracture with site change.

**Mitch Brown:** National Society of Plastic Surgeons, Ottawa, ON, Mar 7, 2016. The tuberous breast deformity and lipofilling of the breast.

**Mitch Brown:** Barcelona Breast Meeting, Barcelona, Spain, Mar 17, 2016. Why you should use ADM in breast reconstruction.

**Mitch Brown:** Barcelona Breast Meeting, Barcelona, Spain, Mar 18, 2016. Disasters of the masters; solving complex problems.

**Mitch Brown:** Barcelona Breast Meeting, Barcelona, Spain, Mar 18, 2016. Solving problems in revision mastopexy and breast reduction.

**Mitch Brown:** Barcelona Breast Meeting, Barcelona, Spain, Mar 18, 2016. Solving problems in secondary implant surgery.

**Mitch Brown:** American Society for Aesthetic Plastic Surgery Annual Meeting, Las Vegas, NV, Apr 3, 2016. Demystifying the plastic surgery application process: A Canadian perspective.

**Mitch Brown:** American Society for Aesthetic Plastic Surgery Annual Meeting, Las Vegas, NV, Apr 5, 2016. Instructional Course – Moderator.

**Mitch Brown:** American Society for Aesthetic Plastic Surgery Annual Meeting, Las Vegas, NV, Apr 5, 2016. Panel Participant: Aesthetic breast reconstruction.

**Robert Cartotto:** Visiting Professor. Department of Surgery, University of California at Irvine School of Medicine. Irvine, California, United States. Department of Surgery Grand Rounds Lecture: The Conundrum of Crystalloids and Colloids in Acute Burn Resuscitation.

**Howard Clarke:**  
*Invited Lectures and Presentations*

- 2016 May 7 What I have learned over three decades of paediatric hand surgery. Pediatric Hand Study Group, Toronto, Ontario, Canada.
- 2016 Apr 28 Obstetrical brachial plexus palsy. Department of Paediatrics Grand Rounds, Royal Victoria Regional Health Centre, Barrie, Ontario, Canada.
- 2016 Apr 7 Obstetrical brachial plexus palsy and its sequelae. Orthopaedics Grand Rounds, University of Alabama at Birmingham, Birmingham, Alabama, United States.
- 2015 Nov 25 Pediatric Plastic Surgery. U of T Medical Student Career Night, University of Toronto, Toronto, Ontario, Canada.

*Presented Abstracts*

- 2016 Feb 27 Postoperative pain in infants with obstetrical brachial plexus palsy following primary microsurgical reconstruction. XIX Narakas Symposium, Barcelona, Spain. Presenter(s): Davidge K, Lee WJ, Ho ES, Stephens D, Clarke HM.
- 2016 Feb 27 Treatment of elbow flexion contractures with serial casting and splinting: Perspectives of young adults with obstetrical brachial plexus palsy. XIX Narakas Symposium, Barcelona, Spain. Presenter(s): Ho ES, Sheikh R, Zarnett O, Copeland A, Clarke HM.
- 2016 Feb 27 Pain in school-aged children with obstetrical brachial plexus palsy following primary microsurgical reconstruction. XIX Narakas Symposium, Barcelona, Spain. Presenter(s): Ho ES, Curtis CG, Clarke HM.

**David Fisher:** 2016 Mar. Unilateral cleft lip repair, history and current practice. Stanford School of Medicine, Stanford, California, United States. March 1, 2016.

**Christopher Forrest:**  
*Invited Lectures and Presentations*

- 2015 Sep 23 **Presenter.** Development of a High-Fidelity Pediatric Cleft Palate Phantom and Feasibility Testing Using a da Vinci Surgical System. Hamlyn Symposium on Medical Robotics. London, City of, United Kingdom. Presenter(s): Podolsky D, Fisher D, Wong K, Looi T, Patel R, Drake J, **Forrest C.**
- 2015 Sep **Presenter.** The application of surgical robotics in cleft and craniofacial care. The 16th Congress of the International Society of Craniofacial

- 2015 Aug 7 **Surgery.** Tôkyô [Tokyo], Japan. Presenter(s): Podolsky DJ, Fisher DV, Wong KK, Looi T, Drake JM, **Forrest CR.**  
**Invited Lecturer.** Craniosynostosis and cranial vault remodeling. ASCFS/ASMA Boot Camp: Essential Training for Craniofacial Fellows, Barrows Neurological Institute. Pheonix, Arizona, United States. Presenter(s): **Forrest CR.**
- 2015 Jun 22 **Presenter.** Development of a high-fidelity pediatric cleft palate phantom and feasibility testing using a da Vinci surgical system. The Royal Geographic Society, The Hamlyn Symposium on Medical Robotics. London, City of, United Kingdom. Presenter(s): Podolsky D, Fisher D, Wong K, Looi T, Patel R, Drake J, **Forrest CR.**
- 2015 Jun 5 **Presenter.** Development of a robotic approach to cleft palate repair. Canadian Society of Plastic Surgeons (CSPS). Victoria, British Columbia, Canada. Presenter(s): podolsky, Fisher DM, Wong KW, Drake JM, **Forrest CR.**

### Presented Abstracts

- 2015 Jun Comparison of custom CAD/CAM Polyetheretherketone versus Titanium implants for craniofacial reconstruction in the pediatric population. Computer Assisted Radiology and Surgery Meeting. Barcelona, Spain. Presenter(s): Nguyen PD, Smith DM, **Forrest CR**, Phillips JH.
- 2015 Jun Optimization of cranio-orbital reshaping: Application of a mathematical model. Computer Assisted Radiology and Surgery Meeting. Barcelona, Spain. Presenter(s): Saber N, Drake J, **Forrest C**, Linhares A, Koenemann J, Fukasawa R, Phillips J.

### Peer Reviewed Scientific Presentations

- 2016 Jun 18 **Presenter.** Posterior Vault Distraction in multi-Suture Craniosynostosis: A Radiologic Morphometric Assessment. 70th Annual Meeting of the Canadian Society of Plastic Surgeons. Ottawa, Ontario, Canada. Presenter(s): Ching JA, Clausen A, **Forrest CR.**
- 2016 Jun 18 **Presenter.** Nasal Monobloc Osteotomy for Residual Nasal and Orbital Asymmetry of Unicoronal Synostosis. 70th Annual Meeting of the Canadian Society of Plastic Surgeons. Ottawa, Ontario, Canada. Presenter(s): Ching JA, **Forrest CR.**
- 2016 Jun 16 **Presenter.** The feasibility of DaVinci Robotic Cleft Palate Repair and Development of a novel Robotic Instrument for Trans-oral Robotic Surgery. 70th Annual Meeting of the Canadian Society of Plastic Surgeons. Ottawa, Ontario, Canada. Presenter(s): Podolsky D, Fisher D, Wong K, Looi T, Drake J, **Forrest CR.**

### Other Invited Lectures and Presentations

- 2015 Aug 8 **Invited Lecturer.** LeFort I. ASCFS/ASMS Boot Camp: Essential Training for Craniofacial Fellows,

**Stefan Hofer** Visiting Professor. Sarcoma Reconstruction. Mayo

Clinic. Scottsdale, Arizona, United States. 2016 Mar 14

**Stefan Hofer** Visiting Professor. Improving aesthetic outcomes in autologous tissue breast reconstruction. Mayo Clinic. Scottsdale, Arizona, United States. 2016 Mar 14

**Marc Jeschke:** American Burn Association Annual Meeting, May 2-6, 2016 Las Vegas

### Podium Presentations

- Ventilating the Burn Patient with Acute Respiratory Distress Syndrome (ARDS): ARDSNet vs. What Actually Happens Y. Ching, MD, D. Wood, RRT, L. Tremblay, MD, FRCSC, R. Cartotto, MD, FRCSC.
- Use of a Temporary Biosynthetic Skin Substitute (TBSS) in Stevens Johnson – Toxic Epidermal Necrolysis Syndrome (SJS-TEN). A. Rogers, MBBCh, MMed, E. Blackport, RN, R. Cartotto, MD, FRCSC
- Constructing Skin Graft Seams in Burn Patients: A Prospective Randomized Double Blinded Study. K. Isaac, MD, N. Umraw, OT, R. Cartotto, MD, FRCSC
- Assessing Primary Care Trainee Comfort in the Diagnosis and Management of a Thermally Injured Patient S. Q. Vrouwe, MD, S. Shahrokhi, MD, FRCSC
- One Year Later: A Population-Based Analysis of Urgent Readmissions After Major Burn Injury. S. A. Mason, MD, A. Gonzalez, MSc, A. B. Nathens, MD, PhD, M. G. Jeschke, MD, PhD
- The Influence of Operative Time and Hypothermia in Burn Surgery N. Ziolkowski, MD, A. Rogers, MBBCh, MMed, S. Shahrokhi, MD, FRCSC, W. Xiong, MSc, B. Hong, BHSc, S. Patel, B. Trull, MD, M. Burnett, BSc(Hons), M. Jeschke, MD, PhD

### Invited Presentations

- Post Grad Course: Infections in Burns: Pathophysiology, Diagnostics, and Prevention. May 4 2016  
Marc G. Jeschke, MD, PhD, FACS, FCCM, FRCS(C)
- Resuscitation: has the pendulum swung back?  
Marc G. Jeschke, MD, PhD, FACS, FCCM, FRCS(C)

### Posters

- Comparison of Novel Predictors of Burn Sepsis Versus the American Burn Association Sepsis Criteria. J. Yan, BSc(Hons), M. A. Burnett, BSc(Hons), J. Bian, BSc(Hons), W. Xiong, MSc, S. Shahrokhi, MD, FRCSC, M. G. Jeschke, MD, PhD
- A Fifteen-Year Retrospective Review of Clinical and Psychosocial Outcomes Following Electrical Injuries N. Radulovic, BSc(Hons), M. A. Burnett, BSc(Hons), M. G. Jeschke, MD, PhD
- A Review of 26 Cases of Frostbite in an ABA Verified Burns Center A. McKenna, MBBCh, MSc, FRCS, FRCS(Plast), M. Burnett, BSc(Hons), A. Rogers, MBBCh, MMed, M. Jeschke, MD, PhD
- Morbidity and Mortality Post-Burn Injury S. Rehou, MS, K.



Smith, RN, MHA, M. Jeschke, MD, PhD

G. Jeschke

5. One Trip Too Many: The Undertriage of Burn-Injured Patients Despite Burn Triage Guidelines E. Sacoransky, S. Mason, MD, J. Byrne, MD, M. Jeschke, MD, PhD, R. Verbeek, MD, R. Olynyk, EMT-P, A. Nathens, MD, PhD
6. Post-Mortem Findings Associated with Inhalation Injury S. Rehou, MS, J. Banfield, RN, M. Jeschke, MD, PhD
7. Temporal Trends in Mortality and Regionalization of Burn Care: A Population-Based Analysis S. A. Mason, MD, A. Gonzalez, MSc, A. B. Nathens, MD, PhD, M. G. Jeschke, MD, PhD
8. A Retrospective Review of Chemical Burns Admitted to a Regional Burn Centre from 2007-2014 A. Izadpanah, MD, S. Shahrokhi, MD, FRCSC, M. A. Burnett, BSc(Hons), K. E. Smith, RN, MHA, M. G. Jeschke, MD, PhD
9. The Timeline of Hypoglycemia and Morbidities in Burn Patients V. Au, BSc(Hons), R. Pinto, MS, M. A. Burnett, BSc(Hons), K. Smith, RN, MHA, M. G. Jeschke, MD, PhD
10. A Depleted CD90 Positive Mesenchymal Stem Cell Population Contributes to Deficient Wound Healing in the Elderly S. Amini Nik, MD, PhD, A. Abdullahi, MSc, R. Yao, BSc(Hons), N. Yu, BSc(Hons), C. Belo, MSc, M. Jeschke, MD, PhD
11. Cellularized Bilayer Pullulan-Gelatin Hydrogel for Skin Regeneration S. Amini Nik, MD, PhD, M. Nicholas, BSc(Hons), M. Jeschke, MD, PhD
12. Burn Size Estimation and Fluid Resuscitation: A 7 Year Review of Admissions to a Regional Burn Unit R. A. Austin, MD, S. Schlagintweit, MD, M. G. Jeschke, MD, PhD, S. Shahrokhi, MD, FRCSC
13. Surgical Management of Soft Tissue Necrosis Due to Levamisole Related Vasculitis G. McEvenue, MD, M. Brichacek, BSc, MD, S. Logsetty, MD, S. Shahrokhi, MD, FRCSC
4. Thermal Injury Induces a Biphasic Response in the Skeletal Muscles of Mice. Saeid Amini-Nik, Yusef Yousef, Ahmed Shah, Ali-Reza Sadri, Pantea Samei, Andrea Datu, Marc Jeschke, MD, PhD
5. B-Catenin Directs the Phenotype of Myeloid Lineage Cells During Fibrosis in Mice. Ali-Reza Sadri, Michael Li Diao, Cassandra Belo, Saeid Amini Nik, and Marc G. Jeschke
6. Plasma mtDNA levels parallel inflammatory status and may mediate IL-1 production by peripheral blood mononuclear cells (PBMCs) post burn-injury. Parousis, Alexa Christopher Auger, Mile Stanojic, Abdikarim Abdullahi, and Marc G. Jeschke
7. The effect of metformin on burn and burn + infection in rodents. Christopher Auger, Thibacg Sivayoganathan, Mile Stanojic, Abdikarim Abdullahi, David Pastouris, and Marc G. Jeschke.
8. Location, Location, Location: The IL-6 Cytokine and Browning of White Adipose Tissue Post Burn Injury. Abdikarim Abdullahi, Mile Stanojic, Peter Chen, Ali Sadri, Marc G. Jeschke.
9. The Septic Predictor Index (SPI): a novel platform to predict sepsis in thermally-injured patients Mile Stanojic, Peter Chen, Marc G. Jeschke
10. Moving Beyond "Good Fat, Bad Fat": Comparative Lipidomic Analysis to Predict Outcome Post Burn Injury. Abdikarim Abdullahi, Peter Qi, David Patsouris, Mile Stanojic, Marc G. Jeschke.

## American Surgical Association Chicago April 2016

Marc G Jeschke. Glucose control in severely burned patients using metformin- an interim safety and efficacy analysis of a Phase II randomized controlled trial. American Surgical Association. Chicago, Illinois, United States.

Canadian Society of Plastic Surgery meeting. Victoria, British Columbia. **N Ziolkowski, A Rogers, M Jeschke.** Systematic review of unintentional intra-operative hypothermia in Plastic Surgery.

## Shock Society Austin Texas June 2016

1. Acellular Gelatinous Material of Human Umbilical Cord Enhances Wound Healing: A Candidate Remedy For Deficient Wound Healing. Nazihah Bakhtyar, Marc G. Jeschke, Laurence Mainville, Elaine Herer, Saeid Amini Nik
2. Melanocyte precursor-like cells in the umbilical cord. Reinhard Dolp, Byron Chan, Marc Jeschke, Saeid Amini-Nik
3. Abnormal mitochondrial fusion and fission are associated with hepatic metabolic alterations after thermal injury in obese mice. Li Diao, Ali-Reza Sadri, Hisato Konoeda, Saeid Amini-Nik, Marc

**John Semple:** Invited Speaker: Canadian Society of Plastic Surgeons Annual Business Meeting 2016, Ottawa, Ontario, Jun 14, 2016 - Jun 19, 2016. The impact of TRAM flap breast reconstruction on mortality in women with invasive breast cancer treated with mastectomy.

**John Semple:** Invited Speaker: Canadian Society of Plastic Surgeons Annual Meeting, Victoria, British Columbia, Jun 2, 2015 - Jun 6, 2015. Factors Influencing Postoperative Pain in Patients Undergoing Autologous Breast Reconstruction in an Ambulatory Setting (oral presentation).

**John Semple:** Invited Speaker: University of Guelph, International Institute for Critical Studies in Improvisation, Guelph, Ontario, Sep 16, 2015. Improvisation in jazz as a model for improvisation in surgery and research.

**John Semple:** Invited Speaker: The Cancer Quality Council of Ontario, Toronto, Ontario, Nov 18, 2015. 12th Annual 2015 Signature Event, Collaborate to Activate: Empowering patients and providers for improved self-management.

**John Semple:** Invited Speaker: 7th Annual, World Congress - The Care Coordination and Technology: Leadership Summit on Hospital Readmissions, Atlanta Georgia, USA, Jan 21, 2016 - Jan 24, 2016. Leverage Mobile Technologies as a Tool in reducing Readmissions.

**John Semple:** Invited Speaker: 11th Annual Asia Pacific Travel Health Conference, Kathmandu, Nepal, Mar 2, 2016 - Mar 5, 2016. High Ozone Levels on Mount Everest: Health Implications for Sherpa Communities and Mountaineers.

**John Semple:** Invited Speaker: The American Society of Plastic Surgeons (ASAPS) Meeting 2016, Las Vegas, Nevada, Apr 2, 2016 – Apr 7, 2016. Technology in Plastic Surgery: New Apps that have the Potential to Change Your Practice.

**John Semple:** Invited Speaker: Post Mastectomy Breast Reconstruction National Consortium Meeting, Toronto, Ontario, Apr 15, 2016. Talk as Chair in Surgical Breast Cancer Research for the Canadian Breast Cancer Foundation – Ontario Chapter.

**John Semple:** Invited Speaker: Women's College Hospital – Medical Advisory Committee Meeting, Toronto, Ontario, May 3, 2016. Quality Improvement in Ambulatory Surgery.

**John Semple:** Invited Speaker: Women's College Hospital – A Biannual Conference on Hereditary Breast & Ovarian Cancer, Toronto, Ontario, May 27, 2016. Preventive mastectomy for the prevention of breast cancer.

**John Semple:** Invited Speaker: Armstrong K, Coyte P, Semple J: The Effect of Mobile App Follow-up Care on the Number of In-person Visits Following Ambulatory Surgery: A Randomized Control Trial. (Poster Presentation) e-Health Conference, Toronto, Ontario, May 31, 2015 – Jun 3, 2015.

Metcalf K, Cil T, **Semple JL**, Dong L, Li X, Narod S, Pal T: The Effect of Type of Prophylactic Mastectomy on Long-Term Psychosocial functioning and Perceived Breast Cancer Risk in Women with Bilateral Prophylactic Mastectomy. The American Society of Breast Surgeons Meeting, 2015

**Ron Zuker:** Visiting Professor: “The Paul Tessier Lecture” 60th National French Congress of Plastic Surgery. SOFCPRE, Paris France, November 2015

**Ron Zuker:** Visiting Professor: Ichilov Hospital, Tel Aviv, Israel, November 2015

**Ron Zuker:** Visiting Professor: University of Mexico, October 2015

**Ron Zuker:** Special Guest Lecturer: Mexican Moebius Syndrome Foundation, October 2015.

## Continuing Medical Education

**5th Annual Breast Reconstruction Awareness Day (BRA Day)** was held on October 21, 2015, at the Centre for the Arts, St. Michael's College School. The event was co-hosted by the Willow Breast Cancer Support Group. Breast cancer survivors, patients and medical experts gathered for this event to learn more about breast reconstructive surgery post-mastectomy. A group of five panelists, including Women's College Hospital's Dr. Mitchell Brown, founder of BRA Day, Dr. John Semple, WCH's chief of surgery, and Dr. Brett Beber, each took the stage to discuss various topics surrounding breast reconstruction. The audience was also given the opportunity to listen firsthand to two breast cancer survivors who both shared their remarkable stories. The event also included a “show-and-tell” lounge, where a group of 15 courageous volunteers bared their chests to attendees in order to give them a firsthand perspective on what breast reconstruction looks and feels like.

BRA Day, which formed a formal partnership this year with Willow Breast Cancer Support Canada, is now internationally recognized in almost 30 countries and is open to the public each year.

**1st Medical Student Career Night** held on November 25th, 2015 with an attendance of just under 100 medical students at the Peter Gilgan Centre for Research and Learning designed to showcase the breadth and depth of Plastic and Reconstructive Surgery.

**1<sup>st</sup> Career Night 2015:** Drs. Frank Lista, Wayne Carmen, John Semple, Mary Helen Mahoney, Michael Kreidstein, Ron Zuker and Tim Sproule generously shared their wisdom and thoughts on how to be successful in Plastic and Reconstructive Surgery held on May 20, 2015 at the University Club of Toronto.

**The 16<sup>th</sup> Annual Toronto Breast Symposium** was held on April 14, 2016 at the King Edward Hotel. Congratulations to Chair Dr. Mitch Brown and Co-Chairs Drs. Brett Beber and Kyle Wanzel for putting on a spectacular program. Over 190 people were registered for this event which included visiting guests **Dr. Jim Nannoum** from Atlanta, Georgia as the **J. Michael Drever lecturer** as well as **Dr. Ed Buchel** from Winnipeg and **Dr. Brad Calobrace** from Louisville, Kentucky. The meeting was a great success and congratulations to Mitch, Brett, and Kyle for continued success in the future.

**The 46th Annual Aesthetic Plastic Surgery Symposium** was held on April 15 – 16, 2016. Congratulations to Course Director and Lecturer Dr. Jamil Ahmad and Course Co-Chairs Drs. Tom Bell and Frank Lista. This year the invited faculty included **Dr. M. Bradley Calobrace**, from Louisville Kentucky, as the **University Aesthetic Lecturer**; **Dr. Barry E. DiBernardo**, from Montclair, New Jersey as the **University of Toronto Visiting Professor**; **Dr. David A. Hidalgo** from Manhattan, New York as the **Walter J. Peters Lecturer**; **Dr. Glenn W. Jelks** as the **W.R.N. Lindsay Lecturer**; and **Dr. Akin Yucel** from Istanbul, Turkey. Over 240 people were registered for this conference which was held at the King Edward Hotel and it covered another scope of aesthetic plastic surgery from the anatomical basis of blepharoplasty to perils in creating a comprehensive plastic surgery practice.

## 1st Lindsay Research Competition 2016

On behalf of the Division of Plastic and Reconstructive Surgery at the Hospital for Sick Children, I would like to take this opportunity to thank Drs. Ali Ghanem, Hélène Retrouvey, Natalia Ziolkowski, Jana Dengler, Joseph Catapano, Pundrique Sharma, Dale Podolosky and Jessica Ching for a high-quality series of presentations at the Lindsay Research Competition on Wednesday, June 22nd, 2016. The judges were impressed by all of the presentations in terms of quality, content and presentation. Congratulations to Dr. Joseph Catapano for his work “Corneal neurotization: Investigating a surgical solution for neurotrophic keratitis” (Supervisor: Dr. Greg Borschel). Dr. Lindsay would have been most proud of the accomplishments of the group and to see that surgical research is alive and thriving at SickKids. Extra-special thanks to Emily Ho, OT, our divisional research coordinator for organizing the event.

## KLS Martin Craniofacial Lectureship

On February 25th, 2016, the division was fortunate to host Yale faculty Dr. Derek Steinbacher who delivered a terrific Professor's Rounds entitled “Aesthetic considerations in orthognathic surgery” which blended the best of current technology, CAD-CAM modeling, cone-beam CT imaging and surgical planning methodologies. Dr. Steinbacher obtained his MD from Harvard Medical School and his DMD from the University of Pennsylvania, both with honors. He received fellowship training in craniofacial surgery from Children's Hospital of Philadelphia, completed the plastic and reconstructive surgery program at Johns Hopkins Hospital, and trained in oral/maxillofacial and general surgery



at Massachusetts General Hospital. Derek is Associate Professor of Surgery, Chief of Oral and Maxillofacial Surgery and Chief of Dentistry and Director of Craniofacial Surgery at Yale.

On June 10th, 2016 the second KLS Martin Lectureship was given by Dr. Amir Dorafshar. Amir is an Associate Professor of Plastic and Reconstructive Surgery and Neurological Surgery at the Johns Hopkins University School of Medicine and Clinical Co-Director of the Face Transplant Program with a remarkable CV for someone who started his academic career at John's Hopkins in 2010 (103 peer reviewed scientific papers and 12 book chapters to his name) and was an integral member of the Baltimore team that performed the first full face transplant in 2012 and is currently editing a textbook on Facial Trauma. He gave an inspiring lecture entitled "Craniofacial Surgery: Can we survive the future?"

Many thanks to KLS-Martin for sponsoring these visits.

### UoT GTA Lecturership Series

In an attempt to bring academic and community partners together in a combined social and educational setting, we had held a series of dinner lectures (started in 2014-2015) and these lectures have appealed greatly to our PRS community. These evenings have been held centrally at The University Club with well-known experts in the field to share their expertise in an informal and enjoyable setting. The first dinner lecture of the 2015-2016 academic year was arranged on September 24, 2015 with **Dr. Jaume Masià**, Chief of Plastic Surgery Department at Hospital de la Santa Creu i Sant Pau-Hospital del Mar in Barcelona, Spain and a well-known icon in the microsurgery world. He has incredible expertise in supermicrosurgery (involving vessel anastomosis 0.3 to 0.8 mm diameter) and a highly engaging speaker. He has published a book on lymphedema surgery (with former UofT Chair Dr. Peter Neligan!) **Mr. Jian Farhadi** was the second lecturer that evening and is a fully accredited Consultant Plastic Surgeon and the Director of the Department of Plastic & Reconstructive Surgery at Guy's and St. Thomas' Hospital in London. He is a specialist in reconstructive and aesthetic breast surgery and a reader at the Faculty of Medicine at the University of Basel in Switzerland and manages a dual practice in London and Switzerland. The topics of discussion included current concepts in breast reconstruction, super-microsurgery, lymphedema surgery and the role of an oncoplastic surgical approach to the management of breast reconstruction. The talks were passionate and engaging. Thanks to Stefan Hofer and Mitch Brown for coordinating these visits!

The second dinner was held on February 3, 2016 with visiting speaker Dr. Nicolas Guay and delivered a terrific lecture "Improving availability of breast reconstruction flap surgery through efficiency". Dr. Nicholas A. Guay was appointed Corporate Chief of Surgery and Medical Director of Surgery at the William Osler Health System in January 2014 after starting his career in Ottawa where he developed a Breast Cancer Reconstruction Team. Dr. Guay has numerous national and international presentations discussing Single Stage Autologous and Implant Breast Reconstruction, Efficiency in the Operating Room and, Surgical Education. Dr. Guay is the creator and lead physician behind a national breast reconstruction patient education website, [www.breastreconstructioncanada.ca](http://www.breastreconstructioncanada.ca)

The third talk for the academic year was held on April 7, 2016 and featured Dr. Howard N. Langstein, M.D., who is the Chief of Plastic and Reconstructive Surgery at the University of Rochester Medical Center. Howard presented a remarkable lecture entitled "Leonardo DaVinci - Artist and Engineer and Inspiration for Plastic Surgeons" drawing on the inspirations of one of the most innovative and original renaissance artists and applying these principles to what we do on a day to day basis in

Plastic and Reconstructive Surgery.

### 2016 Hoyle Campbell Visiting Professor

This year's Hoyle Campbell Visiting Professor event was held over a 2 day period: Feb. 18-19, 2016 and was held at the Peter Gilgan Learning Centre. The invited visiting professor was Dr. Gary Burget, Clinical Associate Professor, University of Chicago. Dr. Burget is regarded for his "sub-unit" approach to nasal reconstruction and very generously donated copies of his most recent book "Aesthetic reconstruction of the child's nose" to all of the residents. He provided some interesting insights into nasal reconstruction during his lecture.

### 14th Annual Ralph T. Manktelow Hand and Microsurgery Lectureship

Manktelow Day and the Hand and Upper Extremity Update were held on Oct 16 and 17, 2015. This was the first year these two events were combined into a two-day offering. The primary topics covered included carpal bone fractures, Dupuytren's Disease, and distal radius fractures. The meeting was successful with 92 attendees at both days representing surgeons and therapists from as far away as Winnipeg, Ottawa, and Thunder Bay. Our faculty included members of the Plastics and Orthopaedics Divisions and Hand Therapists. Our guest speaker this year was Dr. Amit Gupta from Louisville KY, who gave the "Manktelow Lecture" on scaphoid fractures. Congratulations to Dr. Steve McCabe for organizing this event.

### 12th Annual Lindsay-Thomson Symposium in Paediatric Plastic Surgery

In 2003, the first Lindsay-Thomson Pediatric Plastic Surgery Symposium was held at the Hospital for Sick Children. This CME event was designed to acknowledge the contributions and achievements of our mentors and teachers, Drs. W. K. Lindsay and H. G. Thomson who collectively accumulated 90 years of clinical practice at the Hospital for Sick Children, by showcasing what is going on in the division.

This year, we did something a little more special by using the Twelfth Annual Symposium to recognize the career and accomplishments of Dr. Ron Zuker. In June 2015, after 37 years, Ron retired from active clinical practice but continues to remain active and viable with select participation in cases and involvement in SickKids International and global outreach. His contributions in the arenas of cleft surgery, microsurgery, separation of conjoined twins, congenital hand surgery, composite vascularized allotransplantation and free-functional muscle transfer most notably in restoration of a smile are unparalleled and he has had a career to be envied. So we invited 22 of his former fellows and best friends from all points of the globe to come and speak (Israel, Ireland, Switzerland, England, Australia, Taiwan, the US and Canada) – a highlight included this year's Vale Lecturer Professor Fu-Chan Wei from Chang Gung Memorial Hospital in Taipei. Professor Wei was a former fellow of Drs. Zuker and Manktelow in 1979 and celebrated his continuing relationship with Toronto Plastic and Reconstructive Surgery with his lecture "The Blooming Plastic and Reconstructive Surgery Center at Chang Gung - The Fruit of Toronto's Contribution".

Thanks to the speakers who all put their best feet forward in participating in this remarkable event.

Dr. Ralph Manktelow (Toronto): A Bit of Toronto Microsurgery History

Mr. Adel Fattah (Liverpool, UK): Facial Nerve Grading Scales: Which

is Best?

Dr. William M. Kuzon, Jr. (Ann Arbor, MI): What Ron Zuker Neglected to Teach Me about Facial Reanimation

Dr. Richard James Redett, III (Baltimore, MD): Zuker's Point and Other Tidbits and Wisdom I learned in Toronto

Dr. Greg Borschel (Toronto): The Cross Face Nerve Graft: New strategies to improve effectiveness

Dr. Eyal Gur (Tel Aviv, Israel): What Did We Learn from Our Masters and Where Did We Take It To - Innovation in Facial Paralysis Reconstruction

Dr. E. Patricia Egerszegi (Montreal): Hand Function is a Beautiful Thing - Reconstruction of Pinch and Grasp in the Paediatric Patient

Dr. Mike Klebuc (Houston, TX): Collaboration & Innovation: Essential Elements in Reconstructive Surgery

Mr. Sean Carroll (Dublin, Ireland): Use of Stem cells in the management of CMC joint OA

Dr. Alison Snyder-Warrick (St. Louis, MO): Expanding Paediatric Microsurgery in the Show-Me State: A Gateway for Progress

Dr. Peter Neligan (Seattle, WA): Advances in the Surgical Treatment of Lymphedema

Mr. Stuart Bade (Brisbane, Australia): Microsurgical Hepatic Artery Reconstruction in Paediatric Liver Transplantation: The Brisbane Experience

Dr. Richard Korentager (Kansas, KA): Resident Evaluation and Feedback: A novel app for use with smartphones, tablets and computers

Dr. David Khechoyan (Houston, TX): Measuring Craniosynostosis Outcomes in 3D

Ms. Norma Timoney (London, UK): An Approach to Managing Cleft and Non-cleft Velopharyngeal Insufficiency

Dr. Cindy Verchere (Vancouver, BC): Pediatric Melanoma: A 35 year Population-Based Review

Dr. Giorgio La Scala (Geneva, Switzerland): A Skin-Sparing Approach to Necrotizing Fasciitis

Professor Fu-Chan Wei (Taipei, Taiwan): The Blooming Plastic and Reconstructive Surgery Center at Chang Gung - The Fruit of Toronto's Contribution

Dr. Joel Fish (Toronto): Back to the Future: Burns past and present

Dr. Kristen Davidge (Toronto): Pain Following Surgical Treatment for OBPP

Dr. David Fisher (Toronto): Measure for Measure

Dr. Karen Wong Riff (Toronto): Measuring Global Outcomes in Cleft Care

Dr. Ron Zuker (Toronto): Collaboration - A Win Win for All

## Lifetime Achievement Award

**Nancy McKee:** The career of Dr. Nancy McKee was celebrated and acknowledged by awarding her the Chair's Lifetime Achievement Award. In June 2016, Nancy retired after a 37-year career at Mount Sinai Hospital. Nancy graduated from the University of Toronto Medical School in 1970 and after doing an internship at the Royal Victoria Hospital in Montreal she started her residency in Plastic Surgery at the University of Toronto under the tutelage of Dr. W.K. Lindsay. Nancy obtained her fellowship in 1976 and then did a prestigious 4-year Medical Research Council of Canada Research Fellowship under the supervision of Dr. Ralph Manktelow. Her interests in research and the pursuit of academia started early and remained an undying passion with

Nancy. In that era, the concept of the Surgeon-Scientist was in its embryonic state and Nancy's career trajectory is a testament to its importance in academic surgery.

Nancy started her staff appointment as the first divisional female member at the University of Toronto in 1979 and became a full Professor in 1993. In her typically idiosyncratic and creative manner, she has maintained several unique staff cross-appointments in both the University of Toronto School of Physical and Health Education (since 1988) and the Department of Kinesiology at the University of Waterloo (since 1997). In this way, she has been able to expand the horizons of our specialty and develop collaborative and fruitful relationships with groups that don't routinely cross the path of the Plastic and Reconstructive surgeon. Most notably she has been integral in the success of several Surgeon-Scientist trainees including Dr. Bill Kuzon, Dr. Howard Clarke, and Dr. Joel Fish all of whom have risen to high levels of prominence in the academic arena of Plastic and Reconstructive Surgery.

Nancy's contributions to the research profile of Plastic and Reconstructive Surgery cannot be overstated. At a local level, for years she continued to run research supper clubs at her house allowing opportunities for the research community here at the University of Toronto to get together in a collaborative and collegial fashion. Nancy has been a lifelong supporter of the Plastic Surgery Research Council and brought this remarkable meeting to Toronto in 1992 where she was the Chair.

Generous, collaborative, broad-minded, idiosyncratic, sensitive, innovative, loyal and dedicated. These are terms that come to mind when one reflects on Dr. Nancy McKee and her career. It is safe to say that her investments in the field of Plastic and Reconstructive Surgery have enriched and fostered the specialty. Congratulations to Nancy on a remarkable and rich career and thank-you for all that you have done for our division.

## Graduation Gala Event

The highlight of the academic year is the Graduation Gala Dinner that celebrates the successes of the graduating class and recognizes some important contributors within the division. On June 23rd, 2016 the Rosewater Room opened its doors to celebrate all that is good within the Division of Plastic and Reconstructive Surgery at the University of Toronto and this year we had some very special guests! For the very first time, we also celebrated our esteemed alumni! We decided to celebrate those alumni graduating over a 30-year period from 1956 to 1986 as well as distinguished recent alumni. Director of Alumni Relations Dr. Ron Zuker organized the creation of a commemorative medallion (The Chairs' Medal) individually numbered making each one unique. Each medal was inscribed with a name, the year of graduation and the alphabetical order of graduation. A highlight of the medallion handout was seeing our oldest alumnus, Dr. Leslie Chasmar (graduate of 1956!) who is now 93 years young come to the podium and tell the audience about life as a resident under Dr. A. W. Farmer.

## Royal College Fellowships

**Ryan Austin** successfully passed his RCPSC fellowship examination.

**Siba Haykal** successfully passed her RCPSC fellowship examination.

**Kathryn Isaac** successfully passed her RCPSC fellowship examination

**Jennica Platt** successfully passed her RCPSC fellowship examination.

We've upgraded our technology by revitalizing our website so that we now have improved efficiencies, the benefits of which have been realized by the public as well as the division and university.



Medical students looking to arrange an elective or observership should be directed to our website's Education page. All pertinent information for electives, observerships, residency training and fellowships can be found there with clear instructions for each.

Our website enjoys an increased interest from visitors who now spend 50% more time on the website than before, and view 8% more pages per visit. 70% of our visitors are from Canada, with the rest coming from USA, UK, India, Brazil, Saudi Arabia, Australia, and other countries.

There are new improvements and projects in the works and will be launched very soon.

I hope that you will take the opportunity to explore and utilize the many aspects of this user-friendly and informative website:  
<http://www.uoftplasticsurgery.ca/> Take a look at our new webpage for the Resident Aesthetic Clinic as well:  
<http://www.uoftplasticsurgery.ca/clinic/>





## Division of Thoracic Surgery

Thomas Waddell, *Chair*

The Division of Thoracic Surgery continued its tradition of clinical, research and teaching excellence this last year. Our faculty across the University of Toronto including cross-appointees from our close collaboration with our colleagues at McMaster University received recognition for the academic efforts. Dr. Kazuhiro Yasufuku was awarded the Gustav Killian Centenary Medal at the 19th World Congress of Bronchology and Interventional Pulmonology Meeting in Florence and the University of Toronto Faculty of Medicine, Ivan Silver Innovation Award at The Faculty of Medicine's 14th Annual Education Achievement Celebration. Dr. Abdollah Behzadi was awarded the Dr. Norman Hill Award for Leadership in Education. Dr. Yaron Shargall was nominated for CCO Human Touch Award, and was also nominated for the RCPSC Mentor of the Year Award. Dr. Shaf Keshavjee was awarded the Dr. Joel Cooper Award from the Canadian Society of Transplantation and appointed as Secretary Treasurer for the American Association of Thoracic Surgery. Dr. Marc De Perrot was appointed a member of the Mesothelioma Task Force for the International Association for the Study of Lung Cancer, recognizing his growing reputation in this field.

Dr. Cypel was a Co-Principal Investigator on a CIHR grant entitled "Supervised in vivo lung perfusion strategy for treatment of cancer metastases to the lungs. Real time monitoring of chemotherapy by on-site analytical platform", continuing on from his expertise in isolated

perfusion of the lung. Dr. Yasufuku continues to grow his research program with funding from CCSRI for a project on "Ultra-minimally invasive multi-modal image guided therapeutics of lung cancer". In celebrating Pearson Day, the event that annually recognizes the clinical and laboratory research completed by trainees in our Division, we welcomed Dr. Tommy D'Amico as our Visiting Professor and Keynote Speaker. Dr. Anna Bendzsak and Dr. Tatsuya Kato were awarded Best Clinical Research Paper and Best Basic Science Research Paper honours respectively.

Yet another highly successful Endobronchial Ultrasound Training Course was followed by the internationally attended Toronto Thoracic Refresher Course was carried out in June 2016. Speakers at the Refresher Course included the highly regarded Dr. James Bond, Dr. Walter Klepetko, Dr. John D. Mitchell as well as Dr. David C. Rice who participated in both the Refresher and EBUS courses. Dr. De Perrot organized a very well received course on thromboembolic lung disease for a variety of physicians including primary care.

Lastly, we are happy to note the cross appointment of Dr. Kasia Czarnecka to the Department of Surgery, and welcomed both Dr. Laura Donahoe and Dr. Jonathan Yeung as Clinical Assistants to the Division. Dr. Colin, Schieman, a cross-appointee from our McMaster collaboration departed to returning closer to his family in Calgary.







## Division of Urology

Neil Fleshner, *Chair*

The Division of Urology has had a productive academic year. We currently span 28 geographic full time faculty as well as 3 full-time PhD scientists, spanned over 6 fully affiliated University-based hospitals. We train over 58 students including 23 residents and 35 fellows.

### Recruitment

Dr. Raj Satkunisivam has joined our faculty and is based at the Sunnybrook site.

### Academic Promotion

No promotions this year after a string of many of the past few years.

### Research Grants

The Division of Urology had a solid year in terms of peer-reviewed grant capture. The following faculty served as PI's or Co-PI's on peer-reviewed grants totaling over 6.5 million dollars:

Robert Hamilton	Keith Jarvi
Girish Kulkarni	Andrew Matthew
Bharti Bapat	Neil Fleshner
Alexandre Zlotta	Robert Nam
Laurence Klotz	

### Resident/Fellow Awards

Dr. Thomas Canil won the Harrison award as best surgical teacher at Sunnybrook.

Dr. Chris Wallis won Best Poster at this year's AUA meeting, as well as a Banting/Best

CIHR award

Dr. Douglas Cheung won a Canadian Urological Oncology Group (CUOG) award

Dr. Alaina Garbens won an American Urology Association Scholarship

Dr. Keith Lawson won a Vanier Award

We currently have five residents in the surgical scientist training program (Drs. Alaina Garbens, Mitchel Goldenberg, Keith Lawson, Madhur Nayan & Chris Wallis)

### Faculty Awards

Dr. Laurence Klotz won the Richard Williams Award from the AUA in Prostate Cancer excellence. He also continues as Chair of the World Uro-Oncology Federation. He was also appointed as editor of Journal of Urology.

Dr. Neil Fleshner continues as Chair of the Canadian Uro-Oncology Group. He has been elected to the American Association of

Genitourinary Surgeons. He is also Chair of a large Pan-Canadian Prostate Cancer metabolism network.

Dr. Ethan Grober addressed the AUA Plenary in 2016 on Infertility.

Dr. Michael Ordon completed his continuing appointment review.

Dr. Robert Hamilton completed his continuing appointment review and won the Jewett Postgraduate Teaching award.

Dr. Jason Lee has agreed to become the Residency Program Director.

Dr. Girish Kulkarni was awarded the Langer Prize at Gallie Day and successfully completed his continuing appointment review.

### Visiting Professors

Dr. Patrick Luke of London Health Sciences Centre & University was our Menkes Lecturer.

Dr. Peter Schlegel of New York-Presbyterian/Weill Cornell Medical Center, was our Robson Professor

### Site Updates

#### Hospital for Sick Children

Dr. Martin Koyle continues as site Chief at the Hospital for Sick Children. He had numerous visits as visiting speaker/professor throughout the globe. He passed his continuing appointment review as well as his degree in Health Quality Improvement. In addition he was named one of the Top Ten Reviewers for the Journal of Urology.

Dr. Darius Bagli continues his basic research in bladder diseases with projects funded by the CIHR, PSI, Kidney Foundation, AUA Foundation, and the Society for Pediatric Urology. This year he was awarded a CIHR grant for his research entitled, "Environmental Microbe-Gene Interaction: Role of Host Epigenetics in Chronic UTI". He is also supervising research fellowships with funding from the Society for Pediatric Urology and the AUA Foundation. He also serves as Deputy Chief of Surgery at Hospital for Sick Children and staff coordinator of Urology Resident Research.

Dr. Walid Farhat continued his work in tissue engineering with projects funded by The Hospital for Sick Children's Foundation and the Dean's Fund. He participated in projects funded by the Ontario Research Fund and Canadian Foundation for and the Center for Computer-Assisted Intervention and Innovation. He has been an invited speaker both within and outside of North America. He was appointed as "Best Reviewer" from Journal of Urology.

Dr. Armando Lorenzo continued his work in Clinical Epidemiology and minimally invasive pediatric surgery. He has also been critical in coordinating resident surgical skills sessions. He continued his research work in projects funded by the Hospital for Sick Children Inaugural Innovation Fund, PSI, and the Medical Council of Canada. He has been an invited speaker in Europe and North America.

## Mount Sinai Hospital

Dr. Ethan Grober continued his work on male infertility at Mount Sinai and Women's College.

His research includes his projects in infertility and education with grants from PSI Foundation, Royal College of Physicians and Surgeons of Canada, MARS Innovation, CIHR, Canadian Uro-Oncology Group and the Association for Surgical Association. He was an invited speaker in the U.S. and Canada and has been instrumental in his role as coordinator for the Urology School lecture series. He was awarded a Wightman Berris teaching award

Dr. Keith Jarvi continues in his role as site Chief. In addition he heads the Male Infertility Program and is Director of The Murray Koffler Urologic Wellness Centre (MKUWC). He was an invited speaker in the U.S. and Canada. He continued work in his work and research in Infertility with projects funded by the NIH, Ontario Institute for Cancer Research, CIHR, Canadian Uro-Oncology Group, MaRS Innovation, Canadian Cancer Society Research Institute, Institut Merieux, Canadian Uro-oncology Group, PSI, and with non-peer review grants from GSK and Pierre Fabre Medicaments

Dr. Kirk Lo continued his basic research in Infertility with a multi-year grant funded by the National Institutes of Health and in projects funded by CIHR, MaRS Innovation, Canadian Cancer Society Research Institute, Canadian Uro-oncology Group, and PSI. He is an integral part of our annual Robson Research Day. He was an invited speaker in the U.S. and Canada.

Dr. Alexandre Zlotta was invited speaker and/or Visiting Professor to Europe, Asia and South America. He continued his research with funding from Ontario Institute for Cancer Research, CIHR, Canadian Cancer Society Research Institute, and the Canadian Uro-oncology Group. This past year he made the important discovery of a prostate cancer lethal gene.

Dr Bharati Bapat continued her work in epigenetics and cancer biology in bladder and prostate cancer. She has procured large amounts of peer-reviewed funding this year and has lectured throughout the globe.

## Sunnybrook Health Sciences Centre

Dr. Lesley Carr continued her work as an investigator in an industry grant for the use of muscle stem cells in stress urinary incontinence as well as research in overactive bladder and interstitial cystitis with projects funded by Allergan, Astellas, and Pfizer. Dr. Carr is fundamental in the organization of our Journal Club seminars.

Dr. Sender Herschorn continued his clinical research in urinary incontinence, neurogenic bladder over-activity, and erectile dysfunction with projects funded by Allergan, Astellas, and Johnson and Johnson (Contura). He was invited lecturer around the globe. He also directed the 22nd annual U ofT Urology Update.

Dr. Laurence Klotz continued his research in Uro-oncology. He continues as Chair of the CURC and the World Uro-Oncology Federation (WUOF) and the International Urologic Research Society. He continued his many peer-reviewed research projects as well as initiated new work in prostate cancer with funding from NCIC, Prostate Cancer Canada, CIHR and Ferring. He was guest speaker and visiting professor in Asia, UK, Europe, South and North America. Dr Klotz won the coveted Harold Warwick prize from the Canadian Cancer Society as well as an Order of Canada.

Dr. Ron Kodama, site Chief at Sunnybrook, worked endlessly in

organizing the 11<sup>th</sup> Annual Resident Basic Science Course. In addition he again took the lead in directing the annual Urology Fair.

Dr. Robert Nam continued his work on his peer-reviewed projects. His funding is currently from NCIC and CIHR. He was an invited speaker in many places within and outside North America. He is Canadian site lead for a large NIH grant on prostate biopsy

Dr. Vasundara Venkateswaran continued her basic research in prostate cancer with funding from CIHR, Prostate Cancer Canada and Ferring. Dr. Venkateswaran continues her important role of Graduate Coordinator at the Institute of Medical Sciences.

## University Health Network (TGH/PMH)

Dr. Neil Fleshner continued as site chief at the UHN. In addition he continues his clinical and basic research in prostate cancer with many major peer-reviewed grants from CIHR, OICR, CPRFC, Canadian Cancer Society Research Institute, Prostate Cancer Canada Research Foundation, Prostate Cancer Research Foundation, NIH, and GSK. He was invited speaker at meetings in Canada, U.S., Australia, Asia and Europe. He was reappointed as the Love Chair in Prostate Cancer Prevention at the Princess Margaret Hospital.

Dr. Michael Jewett continued his clinical and research work in many peer-reviewed funded projects in Uro-Oncology. His funding sources include: CIHR, OICR, Princess Margaret Hospital Foundation, Kidney Foundation, NSERC and Pfizer. He continued as the Wyeth/CIHR Clinical Research Chair in Oncology. He has been an invited speaker on many continents.

Dr. Michael Robinette continued as the major individual contributing to the Multi-organ transplant program at the UHN, specifically in kidney transplants.

Dr. John Trachtenberg continued his active research into novel therapies for prostate cancer with grants from CIHR, PMH Foundation, Prostate Cancer Canada and NCIC. He continues his work on focal therapy in Prostate cancer

Dr. Tony Finelli continued his funded research projects in renal cancer and in men with negative biopsies for prostate cancer. Funding sources include: CIHR, Canadian Cancer Society research Institute and Pfizer. He was invited to speak across North American and Europe. He also served as chair of the 8<sup>th</sup> Annual Uro-Oncology Dialogue meeting in Niagara on The Lake. This year Tony was appointed as Head of the Division of Urology at this site.

Dr. Andrew Matthew, clinical psychologist, continued his work in outcomes after prostate cancer therapy, with the help of his peer-reviewed funding in prostate cancer survivorship. He has been invited to speak across the country.

Dr. Girish Kulkarni continues his epidemiological research in bladder and prostate cancer with peer-reviewed funding.

Dr. Robert Hamilton continues his work on statins, SNP's and prostate cancer. He was an invited speaker throughout Canada.

## University Health Network (TWH)

Dr. Magdy Hassouna continued his basic and clinical work in neurourology and neuromodulation. He has been an invited speaker in Asia, Middle East, Europe and North America.

Dr. Sidney Radomski continued his work in incontinence, overactive bladder and erectile dysfunction. He continued as the Assessor of



Educational Performance for the Department of Surgery.

Dr. Dean Elterman, in his role as surgeon-investigator completed his second year as faculty. His interests are in the spheres of men's health, incontinence and reconstructive surgery.

### St. Michael's Hospital

Dr. Kenneth Pace continued as site chief at St. Michaels Hospital. His other administrative role is as Fellowship Coordinator for the Division. He remains busy in the area of clinical epidemiology, stone disease & minimally invasive surgery.

Dr. John Honey continues in his specialty of minimally invasive surgery. He maintains his clinical research studies in lithotripsy. He has been an invited speaker in North America.

Dr. Robert Stewart carried on as the Residency Program Director, as well as Director of Undergraduate Surgical Education at St. Michael's. He remains as the principal urologist in the kidney transplantation program.

Dr. Jason Lee persisted to make strides in his work in education-based research and minimally invasive surgery. In addition he has assumed a major role in core curriculum development for undergraduate education.

Dr. Michael Ordon had a good start to his career as a surgeon-investigator. His interests include large database outcome analyses as well as percutaneous renal tumor ablation.

### Events & Awards – Robson Research Day

Dr. Ron Kodama won the Michael Jewett Postgraduate Lecture Award.

Dr. Walid Farhat won the A.W. Bruce Undergraduate Teaching Award.

Dr. Robert Sowerby won the Fellowship Teaching Award.

Drs. Jason Lee and Girish Kulkarni tied for the Faculty Postgraduate Clinical Teaching Award

Drs. Nam & Herschorn tied for the Faculty Postgraduate Surgical Teaching Award

Dr. Azik Hoffman won the Outstanding Fellow Research award.

Drs. Chris Wallis took first place for Outstanding Resident Research award.

Drs. Thomas Canil and Yonah Krakowsky tied this year for the Patrick Harty Award for Excellence in Patient Care.

Drs. Bimal Bhindi, Yonah Krakowsky and Hanmu Yan, successfully completed their Royal College exams.

### Hudson Lecture Gullane & Gentili



### Kavanagh, Hodges FDD





## Division of Vascular Surgery

Thomas Forbes, *Chair*

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### General:

The 2015/16 academic year was a busy year in the Division of Vascular Surgery, marked by continued innovation in education and research building on our position as the largest and most academically productive vascular surgery division in Canada.

### Leadership:

One of the Division's strategic directions is to continue to lead nationally and internationally and to train tomorrow's leaders. Dr. Thomas Lindsay continues as Chair of the Royal College of Physicians and Surgeons Specialty Committee in Vascular Surgery, while the Canadian Society for Vascular Surgery is aptly led by many U of T faculty. Dr. Thomas Forbes serves as the CSVS Past-President, Dr. Graham Roche-Nagle is Chair of the Research Committee, Dr. Giuseppe Papis is Chair of the Education Committee and Dr. Jonathan Cardella is Member-at-Large. Dr. Forbes continues to be Associate Editor of the Journal of Vascular Surgery. The Vascular Care Working Group of the Cardiac Care Network contributes to the coordination of care throughout Ontario, Dr. Forbes chair's this group and other participating U of T faculty include Drs. Lindsay, Andrew Dueck, K. Wayne Johnstone and Marc Pope. At UHN, Dr. Barry Rubin continues to lead the Peter Munk Cardiac Centre as Medical Director and Dr. George Oreopoulos, our Residency Program Director, was recently appointed the Director of Postgraduate Surgical Education at UHN.

### Recruitment:

In early 2015 Dr. Kerry Graybiel was recruited from McMaster University as a new clinical appointment at the Humber River Hospital.

### Promotions:

Congratulations to Dr. Graham Roche-Nagle (University Health Network) for his academic promotion to Associate Professor in the Department of Surgery at the University of Toronto. This is an important achievement and a testament to his academic productivity and leadership.

### Education:

2015 began with the Vascular Surgery Bootcamp, organized by Luis Figueroa (PGY5). After completing the Department of Surgery's common surgical skills camp at the beginning of the month, Lauren Gordon and Cale Zavitz, the Vascular Surgery residency program's new PGY1 trainees, spent two weeks in a combination of vascular surgery-specific lectures and hands-on training sessions designed to teach critical skills prior to the start of clinical residency training. Lectures included arterial and venous physiology, vascular labs, carotid disease, and aortic aneurysmal disease in order to provide the trainees with the fundamentals. Staff and residents then led them through how to perform a carotid endarterectomy, open AAA repair, femoral

embolectomy, femoral anastomosis, and SFJ dissection. Endovascular skills were also front and centre, including case-based teaching with faculty and hands-on practice with aortic and peripheral devices, wires, and catheters from three different manufacturers, including completing simulated EVARs on a computerized model. In keeping with the division's focus on educational research, trainees were evaluated throughout the camp, including a final evaluation to ensure competency to complete a carotid endarterectomy and open AAA repair under supervision. This is a program that is unique among Canadian Vascular Surgery training programs, and is one which was highly valued by both of our new trainees.

The first U of T Advanced Aortic Surgery Fellow will begin a two year clinical and research fellowship in July 2016. The Fellowship is a joint educational program of the University of Toronto's Divisions of Cardiac Surgery and Vascular Surgery and is administered by Co-Program Directors, Drs. Chris Caldarone and Thomas Forbes. The Program Committee is also comprised of cardiac and vascular surgeons from St. Michael's Hospital, Sunnybrook and UHN. The Fellowship provides specialized and advanced training in open and endovascular surgery for thoracoabdominal aortic pathologies (including aneurysms and dissections), beyond that of Cardiac Surgery and Vascular Surgery residency training. The Fellowship will take place in a multidisciplinary, multispecialty, multihospital, academic environment where the best surgical treatment (open and/or endovascular repair) is chosen for each patient.

### Research:

It was a productive year on the research and innovation side with all time high numbers of publications and levels of research funding.

The Surgeon Scientist Training Program continues to be a vital enabler for our division's academic productivity and training. In support of the future leaders and academic vascular surgeons we were extremely excited to announce the introduction of a scholarship program. This was made possible through the generous donation from the estate of Mr. Frank Goerc. These Goerc Scholarships will be awarded annually and will ensure the continued support of our SSTP residents, tomorrow's leaders in academic vascular surgery.

We were also excited to announce the winners of the inaugural Blair Foundation Vascular Surgery Innovation Fund competition. This Fund supports investigator sponsored research in vascular disease, with recipients subject to internal U of T peer review. Drs. Elisa Greco and Mark Wheatcroft were awarded these grants. Dr. Greco project was titled, "*Pulse Wave Velocity Imaging in the Assessment of Peripheral Arterial Disease*", while Dr. Wheatcroft was funded for his project titled, "*Direct visualization of carotid artery plaque and stenting using a novel scanning fiber angioscope*".

The highlight of our academic year was our annual Research Day that was held in early June 2016 at the University Club of Toronto the day after our Resident & Fellow Graduation Dinner at the Hockey Hall of Fame. Research Day was packed with outstanding presentations by our



students, residents, and scientists. Cale Zavitz won the Award for Best Presentation by a Junior Resident for his presentation, “Quantification of serum Oxidized LDL-specific immunoglobulins in murine models of atherosclerosis with a novel Enzyme-linked immunosorbent assay”. Ahmed Kayssi won the Award for Best Presentation by a Senior Resident for his presentation, “Drug-eluting balloon angioplasty versus non-stenting balloon angioplasty for peripheral arterial disease of the lower limbs”. Tricia Roy won the Alumni Award for Best Presentation by a Resident enrolled in the Surgeon Scientist Training Program for her presentation, “Magnetic Resonance imaging as a predictor of forces required to cross peripheral arterial lesions with a guidewire”. We were thrilled to welcome Dr. Melina Kibbe from Northwestern as the 5<sup>th</sup> K. Wayne Johnston Lecturer. She gave two outstanding talks entitled, “Sex bias in biomedical and clinical research” and “The ups and downs of translational research – one surgeon’s journey”. Prior to Research Day she was able to meet with faculty and residents at a Women in Vascular Surgery Luncheon and to participate in a Symposium on academic publishing where her experience as Editor of JAMA Surgery proved invaluable.

### Awards:

Dr. Oreopoulos’ leadership and expertise in surgical education was recognized with his appointment as the Director of Postgraduate Surgical Education for University Health Network. He was also awarded the 2015 Ross Fleming Award for Excellence in Surgical Education.

Dr. Kayssi, a final year vascular surgery resident in the U of T training program, was awarded a 2016 Detweiler Travelling Fellowship by the Royal College of Physicians & Surgeons of Canada. This Fellowship is intended to improve the quality of medical and surgical practice in Canada by enabling the recipient to visit other medical centres to study or gain experience in the use or application of new knowledge or techniques or to further the pursuit of a project relevant to clinical practice or research. Ahmed plans on visiting U.S. centres to gain experience in advanced, multidisciplinary limb salvage techniques and strategies.

Congratulations to *Dr. Trisha Roy*, for being awarded a 2016 Vanier Canada Graduate Scholarship! Trisha is a U of T Vascular Surgery resident who is currently enrolled in the Surgeon Scientist Training Program doing her PhD. The Scholarship provides \$50,000 a year for 3 years. These awards were launched with the Vanier Canada Graduate Scholarships (Vanier CGS) program in 2008 to strengthen Canada’s ability to attract and retain world-class doctoral students and establish Canada as a global centre of excellence in research and higher learning. Vanier Scholars demonstrate leadership skills and a high standard of scholarly achievement in graduate studies in the social sciences and/or humanities, natural sciences and/or engineering and health. Drs. Graeme Wright and Andrew Dueck are to be thanked for providing outstanding mentorship.

Dr. Trisha Roy also won the Passareillo Award for first prize in the rapid paced poster competition at the International Society of MR Angiography Meeting in Cincinnati, OH.

This year at our annual Graduation Dinner the residents and fellows voted for the top teacher among the faculty surgeons and residents. Congratulations to Drs. Andrew Dueck (Sunnybrook Health Sciences Centre) and Ahmed Kayssi for winning the faculty and resident awards respectively.

Congratulations to Dr. Giuseppe Papia (Sunnybrook Health Sciences Centre) for being awarded the 2015 – 2016 Peters-Boyd Academy Clerkship Faculty Teaching Award for Clinical Teaching at Sunnybrook.

Sneha Raju and Ahmed Kayssi were selected out of 120 posters to present in the Poster Competition Championship Round at the 2016 Society for Vascular Surgery Vascular Annual Meeting, with Ahmed winning the Top Poster Presentation Award. This is the 2<sup>nd</sup> year in a row that a U of T student/resident has won this award!

U of T students and faculty won several awards at the 2015 Meeting of the Canadian Society for Vascular Surgery, including Dr. Leonard Tse who won the Cook Research Award, Dr. Graham Roche-Nagle who won the Provan Education Award and Mary Tao who won the Sigvaris Award for best venous paper.





## The Hospital For Sick Children

**Dr. Christopher A. Caldarone,**  
*Surgeon-in-Chief*

### Division Heads:

<b>Dr. Glen Van Arsdell</b>	Cardiovascular Surgery
<b>Dr. Agostino Pierro</b>	General and Thoracic Surgery
<b>Dr. James Drake</b>	Neurosurgery
<b>Dr. Martin Gargan</b>	Orthopaedic Surgery
<b>Dr. Christopher Forrest</b>	Plastic and Reconstructive Surgery
<b>Dr. Martin Koyle</b>	Urology

The Hospital for Sick Children (SickKids) is Canada's largest pediatric academic health science center. SickKids is often compared with London's Great Ormond Street Hospital, Boston Children's Hospital, and the Children's Hospital of Philadelphia. SickKids treats the sickest and most complex children in Canada. Comparators, where available, place the quality of care among the best in the world. SickKids has a world-renowned Research Institute (RI) with more than 480 faculty engaged in all types of basic, clinical, and educational research. SickKids is consistently more successful at the Canadian Institute for Health Research (CIHR) (the Canadian "National Institutes of Health or NIH equivalent") than the national funding rate and receives more funding than the University of Western Ontario and Queen's University combined. Many of the clinical faculty members are world-renown scientists in their own right. Our teaching mission includes education and training for medical students, residents, fellows, graduate students aspiring to careers in delivery of pediatric care. We attract Fellows from around the world and fully trained clinicians regularly attend SickKids-sponsored Continuing Medical Education (CME) events.

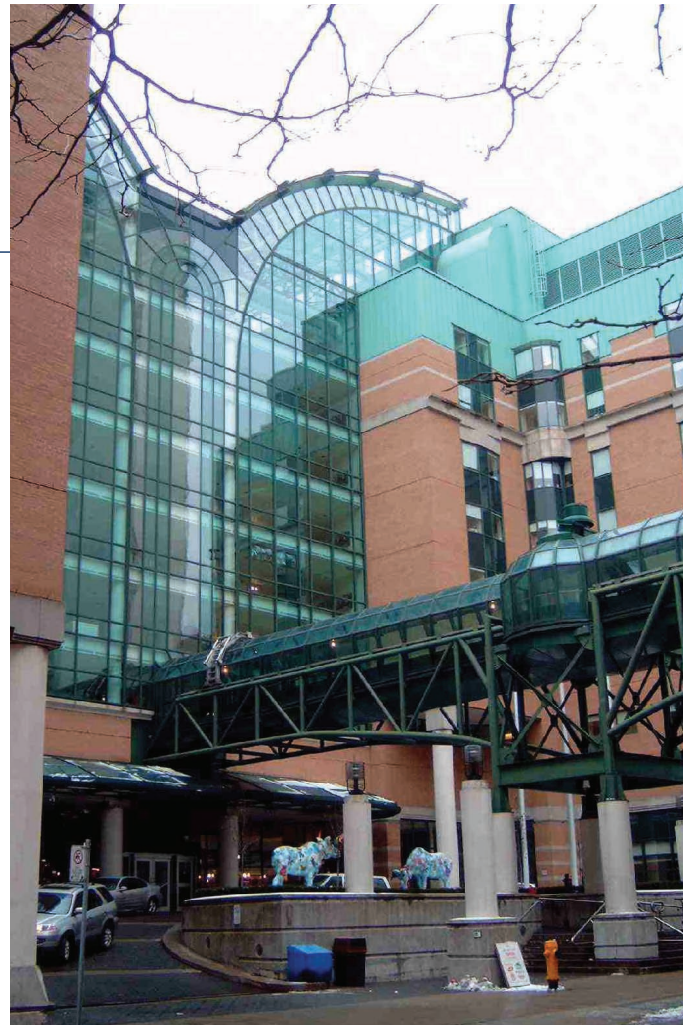
### NEW STAFF:

New recruits include Dr. **Augusto Zani** (General and Thoracic Surgery) and Dr. **Doug Cochrane** (Neurosurgery).

### DEPARTURES:

Dr. **James G. Wright**, Orthopaedic Surgery stepped down from the role of Surgeon-in-Chief, Chief of Perioperative Services, and VP of Medical Affairs and accepted the post of Senior Clinical Research Fellow in the Botnar Research Centre, University of Oxford and Honourary Consultant Paediatric Orthopaedic Surgeon, Oxford University Hospitals NHS Trust, UK.

Dr. **John Wedge** continued his clinical practice this year and his ambassadorial role for SickKids International in looking at DDH outcomes with Drs. Kelley and Gargan. On June 24, 2016, Dr. Wedge was our Mercer Rang Lecturer and on the same day, the Division hosted Professor Andreas Roposch, a former fellow of Dr. Wedge's from Great Ormond Street, UK. Professor Roposch gave the inaugural Wedge Lecture in his honor. On June 30, 2016, **Dr. John Wedge** hung up his scalpel.



### PROMOTIONS and APPOINTMENTS:

Dr. **Andrew Howard** was promoted to Full Professor of Surgery.

This year the generosity of the Groves Family has enabled an endowed chair for the Division of Orthopaedics and the University of Toronto. Dr. **Martin Gargan** was appointed as the inaugural *Harold and Bernice Groves Chair in Orthopaedics*.

Dr. **Chris Caldarone** stepped down as the Watson Chair for Cardiovascular Disease and was endowed with the Dr. Robert B. Salter Chair in Surgery.

### DIVISION OF CARDIOVASCULAR SURGERY

The Division of Cardiovascular Surgery continues to have a high profile in the international community of congenital heart disease. The Division recently began its engagement with the Society of Thoracic Surgeons Congenital Heart Surgery Database. Dr. **Glen Van Arsdell** conducted a 2 ½ day, hands-on congenital heart disease surgery course with 3D printed models which provided participants the opportunity to perform surgical procedures on anatomically precise 3D print models, including cases of tetralogy of Fallot, complete transposition of the great arteries with intact ventricular septum, two different forms of double outlet right ventricle and hypoplastic left heart syndrome. Dr. **John Coles** was awarded the Ontario Centre of Excellence Award for 2015. Dr. **Coles** is collaboratively leading a research consortium organized to discover and develop new treatments for childhood dilated cardiomyopathy (DCM), which is the most common form of heart muscle disease in



children and, in advanced cases, can only be treated by heart transplantation. This research project was selected for funding and was among the 10 projects funded across Canada through BlueLine Biosciences. The project received \$210,000 in funding for Integrin-Linked Kinase (ILK) as a novel cardiac target. Dr. **Chris Calderone** continues in his role as U of T Departmental Chairman of Cardiovascular Surgery and Surgeon-in-Chief and Chief of Perioperative Services at Sick Kids, continues his CIHR-funded research on pulmonary vein stenosis, and serves as an Associate Editor for the Journal of Thoracic and Cardiovascular Surgery. Dr. **Osami Honjo** continues to be heavily involved in the area of studying Fontan patients across the age spectrum with and without failing circulations to develop a computational model that will aid in the development of a new mechanical support device to bridge patients to cardiac transplantation. Dr. **Edward Hickey** shares his expertise around the world as an invited speaker at many venues. This year he drew innovative parallels between the National Aeronautics and Space Administration “threat and error” model and pediatric cardiac surgery.

## DIVISION OF GENERAL AND THORACIC SURGERY

Dr. **Georges Azzie** received the Bruce Tovee Award for Outstanding Contribution for Undergraduate Surgical Education. Dr. **Azzie** was also awarded the Chief Surgical Resident’s Award for the Best Teacher. Dr. **Azzie** continues to promote development of a surgical curriculum at the School of Medicine of the University of Botswana. Dr. **Priscilla Chiu** is the Principal Investigator and Scientific Director of the Thymocytes and Thymus Cells (TTC) Biobank at the SickKids Research Institute. Along with her ongoing international collaboration on Congenital Diaphragmatic Hernia (CDH) research she is the surgical director of both the CDH and TEF/EA multidisciplinary clinics at The Hospital for Sick Children. She is currently the Program Chair of the Canadian Association of Paediatric Surgeons (CAPS). Dr. **Annie Fecteau** is conducting clinical research on the consent process and is developing a transitional program for children with congenital surgical anomalies. She now serves as the Surgeon Champion for the Pediatric National Surgical Quality Improvement Program initiative. Dr. **J. Ted Gerstle’s** funded research program, MR-guided High Intensity Focused Ultrasound in the treatment of high risk neuroblastoma, is nearing completion of the first part of the study; within the academic year, a phase I clinical study should be started. The work that he is doing with the development of laparoscopic force-sensing instruments will be entering into clinical testing during this academic year. Dr. **Sharifa Himidan** continues work on international initiatives led by the U of T Department of Surgery. She continues surgical innovation collaboration with many national and international centers in surgical robotics, smart tools and simulation. Dr. **Himidan** is a senior member of RCPSC Specialty Exam Board in pediatric surgery. She is enrolled to obtain an MBA from D’Amore McKim School of Business, Boston Northeastern University. Dr. **Jack Langer** serves as the Past-President of the Canadian Association of Paediatric Surgeons (CAPS). Dr. **Langer** received the Votteler Visiting Professorship from the University of Texas Southwestern. In addition to teaching and operating internationally, he is a founder and ongoing member of the Steering Committee for the Hirschsprung Disease Research Collaborative. Dr. **Agostino Pierro** continues as Fellowship Program Director for the Division. His work as Senior Associate Scientist in the SickKids Research Institute focuses on necrotizing enterocolitis and randomized controlled trials (RCTs). He serves on the boards of the European Pediatric Surgeons’ Association (EUPSA) and the Canadian Association of Paediatric Surgeons (CAPS). Dr. **Paul Wales** received the Stanley J. Dudrick Research Scholar Award from the American Society for Parenteral and Enteral Nutrition (ASPEN). Dr. **Wales** continues in his role as Director of The Group for Improvement of Intestinal Function and Treatment

(GIFT), the only formalized program for intestinal failure in Canada. Dr. **Augusto Zani** has been appointed to the Division as Scientist Track Investigator. He is member of the Developmental and Stem Cell Biology at PGCRL and his research projects are on stem cell therapy for pulmonary hypoplasia and intestinal tissue engineering

## DIVISION OF NEUROSURGERY

Dr. **James Drake** has been appointed President-Elect, American Society for Pediatric Neurosurgeons, United States. In his role as Director, Image Guided Innovation and Therapeutic Interventions (CIGITI), he continues to encourage innovation and leading edge technology with his CIGITI colleagues and students under his supervision. He heads a multidisciplinary group within the MR-guided High Intensity Focused Ultrasound project with CIGITI in the treatment of bone tumors. He has been instrumental in the process and acquisition of the necessary equipment and expertise required to offer MRI-Guided High Intensity Focused Ultrasound to patients onsite. Dr. **James Rutka** was the recipient of the 2015 Margolese National Brain Disorders prize. The Margolese National Brain and Heart Disorders prizes were created by an estate gift made to the University of British Columbia by Leonard Herbert Margolese. This prize is awarded annually to a Canadian physician or scientist who has made outstanding contributions to the treatment, amelioration, or cure of brain disorders. He continues to travel the world sharing his expertise and knowledge on tumors and epilepsy as an invited speaker. He maintains his role as U of T Department Chairman of Surgery, and Editor of the Journal of Neurosurgery. Dr. **Peter Dirks** was announced as the leader of a four year, \$11.7 million Stand Up to Cancer grant provided by Stand Up To Cancer Canada, Genome Canada, Canadian Institutes of Health Research, Cancer Stem Cell Consortium, and Ontario Institute for Cancer Research. The award will fund research to better understand stem cells that allow brain tumors in children and adults. The project includes Dr. Sam Weiss (University of Calgary) as co-lead and Dr. Michael Taylor as a principal investigator. Dr. **Abhaya Kulkarni** continues to be heavily involved in the success of the Hydrocephalus Clinical Research Network (HCRN) leading the group in two projects focused on Endoscopic Third Ventriculostomy (ETV) vs. Shunts and ETV treatments. Most recently, he and his team received R01 N1H funding for their study “Neurocognitive outcomes and changes in brain and CSF volume after treatment of post-infections hydrocephalus in Ugandan infants by shunting or ETV/CPC: a randomized prospective trial”. This is in collaboration with Harvard, Penn State and Uganda. The grant is for \$592K USD. As Program Director, Neurosurgery Residency, Division of Neurosurgery, he continues to provide leadership to our residents. Drs. **Drake** and **Kulkarni** continue to be active members of the NRCN with numerous projects and reports on hydrocephalus patients. The group has expanded to 9 centers this past year. Dr. **Michael Taylor** was awarded the Department of Surgery’s Lister Prize at this year’s Gallie Fay and Gordon Murray Lectureship Dinner. The prize is given for demonstrated exceptional productivity at an international level. He continues to share his expertise around the world as an invited speaker at many venues. In March 2016, we welcomed Dr. **Douglas Cochrane** to the Division of Neurosurgery. Dr. **Cochrane** is the former Chief of Pediatric Neurosurgery at B.C. Children’s Hospital and joins the division for 15 months as a clinical Neurosurgeon with a focus on patient safety and quality. Dr. **Cochrane** has served in many important roles including Chief of Surgery at B.C. Children’s Hospital and more recently as Vice-President of Medical Affairs and Quality at the Children’s & Women’s Health Center of British Columbia. At a provincial level he has served as Patient Safety and Quality Officer for British Columbia, Ministry of Health Services and chair of the B.C. Patient Safety and Quality Council, Province of British Columbia. It is our expectation that Doug will enhance our quality and safety program within the Division.

## DIVISION OF ORTHOPAEDIC SURGERY

The spine team of Drs. **Reinhard Zeller** and **Steve Lewis** continue to take on the most complex cases and are investigating movement and balance in spinal deformity, looking at innovative treatment approaches. Dr. **Zeller** also serves as the President of the Canadian Paediatric Spine Society. The Division is now actively recruiting for another Surgeon to join the spine team. The neuro muscular team of Drs. **Unni Narayanan** and **Mark Camp** continue with their clinical and research programs in cerebral palsy. Dr. **Camp** in addition to caring for his CP patients continues with spine work and his ethics research. Dr. **Narayanan** is now the President Elect of the American Academy of Cerebral Palsy & Developmental Medicine. Dr. **Murnaghan** has a very busy practice in sports medicine and in addition to clinical trials and education research, continues in the role of Divisional Clinical Fellowship Coordinator for the University. Dr. **Murnaghan** received the 2016 Education Development Fund Award “A qualitative assessment of the role of bootcamps in junior residency”. Our presence in the Peter Gilgan Institute continues to be spearheaded by Drs. **Sevan Hopyan** and **Simon Kelley** with work on limb bud development and bone regeneration. They also have unique clinical practices, Dr. **Hopyan** in tumours and brachial plexus and Dr. **Kelley** in hip disorders and limb reconstruction. Dr. **Kelley** received three awards this year: Best Basic Science Abstract, International Limb Lengthening & Reconstruction Society; the Young Investigator Award, American Society for Bone & Mineral Research; Founder’s Medal, Canadian Orthopaedic Research Society. Dr. **John Wedge** continued with his clinical practice this year and his ambassadorial role for SickKids International and in looking at DDH outcomes with Drs. **Kelley** and **Gargan**. Dr. **Andrew Howard** continues to run a busy general practice along with the multidisciplinary Bone Health Clinic. His research continues to focus on injury prevention and he also continues his international work.

## DIVISION OF PLASTIC AND RECONSTRUCTIVE SURGERY

It has been a stellar year for the Division of Plastic and Reconstructive Surgery, the largest group of 8 full-time Pediatrics plastic surgeons in North America with a focus on transitions, continuing medical education and innovation. Following his retirement from active clinical practice in 2015, the 37 year career of Dr. **Ron Zuker** was celebrated at the 12th Annual Lindsay-Thomson Pediatric Plastic Surgery symposium in June highlighted by a packed program featuring former fellows from all points of the globe, including this year’s Vale lecturer, Professor Fu-Chan Wei from Taipei, Taiwan. This coincided nicely with the publication of the third edition of his book, Principles and Practice of Pediatric Plastic Surgery with co-editors, Michael Bentz and Bruce Bauer. This is considered to be the bible of Pediatric Plastic and Reconstructive Surgery and is unique in that all 9 members of the division have significant contributions to the 2 volume tome. Dr. **Greg Borschel** has been selected as visiting professor for the American Society of Plastic Surgery for 2016-2017. Dr. **Howard Clarke** successfully completed his year-long presidency of the Canadian Society of Plastic Surgeons with the 70th Annual Meeting in Ottawa and now takes on the role of Chair for the newly formed international collection of societies of plastic surgery, ICOPLAST. Dr. **Clarke** also completed his first year as Chair of the Promotions Committee in the Department of Surgery, at the University of Toronto. Surgeon scientist PhD trainee and plastic surgery resident Dr. Dale Podolsky (supervisors Dr. Christopher Forrest and James Drake) was awarded the prestigious Vannier Scholarship for his innovative work developing a robotic approach to cleft and craniofacial surgery and creation of cleft simulator for surgical education. Dr. **Karen Wong** was successful in the latest CIHR competition with a 3 year grant awarded for development of a patient-reported measure on facial differences, FACE-Q with Dr. Anne Klassen (McMaster). SickKids

continues to be the go-to destination for post-graduate education in Pediatric Plastic Surgery with a record number of international fellow applications in the areas of Pediatric Plastic Surgery and Pediatric Craniofacial Surgery. The Pediatric Burn Program under the supervision of Dr. **Joel Fish** is the only ABA certified Pediatric burn program in the country. Under his watch, burn volumes have increased 100% over the past 5 years yet length of stay and total cost per patient have diminished significantly due to a focus on out-patient care. For his innovative work in this area, Dr. **Fish** was honoured with the first annual Ronald M. Zuker award given to a staff, resident or fellow in the Division of Plastic and Reconstructive Surgery who best emulates Ron’s concepts of ingenuity, innovation and imagination. Dr. **Ron Zuker** was appointed as Director of Alumni Relations. Dr. **Zuker** has a remarkable educational pedigree and has trained hundreds of fellows and residents in the 37 years working at the Hospital for Sick Children. Dr. **Zuker** will be tasked with connecting with alumni to help with fund-raising, networking and divisional profile and create a sense of community with all of the remarkable people who have passed through the gates of our division at the University of Toronto.

## DIVISION OF UROLOGY

Dr. **Joana Dos Santos**, a Brazilian-trained pediatrician, completed the first “medical pediatric urology” fellowship in Canada and joined us as a full-time faculty member. She will be commencing a Master’s program in translational Science and has already developed an expertise in complex bowel-bladder dysfunction. Dr. **Frank Papanikilalou** has completed his first year with us as our first part-time associate. Dr. **Papanikilalou** is in active practice at Credit Valley. Dr. **Roberto Iglesias-Lopes** completed a very productive year with us as visiting faculty, bringing innovative techniques and skills from Sao Paulo, Brazil. Dr. **Darius Bagli**’s role as Associate Surgeon-In-Chief (Clinical) at SickKids continues to expand, as does his role in directing resident research within the U of T Urology Residency Program. His own contributions and influence in basic research work has been recognized by the American Urological Association, and this year he will be similarly honored at the European Society for Pediatric Urology (ESPU). Dr. **Bagli** received the AUA Research 2015 “Rising Stars Grant Competition” at the American Urological Association. Dr. **Armando Lorenzo** continues to broaden his expertise in pediatric urological oncology and fertility preservation in these complex patients. He recently served as faculty at the American Urological Association annual board review course and was the annual Visiting Professor for the Urological Society of Australia and New Zealand. Dr. **Lorenzo** won the 2015 Top 10 Reviewer Certificate Award, Journal of Pediatric Urology in recognition of exceptional work as a reviewer of submitted papers to the journal in 2015. Dr. **Walid Farhat** received the Gordon McLorie Award for Best Presentation at the Pediatric Urologists of Canada Scientific Meeting as well as the Best Video Abstract at the North American Society for Pediatric and Adolescent Gynecology (NASPAG). Dr. **Farhat** also received the AW Bruce Teaching Award from the University of Toronto. Dr. **Farhat** successfully ran his 9th Annual Pediatric Urology Laparoscopy course for all pediatric urology fellows across North America and has continued to innovate in simulation and direct the fellowship program in addition to his role as Associate Surgeon in Chief (Education). In coordination with nephrology, the “stone clinic” that they have developed continues to expand and provide valuable service. Along with Dr. Rutka, he visited the Ukraine this past year, delivering surgical and didactic education. In addition, he will commence a Master’s program in Law while maintaining his fulltime practice. Dr. **Martin Koyle**, Division Chief and Women’s Auxiliary Chair in Urology and Regenerative Medicine, completed the highly competitive research-based Masters of Science in Quality Improvement and Patient Safety at the Institute of Health Policy,



Management and Evaluation (IHPME) at the University of Toronto and was invited to remain on their faculty in addition to his administrative and clinical roles within the University and SickKids. He is currently editing his fifth textbook.

## EDUCATION:

The Department of Surgery continues to have an active education program training 39 clinical fellows and 139 residents originating from 22 countries worldwide. The Divisions hosted many visiting observers from countries such as: Colombia, United Kingdom, USA, China, France, Iran, India and Japan.

The Division of Cardiovascular Surgery conducted a 2 ½ day hands-on congenital heart disease surgery course in January with 3D print models which provided participants the opportunity to perform five surgical procedures on their own 3D print models.

The Division of General and Thoracic Surgery held the Congenital Diaphragmatic Hernia (CDH) Workshop in September. On June 10<sup>th</sup>, Dr. Olutoye Oluyinka was the visiting professor for the Annual Simpson Ein Lecture.

Neurosurgery hosted the 2<sup>nd</sup> Annual Jack Beqaj Lecture on September 30<sup>th</sup>, 2015 with invited speaker Dr. William Bingaman from the Cleveland Clinic.

On Friday, October 30<sup>th</sup>, 2015, the Division of Orthopedics was pleased to welcome Dr. John Herzenberg from Baltimore, Maryland as the Robert B. Salter Visiting Professor. On June 24<sup>th</sup>, 2016, Dr. Wedge

was our Mercer Rang Lecturer and on the same day the Division hosted Professor Andreas Roposch, a former fellow of Dr. Wedge's, from Great Ormond Street, UK. Professor Roposch gave the inaugural Wedge Lecture in his honour.

The Division of Plastics and Reconstructive Surgery held the 12<sup>th</sup> Annual Lindsay-Thomson Pediatric Plastic Surgery symposium in June 2016 with Professor Fu-Chan Wei as this year's Vale lecturer. The division hosted the multi-disciplinary Pediatric Hand Symposium in May, organized by Drs. Greg Borschel and Kristen Davidge. This was the first time in its 19 year history the meeting has been held outside the US. Congratulations to Dr. Davidge on the birth of her daughter, Vivienne as she temporarily interrupted her maternity leave to organize this important CME event.

The Division of Urology held the 9<sup>th</sup> Annual Pediatric Urology Laparoscopy course in August 2015 as well as the Micro-Surgical Skills Course in March. Dr. David Bloom was invited for the Interhospital Urology Rounds in June.

## RESEARCH:

The department received numerous awards totaling approximately \$13,500,000.00 for year, supporting a variety of projects/grants. There have been 319 new publications this year alone and our staff have been invited and presented over 364 presentations at venues and associations around the globe. The Department is engaged in a wide variety of clinical and basic research supervising 45 research fellows, 19 Masters Students, and 29 PhD students.

## Division of Cardiac Surgery

Dr. C.A. Caldarone	Professor
Dr. J. Coles	Professor
Dr. E. Hickey	Assistant Professor
Dr. O. Honjo	Associate Professor
Dr. G.S. Van Arsdell	Professor (Division Head)

## Publications

**Dekel H, Hickey EJ, Wallen J, Caldarone CA.** Repair of anomalous aortic origin of coronary arteries with combined unroofing and unroofing technique. *J Thorac Cardiovasc Surg.* 2015 Aug; 150(2): 422-4.

**Dekel H, Zhu J, Coles JG.** Repair of Atrioventricular Septal Defects: The 2-Patch Sandwich Technique. 2015. *Operative Techniques in Thoracic and Cardiovascular Surgery, A Comparative Atlas.* W.B. Saunders. United States. J. William Gaynor (ed) 63-74.

**Floh AA, Manlhiot C, Redington AN, McCrindle BW, Clarizia NA, Caldarone CA, Schwartz SM.** Insulin resistance and inflammation are a cause of hyperglycemia after pediatric cardiopulmonary bypass surgery. *J Thorac Cardiovasc Surg.* 2015 Sep; 150(3):498-504.e1.

**Grotenhuis HB, Ruijsink B, Chetan D, Dragulescu A, Friedberg MK, Kotani Y, Caldarone CA, Honjo O, Mertens LL.** Impact of Norwood versus hybrid palliation on cardiac size and function in hypoplastic left heart syndrome. *Heart.* 2016 Jun 15; 102(12):966-74.

**Haller C, Caldarone CA.** Incremental extension of a paradigm shift. 2015 Sept; 150(3): 731-2.

**Haller C, Coles JG.** The missing piece of the puzzle? *The Journal of Thoracic and Cardiovascular Surgery.* 2016 Mar; 151(3):e53-e54.

**Haller C, Kirsh JA, Van Arsdell G, Honjo O.** Cox-Maze IV in Total Anomalous Pulmonary Venous Drainage After Sutureless Repair. *Ann Thorac Surg.* 2016 Apr; 101(4):1602-4.

**Honjo O.** Acting on a rare event. *J Thorac Cardiovasc Surg.* 2016 Mar; 151(3): e57-8.

**Honjo O.** Hybrid palliation and pulmonary artery architecture. *J Thorac Cardiovasc Surg.* 2016 Jun 14. pii: S0022-5223(16)30502-5. doi: 10.1016/j.jtcvs.2016.05.060. [Epub ahead of print].

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- Keir M, Wald R, Roche S, Oechslin E, Horlick E, Osten M, Benson L, Hickey EJ, Crean A.** Does a dedicated subspecialty ACHD coronary clinic result in greater consistency in approach and reduced loss to follow-up? An evaluation of the first 3 years of the Toronto Congenital Coronary Clinic for Adults. *Progress in Pediatric Cardiology.* 2015 Dec;39(2): 145-150.
- Lo Rito M, Gazzaz T, Wilder T, Saedi A, Chetan D, Van Arsdell GS, Caldarone CA, Yoo SJ, Honjo O.** Repair Type Influences Mode of Pulmonary Vein Stenosis in Total Anomalous Pulmonary Venous Drainage. *Ann Thorac Surg.* 2015 Aug; 100(2): 654-62.
- Lo Rito M, Gazzaz T, Wilder TJ, Vanderlaan RD, Van Arsdell GS, Honjo O, Yoo SJ, Caldarone CA.** Pulmonary vein stenosis: Severity and location predict survival after surgical repair. *J Thorac Cardiovasc Surg.* 2016 Mar;151(3):657-66.e1-2.
- Lo Rito M, Honjo O, Caldarone CA.** Surgical Consideration in Pulmonary Vein Anomalies. Sabiston and Spencer (eds). *Surgery of the Chest* 2015
- Manlihot C, Gruenwald CE, Holtby HM, Brandão LR, Chan AK, Van Arsdell GS, McCrindle BW.** Challenges with heparin-based anticoagulation during cardiopulmonary bypass in children: Impact of low antithrombin activity. *J Thorac Cardiovasc Surg.* 2016 Feb; 151(2): 444-50.
- Mewhort HE, Haller C, Caldarone C.** Management of retrograde aortic arch malperfusion after hybrid stage I palliation for hypoplastic left heart syndrome. *J Thorac Cardiovasc Surg.* 2015 Dec; 150(6): e87-9.
- Mouzaki M, Schwartz SM, Mtaweh H, La Rotta G, Mah K, Herridge J, Van Arsdell G, Parshuram CS, Floh AA.** Can Vco<sub>2</sub>-Based Estimates of Resting Energy Expenditure Replace the Need for Indirect Calorimetry in Critically Ill Children? *JPEN J Parenter Enteral Nutr.* 2016 Feb; pii: 0148607115627143. [Epub ahead of print].
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- Wilder TJ, Ziemer G, Hickey EJ, Gruber PJ, Karamlou T, Kirshbom PM, Blackstone EH, DeCampi WM, Williams WG, McCrindle BW.** Surgical management of competing pulmonary blood flow affects survival before Fontan/Kreutzer completion in patients with tricuspid atresia type I. *J Thorac Cardiovasc Surg.* 2015 Nov; 150(5): 1222-30.e7.
- Williams WG, Trusler GA, Van Arsdell GS.** Development of Congenital Cardiac Surgery in Toronto. *Semin Thorac Cardiovasc Surg.* 2015 Dec; 27(4): 410-5.
- Yim O, Grotenhuis H, Dragulescu A, Honjo O, Jaeggi E.** Ruptured Sinus of Valsalva Aneurysm Late after Ventricular Septal Defect Repair. *European Society of Cardiology: EACVI Case Portal.* 2015 Jul; <http://learn.escardio.org/clinicalcase/casedetail/18c5bc73-91d3-4206-88c4-9fdc9f42aea7>.

## Invited Visits

- Caldarone, Christopher Anthony.** Pediatric and Adult Interventional Cardiac Symposium (PICS - AIC), Nevada, USA, Sept. 19, 2015. Invited Speaker: 1) Joint Session with the Congenital Heart Surgeons - Building a Successful Hybrid Program - the Collaborative Approach :The Surgeons Viewpoint. 2) Hybrid approaches in CHD - a slow starter or passed its prime ...the surgeons view.
- Caldarone, Christopher Anthony.** American Heart Association, Florida, United States, Nov. 2015. Invited Lecturer: HLHS trials: BT shunt, sano shunt or hybrid?
- Caldarone, Christopher Anthony.** Society of Thoracic Surgeons 52nd Annual Meeting, Arizona, United States, Jan 26-27, 2016. 1) Presenter: LVOT enlargement surgical techniques. 2) Moderator: STS Congenital II. 3) Presenter: Taussig-Bing with RVOTO and intra-operative injury.



**Caldarone, Christopher Anthony.** AATS 2016 96th Annual Meeting, Baltimore, Maryland, United States, May 16, 2016. Invited Discussant: 1) The Miniaturized Pediatric Continuous Flow Device: Pre-Clinical Assessment in the Chronic Sheep Model. 2) Five-Year Experience with Arterial Switch Operation in the First Hours of Using Autologous Umbilical Cord Blood.

**Hickey, Edward.** Grand Rounds, Great Ormond Street Hospital, London, United Kingdom, Jul 2015. Speaker: Flightplan model threat and error in high-stakes medicine.

**Hickey, Edward.** St. Paul's Hospital, Vancouver, British Columbia, Canada, Sept 10, 2015. Invited Speaker: Cheeki Rafiki, Air France 447 and pediatric heart surgery: chasing the culture of 6-sigma industries.

**Hickey, Edward.** Cincinnati Children's Hospital, Cincinnati, Ohio, United States, Oct 5, 2015. Invited Speaker: 1) Cheeki Rafiki, Air France 447 and pediatric heart surgery. 2) Airline models of performance and error.

**Honjo, Osami.** Cardiology Rounds, Tokyo Women's Medical University, Tokyo, Japan, Sept 16, 2015. Invited Lecturer: Current status in pediatric heart transplantation, ventricular assist device and extracorporeal life support.

**Honjo, Osami.** 46th Annual meeting of the Japanese Society for Cardiovascular Surgery, Nagoya, Japan, Feb 12, 2016. Invited Lecturer: 1) Ongoing strategic refinement and contemporary clinical outcome of stage I palliation for hypoplastic left heart syndrome. 2) What defines an academic surgeon?

**Honjo, Osami.** University of Virginia 8th Annual Cardiovascular Symposium, Virginia, Feb 25-26, 2016. Invited Speaker: 1) ABOI Heart Transplant. 2) EXVIVO in Pediatrics.

**Honjo, Osami.** ASAIO 62nd Annual Conference and ASAIO 5th Annual Pediatric Medical Device Day, San Francisco, California, Jun 15, 2016. 1) Invited Lecturer: VADs for failing Fontan circulation. 2) Chair: Novel approaches to VAD complications in pediatrics.

**Van Arsdell, Glen Scott.** 63rd Annual Scientific Meeting of the Cardiac Society of Australia & New Zealand, Melbourne, Australia, Aug 14-15, 2015. Presenter: 1) Risk, resilience and innovation in a surgical program. 2) AV Valve Repair in HLH. 3) Complex transposition - is complex surgery better? 4) The Cone Repair - doing and teaching.

**Van Arsdell, Glen Scott.** EACTS Annual Meeting, Amsterdam, Netherlands, Oct 3, 2015. Presenter: Is there a "sweet spot" - does timely decision making improve outcomes?

**Van Arsdell, Glen Scott.** 41st Argentina Congress of Cardiology, Buenos Aires, Argentina, Oct 16-17, 2015. Invited Lecturer: 1) Are Surgeons causing heart failure? 2) To err is human: Are errors inevitable? 3) Transposition of complex great vessels: Is it worth to perform complex surgery?

**Van Arsdell, Glen Scott.** Canadian Cardiovascular Congress, Toronto, Ontario, Oct 24-26, 2015. 1) Presenter: Measuring performance by employing a Heart Team approach: Lessons from Pediatric Cardiology and Cardiac Surgery. 2) Panel Member: National Clinical Case Rounds in Pediatric & Adult Congenital Heart Disease. 3) Co-Chair: Effective use of data to impact quality in patients with congenital heart disease.

**Van Arsdell, Glen Scott.** 46th Annual Meeting of Japanese Society for Cardiovascular Surgery, Nagoya, Japan, Feb 15, 2016. 1) Invited Lecturer: Single Ventricle Surgery. 2) Commentator: Surgical treatment of HLHS - Tactics to avoid.

**Van Arsdell, Glen Scott.** American Association of Thoracic Surgeons, Baltimore, Maryland, May 14, 2016. Co-Chair: Postgraduate Symposia.

## Research and Investigations

Death after Circulatory Death Transplant Project. James Cummings Foundation. Honjo O. (\$150,000.00 CAD May 2016 - Apr 2018).

Development of a novel device for treatment of failing Fontan circulation. Ted Rogers Centre for Heart Research. Honjo O. (\$32,500.00 CAD May 2016 - Apr 2018).

Development of Computational Models to Aid in the Diagnosis and Treatment of Failing Fontan Circulation. EMH Seed. Honjo O, Roche SL, Amon C. (\$135,000.00 CAD 2016 - 2018).

Development of Mechanical Circulatory Support System for Failing Single Ventricle Fontan Physiology. Peter Munk Cardiac Centre. Honjo O. (\$115,000.00 CAD Sept. 2015 - Sept 2018).

The Safety and Feasibility of Losartan Therapy for Treatment of Pulmonary Vein Stenosis in Pediatric Patients. Labatt Family Heart Centre. Caldarone C, Adatia I, Grosse-Wörtmann L, Vanderlaan R. (\$24,930.00 CAD 2016-2018).

## Division of General Surgery

Dr. G.R. Azzie	Associate Professor
Dr. P.P.I. Chiu	Assistant Professor
Dr. A. Fecteau	Associate Professor
Dr. J.T. Gerstle	Associate Professor
Dr. S. Himidan	Assistant Professor
Dr. J.C. Langer	Professor
Dr. A. Pierro	Professor (Division Head)
Dr. P. Wales	Associate Professor
Dr. A Zani	Assistant Professor

### Publications

- Abdi E, Bouri M, Himidan S, Burdet E, Bleuler H.** Third Arm Manipulation for Surgical Applications: An Experimental Study. 2015. *New Trends in Medical and Service Robots: Challenges and Solutions*. Springer, Switzerland.
- Abdi E, Burdet E, Bouri M, Himidan S, Bleuler H.** In a demanding task, three-handed manipulation is preferred to two-handed manipulation. *Sci Rep*. 2016 Feb 25;6:21758.
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- Davis AL, Wales PW, Malik T, Stephens D, Razik F, Schuh S.** The BIG Score and Prediction of Mortality in Pediatric Blunt Trauma. *J Pediatr*. 2015 Sept; 167(3): 593-598.e1.
- De Dominicis C, De Matteis A, Michetti PM, Cuzari S, Zani A.** Testicular tumour. *Clinical Urology*. Pharma. DeDominicis C (ed). 2016.
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- Elkadri A, Thoeni C, Deharvengt SJ, Murchie R, Guo C, Stavropoulos JD, Marshall CR, Wales PW, Bandsma R, Cutz E, Roifman CM, Chitayat D, Avitzur Y, Stan RV, Muise AM.** Mutations in Plasmalemma Vesicle Associated Protein Result in Sieving Protein-Losing Enteropathy Characterized by Hypoproteinemia, Hypoalbuminemia, and Hypertriglyceridemia. *Cell Mol Gastroenterol Hepatol*. 2015 Jul; 1(4):381-394.e7.
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- Hall NJ, Chiu PP, Langer JC.** Morbidity after elective resection of prenatally diagnosed asymptomatic congenital pulmonary airway malformations. *Pediatr Pulmonol.* 2016 May;51(5):525-30.
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- Zhao JY, Chiu PP, Dasgupta R, Jen HC, Rothstein DH.** Defining the Need for Transitional Care From Pediatric to Adult Surgery for Young Adult Patients With Surgically Corrected Congenital Anomalies. *JAMA Surg.* 2016 Apr; 151(4): 393-4.

## Invited Visits

- Azzie, Georges R.** Canadian Association of Paediatrics Surgeons, Niagara Falls, Ontario, Sept 17, 2015. Invited Speaker: Global Surgery.
- Azzie, Georges R.** Buffalo Children's Hospital, Buffalo, New York, Nov. 10, 2015. Visiting Professor: Rounds on Global Surgery.



- Azzie, Georges R.** Philadelphia Childrens Hospital, Philadelphia, Pennsylvania, Dec 8, 2015. Visiting Professor: Global Surgery.
- Azzie, Georges R.** Design of Medical Devices Conference, Minneapolis, Minnesota, Apr. 13, 2016. Facilitator: Force-Sensing Sleeve for Laparoscopic Surgery.
- Azzie, Georges R.** International Paediatric Endosurgery Congress (IPEG), Hukuoka [Fukuoka] Jigyohama, Chuo-Ku, Japan, May 23, 2016. Invited Speaker: 1) The Educational Importance of Defining Surgical Expertise. 2) Analysis of Motion in Laparoscopy: The Deconstruction of an Intra-corporeal Suturing Task. 3) Education in Minimally Invasive Surgery. Certification: Where are we, and where should we go?
- Fecteau, Annie.** AASLD / NASPGHAN Pediatric Symposium, San Francisco, California, Nov 2015. Speaker: Liver Transplantation for Children with Acute Liver Failure Associated with Secondary Hemophagocytic Lymphohistiocytosis
- Fecteau, Annie.** Israel Gastroenterology Association Annual Meeting, Tel-Aviv, Israel, Feb 2016. Speaker: Liver Transplantation for Children with Acute Liver Failure Associated with Secondary Hemophagocytic Lymphohistiocytosis.
- Fecteau, Annie.** Israel Society for Clinical Pediatrics Annual Meeting, Tel-Aviv, Israel, Feb 2016. Speaker: Liver Transplantation for Children with HLH-associated Acute Liver Failure.
- Fecteau, Annie.** EUPSA 2016, Milan, Italy, Jun 18, 2016. Presenter: Understanding the Development of Post-Necrotizing Enterocolitis Strictures.
- Gerstle JT.** 28<sup>th</sup> International Symposium on Pediatric Surgical Research. Dublin, Ireland, Sept 25, 2015. Presenter: Non-Invasive Ablation of Fetal Rabbit Tissue in Utero Using Magnetic Resonance Guided High Intensity Focused Ultrasound.
- Himidan, Sharifa.** Canadian Association of Paediatric Surgeons, 47th Annual Meeting, Niagara Falls, Ontario, Sept 18, 2015. Presenter: 1) Pneumomediastinum and cannabinoids consumption. 2) Laser-assisted indocyanine-green dye angiography: a novel approach for real-time assessment of bowel perfusion.
- Langer, Jacob Charles.** Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, Sept 29, 2015. Presenter: Webinar on the Management of Complex Cloacal Malformations.
- Langer, Jacob Charles.** Pediatric Grand Rounds, University of Texas Southwestern, Dallas, Texas, Nov 4, 2015. Invited Speaker: 1) Hirschsprung disease: new concepts and controversies. 2) Surgical management of inflammatory bowel disease in children.
- Langer, Jacob Charles.** 2015 Pediatric Colorectal, Motility and Pelvic Reconstruction Conference, Columbus, Ohio, Nov 5, 2015. Invited Lecturer: Short bowel syndrome and motility case reviews", "Hirschsprung disease: post-pullthrough problems", "Inflammatory bowel disease.
- Langer, Jacob Charles.** Kaiser Permanente Hospital, Oakland, California, Mar 3, 2016. Invited Speaker: Duhamel pullthrough for total colon aganglionosis.
- Pierro, Agostino.** Canadian Association of Paediatric Surgeons, 47th Annual Meeting, Niagara Falls, Ontario, Sept 17-18, 2015. Speaker: 1) Pneumomediastinum and cannabinoids consumption. 2) Laser-assisted indocyanine-green dye angiography: a novel approach for real-time assessment of bowel perfusion.
- Pierro, Agostino.** Raymond A. Amoury, Lecture Department of Surgery, Children's Mercy Hospital, Kansas City, Missouri, May 12, 2016. Visiting Professor: Necrotizing enterocolitis: novel therapeutic options.
- Pierro, Agostino.** Canadian Paediatric Society Annual Conference Neonatal Day, Charlottetown, Prince Edward Island, Jun 22, 2016. Invited Speaker: 1) Surgical Treatment of NEC: evidence based practice and novel approaches. 2) Controversies and Innovations in Neonatal Surgery.
- Wales, Paul.** American Society of Parenteral and Enteral Nutrition. Long Beach, California, Feb 14, 2015. Invited Lecturer: Soy/MCT/Olive/Fish IVFE and the Pediatric Patient: The Canadian Experience.
- Wales, Paul.** Department of Gastroenterology and Nutrition, Stollery Children's Hospital, University of Alberta. Edmonton, Alberta, May 11, 2015. Distinguished Speaker: Intestinal Failure Management and the Role of SMOF Lipid.
- Zani, Augusto.** Canadian Association of Paediatrics Surgeons (CAPS), Niagara Falls, Ontario, Sept 17, 2015. Presenter: 1) Intestinal epithelial cell injury is rescued by administration of hydrogen sulfide donor. 2) Mortality trends in infants with necrotizing enterocolitis in Canada: A population based study. 3) Pneumomediastinum and cannabinoids consumption. 4) Laser-assisted indocyanine-green dye angiography: A novel approach for real-time assessment of bowel perfusion.
- Zani, Augusto.** 28<sup>th</sup> International Symposium on Paediatric Surgical Research, Dublin, Ireland, September 24-26, 2015. Presenter: 1) Intraoperative Acidosis and Hypercapnia During Thoracoscopic Repair of Esophageal Atresia/Tracheoesophageal Fistula . 2) Preservation of Native Esophagus in Infants with Pure Esophageal Atresia Has Good Long-Term Outcomes Despite Significant Postoperative Morbidity. 3) Outcome of Esophageal Atresia/Tracheoesophageal Fistula in Extremely-Low-Birth-Weight Neonates. 4) Necrotizing Enterocolitis in Canada: Population Based Analysis of Treatment and Outcome.
- Zani, Augusto.** American Academy Pediatrics (AAP), Washington, District of Columbia, October 22 - 25, 2016. Presenter: 1) Function of Intestinal Epithelium is Affected by Endoplasmic Reticulum Stress. 2) Necrotizing Enterocolitis in Canada: Population based analysis of treatment and outcome.
- Zani, Augusto.** American Pediatric Surgical Association (APSA), San Diego, California, May 15-17, 2016. Presenter: 1) Intestinal Epithelial Injury Following Maternal Separation is Rescued by Hydrogen Sulfide. During Experimental Necrotizing Enterocolitis. 2) Epigenetic Regulation of Intestinal Stem Cell Population During Experimental Necrotizing Enterocolitis. 3) Necrotizing Enterocolitis but Is Recovered by Administration of Amniotic Fluid Stem Cells.
- Zani, Augusto.** 17th EUPSA Congress, Milan, Italy, June 15-18, 2016. Presenter: European Paediatric Surgeons' Association survey on the management of Hirschsprung's disease.

## Research and Investigations

- 3D Data Acquisition for Image Guided Surgery (3DAIGS). *Ontario Research Fund*. Himidan S, Wildes R. (\$12,000.00 CAD Dec 2015 – Jun 2016).
- Creation of a Registry of Children and Adolescents Evaluated in the Lymphadenopathy Clinic: Optimizing patient care through consistent practice. Department of Paediatrics, *The Hospital for Sick Children*. Schwartz S, Alexander S, Gerstle JT, Campisi P, Science M, Wadhwa A, Punnett A, Gupta S, Wiley J. (\$10,000.00 CAD 2015–2018).
- Development and Validation of the Analysis of Force in Simulation Based Education of Laparoscopic Surgery. *The Hospital for Sick Children*. Azzie GR. (\$10,000.00 CAD Apr 2016 – July 2017).
- E-Consent Tool for Supracondylar Fractures. *The Hospital for Sick Children*. Fecteau A, Camp M. (\$10,000.00 CAD 2016 – present).
- Magnetic Resonance-guided High Intensity Focused Ultrasound for the Treatment of High Risk Neuroblastoma. *Solving Kids Cancer*. Gerstle JT, Drake J, Waspe A, Looi T, Amaral J, Temple M, Irwin M, Baruchel S, Malkin D, David E, Pichardo S. (\$246,880 CAD 2015 – 2018).
- MRI for Diagnosis of Equivocal Initial Ultrasounds in Suspected Pediatric Appendicitis: Ultrasound First, MRI Second Approach. *Physicians Services Incorporated Foundation (The) (PSI)*. Wales PW, Doria A, Schuh S, Tomlinson G, Ungar W, Guttman A, Maguire J. (\$170,000.00 CAD Jul 2015 – Jun 2016)

## Honours and Awards

- Azzie, Georges R:** Bruce Tovee Award. Outstanding Contribution for Undergraduate Surgical Education, Dept of Surgery, Faculty of Medicine. May 2016.
- Langer, Jacob Charles:** Pediatric Surgery Resident Teaching Award, The Hospital for Sick Children. 2015.
- Wales, Paul:** The Stanley J. Dudrick Research Scholar Award. American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.). Austin, Texas. Jan 2016.

## Division of Neurosurgery

Dr. P.B. Dirks	Professor
Dr. J.M. Drake	Professor (Division Head)
Dr. A.V. Kulkarni	Professor
Dr. J.T. Rutka	Professor
Dr. M.D. Taylor	Professor

## Publications

- Agnihotri S, Golbourn B, Huang X, Remke M, Younger S, Cairns RA, Chalil A, Smith CA, Krumholtz S-L, MacKenzie D, Rakopoulos P, Ramaswamy V, Taccone MS, Mischel PS, Fuller GN, Hawkins C, Stanford WL, Taylor MD, Zadeh G, Rutka JT.** PINK1 is a Negative Regulator of Growth and the Warburg Effect in Glioblastoma. *Cancer Research*. June 2016; DOI: 10.1158/0008-5472.
- Ahmed R, Rutka JT.** The role of MEG in pre-surgical evaluation of epilepsy: current use and future directions. *Expert Rev Neurother*. 2016 May 9:1-7.
- Akiyama T, Akiyama M, Kobayashi K, Okanishi T, Boelman CG, Nita DA, Ochi A, Go CY, Snead OC 3rd, Rutka JT, Drake JM, Chuang S, Otsubo H.** Spatial relationship between fast and slow components of ictal activities and interictal epileptiform discharges in epileptic spasms. *Clin Neurophysiol*. 2015; 126(9):1684-91.
- Alli S, Isik S, Rutka JT.** Microsurgical removal of craniopharyngioma: endoscopic and transcranial techniques for complication avoidance. *J Neurooncol*. 2016 May 19. [Epub ahead of print].
- Badhiwala JH, Hong CJ, Nassiri F, Hong BY, Riva-Cambrin J, Kulkarni AV.** Treatment of posthemorrhagic ventricular dilation in preterm infants: A systematic review and meta-analysis of outcomes and complications. *J Neurourg Pediatrics*. 2016 Feb; 16(5):545-555.
- Badhiwala JH, Nassiri F, Alhazzani W, Selim MH, Farrokhyar F, Spears J, Kulkarni AV, Singh S, Alqahtani A, Rochweg B, Alshahrani M, Murty NK, Alhazzani A, Yarascavitch B, Reddy K, Zaidat OO, Almenawer SA.** Endovascular thrombectomy for acute ischemic stroke: a meta-analysis. 2015 Nov; 314(17):1832-1843.
- Balogun JA, Rutka JT.** Surgery of Craniopharyngiomas in Children. 2015; 28:459-477. 1st Edition. Craniopharyngiomas. Comprehensive Diagnosis, Treatment and Outcome. Elsevier, James Evans & Tyler Kenning (eds).
- Breimer GE, Haji FA, Cinalli G, Hoving EW, Drake JM.** Validity Evidence for the Neuro-Endoscopic Ventriculostomy Assessment Tool (NEVAT). *Journal of Operative Neurosurgery*. 2015 Nov; doi: 10.1227/NEU.0000000000001158.



- Breimer GE, Haji FA, Hoving EW, Drake JM.** Development and content validation of performance assessments for endoscopic third ventriculostomy. *Childs Nerv Syst.* 2015 Aug;31(8):1247-59.
- Brooks RJ, Looi T, Drake J.** Prediction of mechanical behaviour from histology in thin collagenous tissues. *Conf Proc IEEE Eng Med Biol Soc.* 2015 Aug;2015:4845-8.
- Calayag M, Malone CC, Drake B, Chavhan G, Rutka JT.** Fetal ovarian cyst mimicking a CSF pseudocyst in the setting of shunt failure. *J Neurosurg Pediatr.* 2015; 15(1):89-91.
- Chen W, Barszczyk A, Turlova E, Deurloo M, Liu B, Yang BB, Rutka J, Feng ZP, Sun HS.** Inhibition of TRPM7 by carvacrol suppresses glioblastoma cell proliferation, migration and invasion. *Oncotarget.* 2015; 6(18):16321-40.
- Chen W, Turlova E, Sun CLF, Kim JS, Huang S, Zhong X, Guan YY, Wang GL, Rutka J, Feng ZP, Sun HS.** Xyloketal B Suppresses Glioblastoma Cell Proliferation and Migration in Vitro through Inhibiting TRPM7-Regulated P13K/Akt and MEK/ERK Signaling Pathways. *Marine Drugs.* 2015;13(4): 2505-25.
- Cheng S, Hawkins C, Taylor MD, Bartels U.** Subependymal Giant Cell Astrocytoma Following Treatment with Rapamycin. *Pediatr Neurol.* 2015 Sep;53(3):238-242.e1.
- Cheng S, Kilday JP, Laperriere N, Janzen L, Drake J, Bouffet E, Bartels U.** Outcomes of children with central nervous system germinoma treated with multi-agent chemotherapy followed by reduced radiation. *J Neurooncol.* 2016 Mar; 127(1):173-80.
- Chornenkyy Y, Adnihotri S, Yu M, Buczkowicz P, Rakopoulos P, Golbourn B, Garzia L, Siddaway R, Leung S, Rutka JT, Taylor MD, Dirks PB, Hawkins C.** Poly-ADP-Ribose Polymerase as a Therapeutic Target in Pediatric Diffuse Intrinsic Pontine Glioma and Pediatric High-Grade Astrocytoma. *Mol Cancer Ther.* 2015 Nov;14(11):2560-8.
- Chun HJ, Lim EL, Heravi-Moussavi A, Saberi S, Mungal KL, Bilenky M, Carlas A, Tse K, Shlafman I, Zhu K, Qian JQ, Palmquist DL, He A, Long W, Goya R, Ng M, LeBlanc VG, Pleasance E, Thiessen N, Wong T, Chuah E, Zhao YJ, Schein JE, Gerhard DS, Taylor MD, Mungal AJ, Moore RA, Ma Y, Jones SJ, Perlman EJ, Hirst M, Marra M.** Genome-Wide Profiles of Extra-cranial Malignant Rhabdoid Tumors Reveal Heterogeneity and Dysregulated Developmental Pathways. *Cancer Cell.* 2016; 29(3)-394-406.
- Coluccia D, Figueredo C, Isik S, Smith C, Rutka JT.** Medulloblastoma: Tumor Biology and Relevance to Treatment and Prognosis Paradigm. *Curr Neurol Neurosci Rep.* 2016; 16:43.
- Daghistani R, Rutka J, Widjaja E.** MRI characteristics of cerebellar tubers and their longitudinal changes in children with tuberous sclerosis complex. *Childs Nerv Syst.* 2015; 31(1):109-13.
- Diaz RJ, Golbourn B, Faria C, Shih D, MacKenzie D, Picard D, Raynaud D, Leadly M, Bryant M, Bebanek M, Smith CA, Taylor MD, Huang A, Rutka JT.** Mechanisms of action and therapeutic efficacy of Aurora kinase B inhibition in MYC overexpressing medulloblastoma. *Oncotarget.* 2015; 6(5): 3359-3374.
- Diaz RJ, Dios RR, Hattab EM, Burrell K, Rakopoulos P, Sabha N, Hawkins C, Zadeh G, Rutka JT, Cohen-Gadol AA.** Study of the biodistribution of fluorescein in glioma-infiltrated mouse brain and histopathological correlation of intraoperative findings in high-grade gliomas resected under fluorescein fluorescence guidance. *Journal of Neurosurgery.* 2015; 122(6):1360-9.
- Dietl S, Schwinn S, Dietl S, Riedel S, Deinline F, Rutkowski S, von Buren AO, Krauss J, Schweitzer T, Vince GH, Picard D, Eyrich M, Rosenwald A, Ramaswamy V, Taylor MD, Remke M, Monoranu CM, Beihack A, Schlegel PG, Wolfi M.** MB3W1 is an orthotopic xenograft model for anaplastic medulloblastoma displaying cancer stem cell and Group 3 properties. *BMC Cancer.* 2016 Feb 17;16:115.
- Dolma S, Selvadurai HJ, Lan X, Lee L, Kushida M, Voisin V, Whetstone H, So M, Aviv T, Park N, Zhu X, Xu C, Head R, Bernstein M, Clarke ID, Bader G, Harrington L, Brummell JH, Tyers M, Dirks PB.** Inhibition of Dopamine Receptor D4 Impedes Autophagic Flux, Proliferation, and Survival of Glioblastoma Stem Cells. *Cancer Cell.* 2016 Jun 13;29(6):859-73.
- Dorfer C, Ochi A, Snead OC 3rd, Donner E, Holowka S, Widjaja E, Rutka JT.** Functional hemispherectomy for catastrophic epilepsy in very young infants: technical considerations and complication avoidance. *Childs Nerv Syst.* 2015 Nov; 31(11):2103-9.
- Dorfer C, Tonn J, Rutka JT.** Ependymoma: a heterogeneous tumor of uncertain origin and limited therapeutic options. *Handbook Clin Neurol.* 2016; 134: 417-31.
- Dorfer C, Widjaja E, Ochi A, Snead OC 3rd, Rutka JT.** Epilepsy surgery: recent advances in brain mapping, neuroimaging and surgical procedures. *J Neurosurg Sci.* 2015;59(2):141-55.
- Eastwood KW, Looi T, Naguib HE, Drake JM.** Design optimization of neuroendoscopic continuum instruments for third ventriculostomy and tumor biopsy. *Conf Proc IEEE Eng Med Biol Soc.* 2015 Aug;2015:4883-6.
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**Wong SM, Ibrahim GM, Ochi A, Otsubo H, Rutka JT, Snead OC 3rd, Doesburg SM.** MoviEEG: An animation toolbox for visualization of intracranial electroencephalography synchronization dynamics. *Clin Neurophysiol*. 2016 Jun; 127(6):2370-8.

## Invited Visits

**Dirks, Peter Benjamin.** 16th Annual Interventional Neuroradiology Symposium, Toronto, Ontario, Sept 25, 2015. Invited Lecturer: Pediatric Vascular Disease- The Surgical View University of Toronto.

**Dirks, Peter Benjamin.** Insights into Pediatric Brain Tumor Biology Meeting, Dusseldorf, Germany, Oct 1, 2015. Invited Lecturer: Defining glioblastoma stem cell self renewal and differentiation competency.

**Dirks, Peter Benjamin.** SGC Tissue Platform Meeting, Boston, Massachusetts, Oct 14, 2015. Invited Lecturer: Brain Tumor Stem Cell Platform.

**Dirks, Peter Benjamin.** Uppsala University- CMB Seminar series, Uppsala, Sweden, Feb 11, 2016. Invited Lecturer: Brain Tumor Stem Cells: Shifting the balance of self renewal and differentiation.

**Dirks, Peter Benjamin.** Karolinska Institute, Stockholm, Sweden, Feb 12, 2016. Invited Lecturer: Determinants of the Brain Cancer Hierarchy.

**Dirks, Peter Benjamin.** Angioma Alliance Canada Conference, Toronto, Ontario, Jun 11, 2016. Invited Lecturer: A-Z of Cavernous Malformations.

**Dirks, Peter Benjamin.** 17th Biennial Canadian Neuro-Oncology Meeting, Toronto, Ontario, Jun 11, 2016. Invited Lecturer: Exploring stem cell biology to identify new brain tumor treatments.

**Drake, James M.** Hamlyn Symposium on Medical Robotics, London, United Kingdom, Jun 25-28, 2016. Speaker: 1) The Feasibility of the da Vinci System and Development of a Pin Jointed Wrist for Infant Cleft Palate Surgery. 2) A Dual-Arm Robotic Neuroendoscope: Early Results.

**Drake, James M.** Canadian Neurosurgical Innovation Meeting, Toronto, Ontario, 2016. Speaker: USE OF SMART MATERIALS FOR IMAGE GUIDED NEURO-ENDOSCOPIC ROBOTICS.

**Drake, James M.** Hamlyn Symposium on Medical Robotics, London, United Kingdom, 2015. Speaker: 1) MR-Conditional Robot for Transcranial Focused Ultrasound in Infants. 2) Applications of Robotics in Pediatric Neurosurgery. 3) Development of a High-Fidelity Pediatric Cleft Palate Phantom and Feasibility Testing using a da Vinci ® Surgical System.

**Drake, James M.** Congress of Neurological Surgeons, New Orleans, LA, 2015. Defining Spatial Design. Speaker: Requirements of Dexterous Instruments for Combined Endoscopic Third Ventriculostomy and Pineal Region Tumor Biopsy/Excision.

**Drake, James M.** Operation Smile NEXT Conference, Virginia, 2015. Speaker: Development and validation of a high-fidelity cleft palate simulator.

**Drake, James M.** American Cleft Palate-Craniofacial Association. 72nd Annual Meeting and Symposia, Florida, 2015. Presenter: Development of a robotic approach to cleft palate repair. Phase 1: Creation and validation of a cleft palate simulator.

**Drake, James M.** International Symposium on Paediatric Surgical Research in Dublin, Dublin, Ireland, Sept 26, 2015. Presenter: Non-Invasive Ablation of Rabbit Fetal Tissue In Utero with MRgHIFU.

**Drake, James M.** Canadian Society of Plastic Surgeons (CSPS) Meeting, Victoria, BC, 2015. Presenter: Development of a robotic approach to cleft palate repair.

**Drake, James M.** The 16th Congress of the International Society of Craniofacial Surgery, Tokyo, Japan, 2015. Presenter: The application of surgical robotics in cleft and craniofacial care.

**Kulkarni, Abhaya V.** Congress of Neurological Surgeons, New Orleans, Louisiana, Sept 2015. Invited Plenary Speaker: Shunting for infant hydrocephalus.

**Kulkarni, Abhaya V.** Calgary Hydrocephalus Symposium, Calgary, Alberta, Sept 2015. Invited Lecturer: Role of ETV in pediatric hydrocephalus.

**Kulkarni, Abhaya V.** International Hydrocephalus Imaging Working Group, Banff, Alberta, Sept 2015. Invited Lecturer: Importance of ventricle volume in hydrocephalus.

**Kulkarni, Abhaya V.** World Federation of Neurosurgical Societies, Rome, Italy, Sept 2015. Invited Lecturer: Collaborative, international studies in neuro-endoscopy: lessons learned.

**Kulkarni, Abhaya V.** University College London, National Hospital Queens Square, London, United Kingdom, Mar 2016. Visiting Professor: Posterior fossa anatomy and surgical approaches.

**Rutka, James T.** Society of Neurological Surgeons, RUNN Course, Woodshole, MA, Oct 27, 2015. Invited Lecturer: Glioblastoma Multiforme: Advances Beyond the Leading Edge.

**Rutka, James T.** International Society of Pediatric Neurosurgery, Rio de Janeiro, Brazil, Nov 13, 2015. Fred Epstein Memorial Lecturer: 1) Monitoring and mapping during brain surgery in children. 2) The Journal of Neurosurgery Update: Is neuromonitoring valued in neurosurgical journals?

**Rutka, James T.** Dean Echols Lectureship in Neuroscience, New Orleans, LA, Nov 16, 2015. Keynote Lecturer: Brain Stem Tumours.



- Rutka, James T.** University of British Columbia, Margolese National Brain Disorders Prize Celebratory Event, Vancouver, British Columbia, Nov 23, 2015. Invited Speaker: 1) Recent Advances in Epilepsy Surgery: MEGs, HFOs, IONM, and Neuroal-GPS. 2) Human malignant brain tumours: Advances from the leading edge.
- Rutka, James T.** JSNO Meeting, Kyoto, Japan, Dec 6, 2015. Invited Speaker: 1) Medulloblastoma – subgroup specific targeting, and promise for the future. 2) Molecular Therapeutic Targeting of Glioblastoma Multiforme: Advances from the leading edge.
- Rutka, James T.** Barrow Neurological Institute, Phoenix, Arizona, Jan 15, 2016. Sally Harrington Goldwater Visiting Professor: Neurosurgical Management of Brainstem Tumors.
- Rutka, James T.** Washington University of St. Louis, St. Louis, Missouri, Jan 30, 2016. Henry G. and Edith R. Schwartz Lecturer: Research Symposium Keynote Address: Astrocytoma Invasion: Advances from the cutting edge.
- Rutka, James T.** Weill Cornell Medical College, New York, Feb 8, 2016. Invited Speaker: Advances in neurological management of brainstem tumours.
- Rutka, James T.** Asilomar, Okinawa, Busena, Japan, Apr 11, 2016. Invited Speaker: The Role of Stress Granules in Astrocytoma Cell Signaling.
- Rutka, James T.** American Association of Neurological Surgeons, Chicago, Illinois, Apr 29, 2016. Invited Speaker: 1) Cortical Stimulation Mapping: How we do it. 2) University of Toronto Neurosurgeon as Editor-In-Chief, as Chair of Neurosurgery, and as Chair of Surgery.
- Rutka, James T.** New York Medical College, New York City, May 20, 2016. Kasoff Lecturer: 1) Recent advances in the management of brainstem tumours. 2) Scientific integrity: Why it matters.
- Rutka, James T.** University of Cincinnati, Cincinnati, Ohio, Jun 3, 2016. Mayfield Lecturer: 1) Recent Advances in the Management of Brain Stem Tumors. 2) Scientific Integrity: Why it Matters.
- Rutka, James T.** Ukraine Mission – Kyiv Neurosurgical Institute, Kyiv, Ukraine, Jun 21, 2016. Invited Speaker: 1) Neurosurgical management of encephaloceles in children. 2) Recent advances in the management of brainstem tumours. 3) Concussion from sports injuries: what is the optimum management. 4) Spinal fractures: Diagnosis and management. 5) How to publish a scientific manuscript in the neurosurgical literature.
- Rutka, James T.** Ukraine Mission – Lviv National Medical University, Lviv, Ukraine, Jun 23, 2016. Invited Speaker: 1) Acute neurosurgical management of head injuries. 2) Neurosurgical management of encephaloceles. 3) Recent advances in the management of brainstem tumours. 4) How to publish a scientific manuscript.
- Rutka, James T.** Ukraine Mission – Odessa National Medical University, Odessa, Ukraine, Jun 29, 2016. Invited Speaker: 1) Perinatal intraventricular haemorrhages: neurosurgical tactics. 2) Hydrocephalus in pediatric neurosurgery: reducing risk of shunt malfunction. 3) Epilepsy surgery: recent advances and future features. 4) Brain tumours: pediatric neurosurgical features. 5) Fetal neurosurgery: general approaches and special tactics.
- Taylor, Michael David.** Recent Insights into Pediatric Brain Tumor Biology, Heinrich-Heine University, Dusseldorf, Germany, Oct 1, 2015. Invited Lecturer: Macrophage Mimicry Mediates Medulloblastoma Metastases.
- Taylor, Michael David.** Pontificia Universidad Catolica de Chile, Santiago, Chile, Oct 19, 2015. Invited Lecturer: Medulloblastoma and Ependymoma in the Molecular Era: Insights for Neurosurgeons.
- Taylor, Michael David.** Mechanisms of Hedgehog Signaling in Development, Tissue Repair, and Cancer, Puerto Varas, Chile, Oct 25, 2015. Invited Lecturer: Heterogeneity Through Space and Time Among Sonic Hedgehog Medulloblastomas.
- Taylor, Michael David.** Canadian Cancer Research Conference, Montreal, Quebec, Nov 9 2015. Invited Lecturer: Heterogeneity Through Space and Time Dictates the Clinical Behavior of Childhood Brain Cancer.
- Taylor, Michael David.** Genome Canada Annual Meeting, Ottawa, Ontario, Dec 9, 2015. Invited Lecturer: Changing the diagnosis and treatment for children with brain cancer across Canada and around the world.
- Taylor, Michael David.** Huashan Hospital, Fudan University, Shanghai, China, Dec 15, 2015. Invited Lecturer: Molecular Classification of Medulloblastoma, and Biological Divergence at Recurrence.
- Taylor, Michael David.** Canadian Pediatric Neurosurgery Study Group Meeting, Whistler, British Columbia, Feb 19, 2016. Invited Lecturer: Heterogeneity Drives the Clinical Phenotype of Childhood Posterior Fossa Tumors.
- Taylor, Michael David.** “Genomics on the Hill” with Genome Canada, Ottawa, Ontario, Feb 22, 2016. Invited Lecturer: Why do Clinical Trials for Children with Cancer Keep Failing? Parliament Hill.
- Taylor, Michael David.** 4th Latin American Course in Pediatric Neurosurgery, Guarujá, Brazil, Mar 2, 2016. Invited Lecturer: 1) Molecular Biology of Childhood Posterior Fossa Tumors. 2) Case Presentations: Posterior Fossa Tumor. 3) Clinical Implications of Brain Tumor Molecular Biology.
- Taylor, Michael David.** Sohn Conference on Pediatric Oncology in the Post-Genomic World, New York, Mar 31, 2016. Invited Lecturer: Biology of Medulloblastoma Metastases.
- Taylor, Michael David.** Lady Davis Research Institute Distinguished Speaker Series, Montreal, Quebec, Apr 5, 2016. Invited Lecturer: Heterogeneity Through Space and Time Drive the Clinical Behaviour of Medulloblastoma.
- Taylor, Michael David.** International Conference on Brain Tumor Research and Therapy, Okinawa, Japan, Apr 13, 2016. Invited Lecturer: Medulloblastoma Metastasizes Through the Blood and is Mediated by CCL2.
- Taylor, Michael David.** Texas Children’s Hospital, Houston, Texas, Apr 21, 2016. Invited Lecturer: Heterogeneity Through Space and Time Drive the Clinical Behavior of Childhood Brain Tumors.

**Taylor, Michael David.** Memorial Sloan Kettering Brain Tumor Program, New York, Apr 25, 2016. Invited Lecturer: Heterogeneity Through Space and Time Drive the Clinical Behavior of Childhood Brain Tumors.

**Taylor, Michael David.** American Association of Neurological Surgeons Annual Meeting, Chicago, Illinois, May 2-3, 2016. Invited Lecturer: 1) Bittner Award Presentation: Heterogeneity Through Space and Time Drive the Clinical Behavior of Childhood Brain Tumors. 2) Breakfast Seminar: Molecular Classification of Ependymomas.

**Taylor, Michael David.** Pediatric Neuro-Oncology Rounds, Children's Hospital of Los Angeles, Los Angeles, California, May 4, 2016. Invited Lecturer: Heterogeneity Through Space and Time Drive the Clinical Behavior of Childhood Brain Tumors.

**Taylor, Michael David.** Stanford University Stem Cell Institute, Palo Alto, California, May 5, 2016. Invited Lecturer: 1) Dispelling the Myths of Modern Pediatric Neuro-Oncology: Lies my attending told me. 2) Heterogeneity Through Space and Time Drive the Clinical Behavior of Childhood Brain Tumors.

**Taylor, Michael David.** Brain Tumor Program, University of Minnesota, Minneapolis, Minnesota, May 17, 2016. Invited Lecturer: Heterogeneity Through Space and Time Drive the Clinical Behavior of Childhood Brain Tumors.

**Taylor, Michael David.** Pediatric Brain Tumor Foundation Annual Meeting, New Orleans, Louisiana, May 26, 2016. Invited Lecturer: 1) Disease Specific Tissue Banks: Global Ependymoma Network of Excellence. 2) Molecular Classification Informs the Current Treatment of Posterior Fossa Ependymomas of Childhood: A Report from the GENE Consortium.

**Taylor, Michael David.** Voynick Award Lecture, Yale University, New Haven, Connecticut, Jun 1, 2016. Invited Lecturer: Heterogeneity Through Space and Time Drive the Clinical Behavior of Childhood Brain Tumors.

**Taylor, Michael David.** Cancer Research UK Kids and Teens Scientific Workshop, London, United Kingdom, Jun 8, 2016. Invited Lecturer: Biological Complexity and Disease Heterogeneity.

**Taylor, Michael David.** International Society for Pediatric Neuro-Oncology, Liverpool, United Kingdom, Jun 11, 2016. Invited Lecturer: Pediatric Neurosurgery for Brain Tumors in the Molecular Era.

**Taylor, Michael David.** MISAM 2016, Montreal, Quebec, Jun 17, 2016. Invited Lecturer: Biology of Medulloblastoma Metastases.

## Research and Investigations

BTRC Pediatric Brain Tumour Bank and Database. *b.r.a.i.n.child. Rutka JT.* (\$25,000.00 CAD 2015 - 2016).

Cancer's sweet tooth: PINK1 negatively regulates glycolysis in GBM. *b.r.a.i.n.child. Rutka JT.* (\$25,000.00 CAD 2015 - 2016).

Discovery of novel chemotherapeutic agents active against metastatic medulloblastoma. *B.r.a.i.n.child. Taylor MD.* (\$24,883.00 CAD 2015).

Functional and genomic clonal analysis of human glioblastoma. *Canadian Institutes of Health Research (CIHR). Dirks PB.* (\$932,770.00 CAD Jul 2015 - Jun 2020).

Functional Genomic Screen to Identify Drivers of Human GBM. *Terry Fox Research Institute (TFRI). Dirks PB.* (\$1,328,820.00 CAD Jul 2015 - Jun 2020).

Functional Genomics in Human Cells for Drivers of Lethal Metastatic Human Cancers. *Genome Canada. Taylor MD, Khokha R.* (\$250,000.00 CAD 2016 - 2018).

Identification of Mediators of Chemoresistance in Recurrent Paediatric Medulloblastoma using Functional Genomics. *Worldwide Cancer Research. Taylor MD.* (\$385,000.00 CAD 2015).

Pediatric Focused Ultrasound Computational Data Center and Registry. *Focused Ultrasound Foundation. Drake JM, Napoli A, Geller J, Mahaney K, Laetsch T.* (\$100,000 US Aug 2015 - Jul 2016).

Pharmacologic and optogenetic dopamine-directed therapy of glioblastoma stem cells. *Canadian Cancer Society Research Institute (CCSRI). Dirks PB.* (\$198,516.00 CAD Jul 2015 - Jun 2017).

Post-infectious hydrocephalus in African infants: Causes, prevention and treatment. *National Institutes of Health (NIH) (USA). Kulkarni AV.* (\$562,000.00 USD Sept 2015 - Sept 2017).

Rapid Prototyping of Patient Specific Models, Dextrous Tools and Implants. *Canadian Foundation of Innovation. Drake JM, Patel R, Peters T, Salcudean T.* (\$1,800,000 Cdn Sept 2015-Sept 2019).

Targeted therapeutic disruption of the blood-brain-barrier in childhood brain stem cancers. *Curing Kids Cancer. Rutka JT.* (\$200,000.00 USD 2016).

Targeted therapy for diffuse intrinsic pontine glioma in childhood. *Canadian Institutes of Health Research (CIHR). Rutka JT.* (\$200,000.00 CAD 2015 - 2017).

Targeting Brain Tumour Stem Cell Epigenetic and Molecular Networks. *SU2C Canada Cancer Stem Cell (SU2C). Taylor MD, Dirks P, Weiss S.* (\$11,791,833.00 CAD Oct 2015 - Sept 2019).

Validation of Structural Variants in Medulloblastoma Using Long Read Sequencing Technology. *McLaughlin Center for Molecular Medicine - Toronto. Taylor MD.* (\$50,000.00 CAD 2015 - 2016).

Validation of Structural Variants in Medulloblastoma Using Long Read Sequencing Technology. *McLaughlin Center for Molecular Medicine - Toronto. Taylor MD.* (\$50,000.00 CAD 2016 - 2017).



## Honours and Awards

**Drake, James M:** Best Design Award for the Concentric Tube Tool for the DaVinci Research Kit. Hamlyn Symposium on Medical Robotics. 2015–2016.

**Rutka, James T:** Best Doctor's Canada. 2016.

**Rutka, James T:** Margolese National Brain Disorders Prize. University of British Columbia. 2015.

**Taylor, Michael David:** Michael S.Voynick Award in Neuro-Oncology. Yale University, Connecticut, New Haven. June 2016.

**Taylor, Michael David:** Zulch Prize in Basic Neurosurgical Research for 2016. Max Planck Society and Gertrud-Reemtsa Foundation. Germany. 2016.

**Taylor, Michael David:** Lister Prize in Surgery. Department of Surgery, University of Toronto, Faculty of Medicine. 2016.

**Taylor, Michael David:** Ronald L. Bitner Award. The American Association of Neurological Surgeons, Tumor Section. Illinois, Chicago. 2016.

## Division of Orthopaedics

<b>Dr. M. Camp</b>	Assistant Professor
<b>Dr. M. Gargan</b>	Associate Professor (Division Head)
<b>Dr. S. Hopyan</b>	Associate Professor
<b>Dr. A. Howard</b>	Professor
<b>Dr. S. Kelley</b>	Assistant Professor
<b>Dr. M.L. Murnaghan</b>	Assistant Professor
<b>Dr. U.G. Narayanan</b>	Associate Professor
<b>Dr. J.H. Wedge</b>	Professor
<b>Dr. R. Zeller</b>	Associate Professor

## Publications

**Bhatia D, Howard A, Rothman L, Loo J, Macarthur C.** Examining the impact of cycle lanes on cyclist-motor vehicle collisions in the city of Toronto. *Journal of Transport & Health*. 2016 Apr; on-line at <http://dx.doi.org/10.1016/j.jth.2016.04.002>

**Boutis K, Plint A, Stimec J, Miller E, Babyn P, Schuh S, Brison R, Lawton L, Narayanan UG.** Radiograph-Negative Lateral Ankle Injuries in Children: Occult Growth Plate Fracture or Sprain? *JAMA Pediatr*. 2016 Jan;170(1):e154114.

**Boutis K, von Keyserlingk C, Willan A, Narayanan UG, Brison R, Grootendorst P, Plint AC, Parker M, Goeree R.** Cost Consequence Analysis of Implementing the Low Risk Ankle Rule in Emergency Departments. *Ann Emerg Med*. 2015 Nov;66(5):455-463.e4.

**Camp MW, Gross AE, McKneally MF.** Patient views on financial relationships between surgeons and surgical device manufacturers. *Canadian Journal of Surgery*. 2015 Oct; 58(5): 323-329.

**Daniel J, Harrington J, Howard AW.** Osteogenesis Imperfecta and Metabolic Bone Disease. *Orthopaedic Knowledge Update: Pediatrics*. Chap 5; June 2016. American Academy of Orthopaedic Surgeons.

**Deimling S, Sotiropoulos C, Lau K, Chaudhry S, Sturgeon K, Kelley S, Narayanan U, Howard A, Hui CC, Hopyan S.** Tibial hemimelia associated with GLI3 truncation. *J Hum Genet*. 2016 May;61(5):443-6.

**Escott BG, Richmond SA, Willan AR, Ravi B, Howard AW.** The impact of pedestrian countdown signals on single and two vehicle motor vehicle collisions: a quasi-experimental study. *Int J Inj Contr Saf Promot*. 2016 May 4:1-6.

**Faden M, AlZahrani F, Mendoza-Londono R, Dupuis L, Hartley T, Kannu P, Raiman JA, Howard A, Qin W, Tetreault M, Xi JQ, Al-Thamer I, Maas RL, Boycott K, Alkuraya FS.** Identification of a Recognizable Progressive Skeletal Dysplasia Caused by RSPRY1 Mutations. *Am J Hum Genet*. 2015 Sep; 97(4):608-15.

**Findlay B, Switzer L, Narayanan U, Chen S, Fehlings D.** Investigating the impact of pain, age, Gross Motor Function Classification System, and sex on health-related quality of life in children with cerebral palsy. *Dev Med Child Neurol*. 2016 Mar;58(3):292-7.

**Galdstein AZ, Van Dijk S, Wasserman JD, Howard A.** Painful Hips and a Nodular Neck: Bilateral Slipped Capital Femoral Epiphysis Leading to the Diagnosis of Multiple Endocrine Neoplasia. *JBJS Case Connect*. 2015 Dec 09; 5 (4): e106 .

**Gardner ROE, Alshryda S, Kelley SP, Wedge JH.** Developmental Dysplasia of the Hip. Evidence Based Paediatric Orthopaedics: An Evidence Based Approach to Clinical Questions. Springer. United Kingdom. 2016. S Alshryda, JS Huntley, P Banaszkiwicz (eds).

**Gardner ROE, Bradley CS, Sharma OE, Feng L, Shin M, Kelley SP, Wedge JH.** Long-term Outcome Following Medial Open Reduction in Developmental Dysplasia of the Hip: A Retrospective Cohort Study. *J Child Orthop*. 2016 Jun; 10(3): 179-184.

- Ghadakzadeh S, Kannu P, Whetstone H, Howard A, Alman BA.**  $\beta$ -Catenin modulation in neurofibromatosis type 1 bone repair: therapeutic implications. *FASEB J.* 2016 Jun 15.
- Gray MJ, Kannu P, Sharma S, Neyt C, Zhang D, Paria N, Daniel PB, Whetstone H, Sprenger HG, Hammerschmidt P, Weng A, Dupuis L, Jobling R, Mendoza-Londono R, Dray M, Su P, Wilson MJ, Kapur RP, McCarthy EF, Alman BA, Howard AW, Somers GR, Marshall CR, Mannersx S, Flanagan AM, Rathjen KE, Karol LA, Crawford H, Markie DM, Rios JJ, Wise CA, Robertson SP.** Mutations Preventing Regulated Exon Skipping in MET Cause Osteofibrous Dysplasia. *Am J Hum Genet.* 2015 Dec 3;97(6):837-47.
- Hesketh K, Sankar W, Joseph B, Narayanan U, Mulpuri K.** Inter-observer and intra-observer reliability in the radiographic diagnosis of avascular necrosis of the femoral head following reconstructive hip surgery in children with cerebral palsy. *J Child Orthop.* 2016 Apr;10(2):143-7.
- Holton CS, Kelley SP.** The Response of Children to Trauma. *Orthopaedics and Trauma.* 2015 Dec;29(6):337-349.
- Howard A, Macarthur C, Buliung R, To T, Macpherson A, Rothman L.** Association between parent perception of traffic danger, the built environment and walking to school. *Journal of Transport & Health.* 2015 Sep;2(3):327-335.
- Howard AW, Kenaway M.** Fractures of the Proximal Humerus. *Fracture Management in Children.* 2015;241-255.
- Kelley SP, Wedge JH.** Innominate Osteotomy of Salter. 2<sup>nd</sup> ed. 2016. *Operative Techniques in Orthopaedic Surgery.* Wolters Kluwer. WN Sankar, JM Flynn, SW Wiesel, eds. Chap. 2; pp:888-893.
- Koelink E, Schuh S, Howard A, Stimec J, Barra L, Boutis K.** Primary Care Physician Follow-up of Distal Radius Buckle Fractures. *Pediatrics.* 2016 Jan;137(1). doi: 10.1542/peds.2015-2262.2016.
- Moktar J, Bradley CS, Maxwell A, Wedge JH, Kelley SP, Murnaghan ML.** Skill acquisition and retention following simulation-based training in Pavlik harness application. *J Bone Joint Surg Am.* 2016 May 18;98(10):866-870.
- Mulpuri K, Andrade J, Schaeffer EK, Sankar W, Williams N, Matheny T, Mubarak SJ, Cundy PJ, Price CT, IHDI Study Group.** What Risk Factors and Characteristics are Associated with Late-presenting Dislocations of the hip in infants? *Clin Orthop Relat Res.* 2016 May;474(5):1131-7.
- Mulpuri K, Schaeffer EK, Kelley SP, Castañeda P, Clarke NM, Herrera-Soto JA, Upasani V, Narayanan UG, Price CT, IHDI Study Group.** What Is the Impact of Center Variability in a Multicenter International Prospective Observational Study on Developmental Dysplasia of the Hip? *Clin Orthop Relat Res.* 2016 May;474(5):1138-45.
- Mutabdzic D, Mylopoulos M, Murnaghan ML, Patel P, Zilbert N, Seemann N, Regehr G, Moulton CA.** Coaching Surgeons: Is culture Limiting Our Ability to Improve? *Ann Surg.* 2015 Aug;262(2):213-6.
- Orrell K, Yankanah R, Heon E.** A small grant funding program to promote innovation at an academic research hospital. *Can J Sug.* 2015 Oct;4:294-5.
- Redouane B, Cohen E, Stephens D, Keilty K, Mouzaki M, Narayanan U, Moraes T, Amin R.** Parental Perceptions of Quality of Life in Children on Long-Term Ventilation at Home as Compared to Enterostomy Tubes. *PLoS One.* 2016 Feb 25;11(2):e0149999.
- Rothman L, Macpherson A, Buliung R, Macarthur C, To T, Larsen K, Howard A.** Installation of speed humps and pedestrian-motor vehicle collisions in Toronto, Canada: a quasi-experimental study. *BMC Public Health.* 2015 Aug;15(1):774.
- Rothman L, Perry D, Buliung R, Macarthur C, To T, Macpherson A, Larsen K, Howard A.** Do school crossing guards make crossing roads safer? A quasi-experimental study of pedestrian-motor vehicle collisions in Toronto, Canada. *BMC Public Health.* 2015 Jul;15(1):1:732.
- Stenhouse G, Kaiser S, Kelley SP, Stimec J.** Ischiofemoral Impingement in Children: Imaging with Clinical Correlation. *AJR Am J Roentgenol.* 2016 Feb;206(2):426-30.
- Stinson JN, Jibb LA, Nguyen C, Nathan PC, Maloney AM, Dupuis LL, Gerstle JT, Hopyan S, Alman BA, Strahlendorf C, Portwine C, Johnston DL.** Construct validity and reliability of a real-time multidimensional smartphone app to assess pain in children and adolescents with cancer. *Pain.* 2015 Dec;156(12):2607-15.
- Tjong VK, Devitt BM, Murnaghan ML.** A Qualitative Investigation of Return to Sport After Arthroscopic Bankart Repair Beyond Stability. *Am J Sports Med.* 2015 Aug;43(8):2005-11.
- Wedge JH.** The rise of structural osteoarthritis of the hip. Commentary on an article by William Z. Morris et al: 'Capital femoral growth plate extension predicts cam morphotology in the longitudinal radiographic study'. *J Bone Joint Surg Am.* 2016 May 18;98(10):e43.
- Zilbert NR, Murnaghan ML, Gallinger S.** Taking a Chance or Playing It Safe: Reframing Risk Assessment Within the Surgeon's Comfort Zone. *Ann Surg.* 2015 Aug;262(2):253-9.

## Invited Visits

- Camp, Mark.** Ontario Orthopaedic Association 38th Annual General Meeting, Toronto, Ontario, Oct 30, 2015. Invited Lecturer: Ethics with Industry: What Surgeons Should Know.
- Camp, Mark.** Ontario Association of Children's Rehabilitation Services, Toronto, Ontario, Nov 3, 2015. Invited Speaker: Hip Surveillance for Children with Cerebral Palsy: Why Is This Important, Who's Already Doing It, and How can We Do This in Ontario?
- Camp, Mark.** Canada Medical Education, Mississauga, Ontario, Jan 13, 2016. 1) Invited Lecturer: Upper Extremity Paediatric Trauma. 2) Invited Faculty: Orthopaedic Resident Review in Paediatrics Course.
- Camp, Mark.** Canadian Bioethics Society Annual Meeting, Toronto, Ontario, May 25, 2016. Workshop Director: Pre-conference Surgical Ethics Workshop Developed, organized and created content for half day, continuing professional development workshop focusing on surgical ethics.



- Hopyan, Sevan.** 74th Annual Meeting, Society for Developmental Biology, Snowbird, Utah, Jul 9, 2015. Invited Speaker: Iroquois 3/5 regulate cell division and morphogenetic cell movements.
- Hopyan, Sevan.** Wallingford Laboratory Retreat, Austin, Texas, Aug 14, 2015. Invited Speaker: Morphogenesis in 4D.
- Hopyan, Sevan.** Musculoskeletal Tumor Society, Orlando, Florida, Oct 8, 2015. Invited Speaker: Long-term outcomes following lower extremity sarcoma reconstruction with vascularised fibula flaps in children.
- Hopyan, Sevan.** Institut de recherches cliniques de Montréal Lecture Series, Montreal, Quebec, Nov 9, 2015. Invited Speaker: Forces that move cells in the limb bud and branchial arch.
- Hopyan S.** Musculoskeletal Tumor Society, Florida, Orlando, Oct 8, 2015. Invited Speaker: Development of a paediatric Toronto extremity salvage score.
- Howard, Andrew.** Ontario Provincial Coroner's Conference, Toronto, Ontario, Oct 16, 2016. Keynote Speaker: Fatal Child Injuries in the Real World.
- Howard, Andrew.** Department of Kinesiology and Paediatrics, University of Calgary, Calgary, Alberta, Oct 21, 2015. Invited Speaker: GIS and quasi experimental designs in child road traffic injury.
- Howard, Andrew.** Alberta Children's Hospital, Calgary, Alberta, Oct 22, 2015. Gordon-Townsend Visiting Professor: Transportation Health for Children: Beyond Road Traffic Injury Prevention.
- Howard, Andrew.** CIHR Canada, Ottawa, Ontario, Oct 27, 2015. Invited Speaker: CIHR STAIR End of Grant Workshop.
- Kelley, Simon.** Advanced TSF Instructional Course, Smith and Nephew, Memphis, Tennessee, Sept 2015. Chair: 1) Paediatric Perspectives using the Taylor Spatial Frame. 2) Double Stack Taylor Spatial Frames. 3) How to Lengthen a Congenitally Short Limb. 4) The Modular Rail System for Congenital Femoral Deficiency.
- Kelley, Simon.** Global TSF Masters Forum, Smith and Nephew, London, United Kingdom, Oct 2015. Chair: 1) Lengthening Arthrodesis using the Taylor Spatial Frame. 2) Limb Deformity Correction in Ollier's Disease.
- Kelley, Simon.** Pediatric Orthopaedic Society of North America (POSNA) Annual Scientific Meeting, Indianapolis, Indiana, Apr 2016. Invited Lecturer: Articulated Hip Distraction - The Surgical Technique.
- Kelley, Simon.** Canadian Orthopaedic Association (COA) Annual Meeting, Quebec City, Quebec, Jun 2016. Founder's Medal Lecturer: 1) FGFR3 Regulates Fracture Repair by Controlling the Balance Between Intramembranous and Endochondral Bone Formation. 2) Scientific Symposium: The Future of Osteochondral Regeneration, Alternative Cell Therapies.
- Kelley, Simon.** Essentials of TSF Instructional Course, Smith and Nephew, Charleston, South Carolina, Jun 2016. Chair: 1) The Biomechanics of Circular Frames and Stable Fixation. 2) Mounting an Orthogonal Ring on the Taylor Spatial Frame.
- Murnaghan, Michael Lucas.** Foundation Radio, Canada, 2015. Invited Speaker: Athletic Injuries.
- Narayanan, Unni G.** 29th St. Justine Paediatric Orthopaedic Review Course, Montreal, Quebec, Mar 9, 2016. Invited Speaker: 1) Lower & Upper Extremity Deformities. 2) LLD: Guidelines for Assessing and Planning Treatment. 3) The Dilemma of the Congenital Short Limb.
- Narayanan, Unni G.** 2016 AACPDM Board of Directors, Illinois, Mar 11, 2016.
- Wedge, John Hall.** XII Congresso Brasileiro de Ortopedia Pediatrica, Bel Horizonte, São Paulo, Brazil, May 27-28, 2016. Visiting Professor: 1) Osteotomies for hip dysplasia after walking age. 2) Neuromuscular hip displacement (dysplasia). 3) An approach to management of Legg Perthes' disease.

## Research and Investigations

- A Novel hiPSC Model to Investigate the Role of FGFR3 in Osteoblast Differentiation. *The Bone Health Centre, The Hospital for Sick Children. Kelley S, Alman B, Kannu P.* (\$10,000.00 CAD Jul 2015 – Jul 2016).
- Elucidating the role of nFATc1 in a disorder of osteogenesis. *The Bone Health Centre, The Hospital for Sick Children. Kannu P, Kelley S, Howard A, Alman B.* (\$25,000.00 CAD Jul 2015 – Jul 2016).
- Getting to School: An Investigation of Household Experiences with Disability in Childhood. *The Hospital for Sick Children, Norman Saunders Complex Care Initiative Grant. Howard A, Buliung R, Ross T.* (\$17,000.00 CAD 2016).
- IMPACCT: Infrastructure for Musculoskeletal Paediatric Acute Care Clinical Trials. *POSNA. Howard A, Janicki J, Wright J.* (\$30,000.00 USD Jan 2016 – Jan 2017).
- Improving the informed consent process in paediatric trauma using an eConsent tool. *The Hospital for Sick Children, Mary Jo Innovation Fund. Camp M.* (\$10,000.00 CAD Apr 2016 -).
- Investigating the Biological Enhancement of Fracture Repair and Skeletal Regeneration. *Private Donation. Baldassarra Family. Kelley S.* (\$50,000.00 CAD Jul 2015 -).
- Novel method for rapid fracture analgesia in the emergency department: Hematoma block Ultrasound Guided Study- the HUGS pilot. *The Hospital for Sick Children. Camp M, Tessaro M, Ben-Yakov M, Fischer J, Bhatt M.* (\$2,900.00 CAD May 2016/05 -).
- The Built Environment and Active Transportation Safety in Children and Youth. *Canadian Institutes of Health Research (CIHR). Hagel B, Fuselli P, Howard A, Cloutier M, Emery C, Kennedy J, Ma T, Macarthur C, Macpherson A, McGowan J, McCormack G, Nettel-Aguirre A, Owens L, Pike I, Rowe B, Torres J, Voaklander D, Winters M.* (\$49,973.00 Jan – Dec 2016)

Validation of the Gait Outcomes Assessment List Questionnaire. *Pediatric Orthopaedic Society of North America (POSNA)*. Narayanan U, Fehlings D, Wright V, Dermott J, Nordbye-Nielsen K. (\$30,000.00 USD 2015 – 2016).

## Honours and Awards

**Kelley, Simon:** Best Basic Science Paper. International Limb Lengthening and Reconstruction Society (ILLRS). Miami, Florida, United States. Nov 2015 – 2016.

**Kelley, Simon:** Young Investigator Award American Society for Bone and Mineral Research (ASBMR). Seattle, Washington, United States. Nov 2015– 2016.

**Kelley, Simon:** Founder's Medal, Research Award, Canadian Orthopaedic Research Society. 2015 – 2016.

## Division of Plastic and Reconstructive Surgery

Dr. G.H. Borschel	Associate Professor
Dr. H. Clarke	Professor
Dr. K. Davidge	Assistant Professor
Dr. J.S. Fish	Associate Professor
Dr. D. Fisher	Associate Professor
Dr. C. Forrest	Professor (Division Head)
Dr. J. Phillips	Associate Professor
Dr. K. W-Y Wong	Assistant Professor
Dr. R. Zuker	Professor

## Publications

**Antonarakis GS, Fisher DM.** Permanent tooth agenesis and maxillary hypoplasia in patients with unilateral cleft lip and palate. *Plast Reconstr Surg*. 2015 Nov;136(5):648e-56e.

**Antonarakis GS, Fisher DM.** Presurgical unilateral cleft lip anthropometrics and the presence of dental anomalies. *The Cleft Palate-Craniofacial Journal*. 2015 Jul; 52(4):395-404.

**Bade SA, Beserminji M, Zuker RM.** Intravascular Pyogenic Granuloma in a Child. *Plast Surg Case Studies Pulsus Group*. 2015 Oct; 1(2): 41-42.

**Borschel GH, Catapano J, Willand MP, Zhang JJ, Scholl D, Gordon T.** Retrograde labeling of regenerating motor and sensory neurons using silicone caps. *Journal of Neuroscience Methods*. 2016 Feb; 259:122-8.

**Borschel GH, Hendry JM, Alvarez-Veronesi MC, Snyder-Warwick A, Gordon T.** Side-To-Side Nerve Bridges Support Donor Axon Regeneration Into Chronically Denervated Nerves and Are Associated With Characteristic Changes in Schwann Cell Phenotype. *Neurosurgery*. 2015 Nov; 77(5):803-13.

**Borschel GH, Hynes SL, Harvey I, Thomas K, Copeland J.** CT angiography-guided single-stage release of adjacent webspaces in non-Apert syndactyly. *Journal Hand Surgery*. 2015 Jul; 40(6):625-32.

**Borschel GH, Sharma PR, Zuker RM.** Perspectives in the reconstruction of paediatric facial paralysis. *Current Opinions in Otolaryngology Head Neck Surgery*. 2015 Dec; 23(6):470-9.

**Borschel GH, Tajdaran K, Gordon T, Wood MD, Shoichet MS.** A glial cell line-derived neurotrophic factor delivery system enhances nerve regeneration across acellular nerve allografts. *Acta Biomaterial*. 2016 Jan; 29:62-70.

**Borschel GH, Tajdaran K, Gordon T, Wood MD, Shoichet MS.** An engineered biocompatible drug delivery system enhances nerve regeneration after delayed repair. *J Biomed Mater Res A*. 2016 Feb; 104(2):367-76.

**Borschel GH.** Facial Paralysis: A Comprehensive Rehabilitative Approach. *Plastic Reconstructive Surgery*. 2015 Sept; 136(3):625.

**Catapano J, Elbaz U, Bains R, Zuker RM, Ali A, Borschel GH.** Corneal Neurotization: A minimally invasive surgical approach to treat neurotrophic keratopathy. *Plast Surg* 2015; 23(2):126.

**Catapano J, Scholl D, Ho E, Zuker RM, Borschel GH.** Restoration of Trigeminal Cutaneous Sensation with Cross-Face Sural Nerve Grafts: A Novel Approach to Facial Sensory Rehabilitation. *Plastic Reconstructive Surgery*. 2015 Sept; 136(3): 568-71.

**Catt CJ, Hamilton GM, Fish J, Mireskandari K, Ali A.** Ocular manifestation of Stevens-Johnson syndrome and toxic epidermal necrolysis in children. *Am J Ophthalmol*. 2016 Jun;166:68-75.

**Clarke H, Tse R, Malessy M, Kozin S.** IFSSH Scientific Committee on Neonatal Brachial Plexus Palsy. 2015;5(2): 16-24.



- Davidge KM, Clarke HM, Borschel GH.** Nerve transfers in birth related brachial plexus injuries: Where do we stand? *Hand Clinics*. 2016 May; 32(2): 175-190.
- Davidge KM, Hendry JM, Zuker R, Borschel G.** *Facial Nerve Disorders and Diseases: Diagnosis and Management*. 1st Edition, 2015. Thieme Publishers.
- Dodiuk-Gad RP, Olteanu C, Jeschke MG, Cartotto R, Fish J, Shear NH.** Treatment of toxic epidermal necrolysis in North America. *Journal of American Academy of Dermatology*. 2015 Nov; 73(5): 876-77.
- Fisher DM.** Unilateral cleft lip repair (chapter 19) 2<sup>nd</sup> ed. 2016. *Principles and Practice of Pediatric Plastic Surgery*. Quality Medical Publishing/Taylor & Francis/CRC Press. Bauer BS, Zuker RM, Bentz ML (eds).
- Fisher DM.** Unilateral cleft lip repair: anatomic subunit approximation technique. 2nd ed. *Comprehensive Cleft Care*. CRC Press, Taylor & Francis Group. United States, Florida, Boca Raton. Losee JE, Kirschner RE (eds). 2015; 857-873.
- Gordon T, Placheta E, Borschel GH.** Delayed peripheral nerve repair: a surgical method to 'protect' atrophic Schwann cells and, in turn, promote nerve regeneration. *Neural Regen Res*. 2015 Oct; 10(10): 1540-1544.
- Harvey I, Clarke HM.** Obstetric brachial plexus palsy. (Boyd JB, Jones NF, eds). McGraw-Hill Education, New York 2015: pp 958-974. *Operative Microsurgery*.
- Kattan AE, Tsoi K, Stubenitsky BM, Curtis CG, Gerstle JT, Clarke HM.** Retroperitoneal femoral nerve reconstruction in the pediatric population. *Plastic Surgery Case Studies*. 2016; 2 (2): 23-26.
- La Scala G, Fisher DM.** A modified v-y chondromucosal composite flap for correction of secondary cleft nasal deformity. *Plastic and Reconstructive Surgery*. 2015; 135(2): 457e.
- McClelland B, McCabe S, Haykal S, Borschel G, Zuker R, Levin S.** Proximal Forearm Transplantation for Below Elbow Amputations: Rationale and Surgical Technique. *Vascularized Composite Allotransplantation*. 2015 Jul; 2(1): 26-28.
- Nguyen P, Caro C, Smith D, Tompson B, Forrest C, Phillips J.** Long-term Orthognathic Surgical Outcomes in Treacher Collins Patients. *J Plast Reconstr Aesthet Surg*. 2016 Mar; 69(3): 402-8.
- Plant MA, Fish JS.** Resident use of the Internet, e-mail, and person electronics in the care of surgical patients. *Teach Learn Med*. 2015; 27(2): 215-23.
- Podolsky DJ, Fisher DM, Wong KW, Drake JM, Forrest CR.** Development of a robotic approach to cleft palate repair. 2015; 23(2) Summer: 127.
- Swan MC, Clarke HM.** Microsurgery for obstetrical brachial plexus palsy (Abzug JM, Kozin S, Zlotolow DA, eds). Springer Science+Business Media, New York 2015: pp. 607-631. *The Pediatric Upper Extremity*.
- Tajdaran K, Shoichet MS, Gordon T, Borschel GH.** A novel polymeric drug delivery system for localized and sustained release of tacrolimus (FK506). *Biotechnol Bioeng*. 2015 Sept; 112(9): 1948-53.
- Touil L, Fisher DM, Fattah AY.** Assessment of long term donor-site morbidity after harvesting the latissimus dorsi flap for neonatal myelomeningocele repair. *J Plast Reconstr Aesthet Surg*. 2015; 67(8): 1070-1075.
- Willand MP, Chiang CD, Zhang JJ, Kemp SWP, Borschel GH, Gordon T.** Daily Electrical Muscle Stimulation Enhances Functional Recovery Following Nerve Transection and Repair in Rats. *Neurorehabilitation and Neural Repair*. 2015 Jul; 29(7): 690-700.
- Willand MP, Nguyen MA, Borschel GH, Gordon T.** Electrical Stimulation to Promote Peripheral Nerve Regeneration. *Neurorehabil Neural Repair*. 2016 Jun; 30(5): 490-6.
- Wong KWY, Klaiman PG, Forrest CR.** Posterior pharyngeal flaps. 2<sup>nd</sup> ed. 2015. *Comprehensive Cleft Care*. United Kingdom. Losee J, Kirschner RE, Editors.
- Zuker RM.** Facial Paralysis and the Role of Free Muscle Transplantation. *Annales de Chirurgie Plastique Esthetique*. 2015 Oct; 60(5): 420 - 429.

## Invited Visits

- Borschel, Gregory H.** Beijing, China, Aug 2015. Invited Speaker: Novel Approaches to the Study of Speech and Facial Motor Control using MEG.
- Borschel, Gregory H.** St. Andrew's Centre for Plastic Surgery and Burns, Essex, United Kingdom, Nov 7, 2015. Keynote Speaker: 1) Corneal reinnervation and cutting edge research developments in facial reanimation. 2) Post surgical problems and how to address them. 3) Paediatric Facial Reanimation.
- Clarke, Howard.** Orthopaedics Grand Rounds, University of Alabama at Birmingham, Birmingham, Alabama, Apr 7, 2016. Speaker: Obstetrical brachial plexus palsy and its sequelae.
- Clarke, Howard.** Department of Paediatrics Grand Rounds, Royal Victoria Regional Health Centre, Barrie, Ontario, Apr 28, 2016. Speaker: Obstetrical brachial plexus palsy.
- Fish, Joel Steven.** Toronto Professional Firefighters - Prevention Division, Toronto, Ontario, Sept 16, 2015. Invited Speaker: Learn Not to Burn.
- Fish, Joel Steven.** American Burn Association, Las Vegas, Nevada, May 2, 2016. Speaker: SCAR-Q KIDS: Developing a Patient-Reported Outcome Instrument for the Traumatic Burn and Surgical Scars in the Pediatric Population.

- Fisher, David.** Smile Train/STARS (Smile Train Anesthesiologists and Reconstructive Surgeons) Conference, Chennai, India, Sept 3, 2015. Invited Lecturer: 1) Unilateral cleft lip repair: an anatomical subunit approximation technique.
- Fisher, David.** Stanford School of Medicine, Stanford, California, Mar 1, 2016. Visiting Professor: Unilateral cleft lip repair, history and current practice.
- Fisher, David.** Lebanese Society of Plastic, Reconstructive & Aesthetic Surgery (LSPRAS), Beirut, Lebanon, Apr 28, 2016. 1) Invited Lecturer: Management of cleft palate. 2) Moderator: Maxillofacial Head & Neck Surgery Program. 3) Invited Lecturer: Management of cleft lip.
- Forrest, Christopher.** ASCFS/ASMS Boot Camp: Essential Training for Craniofacial Fellows, Barrows Neurological Institute, Phoenix, Arizona, Aug 7-8, 2015. Invited Lecturer: 1) LeFort I. 2) Craniosynostosis and cranial vault remodeling.
- Forrest, Christopher.** The 16th Congress of the International Society of Craniofacial Surgery, Tokyo, Japan, Sept 2015. Presenter: The application of surgical robotics in cleft and craniofacial care.
- Wong, Karen Wing-Yin:** Hamlyn Symposium on Medical Robotics, London, United Kingdom, Sept 23, 2015. Presenter: Development of a High-Fidelity Pediatric Cleft Palate Phantom and Feasibility Testing Using a da Vinci Surgical System.
- Zuker, Ronald.** 60th National French Congress of Plastic Surgery, Paris, France, Nov 20-21, 2015. 1) Invited Speaker: Workshop on Muscle Transplantation. 2) Keynote Speaker: The Paul Tessier Lecture - Collaboration: Working Together to Achieve Better Outcomes. 3) Invited Lecturer: Free Muscle Transplantation for Facial Paralysis Reconstruction.
- Zuker, Ronald.** Magen Lacholeh, Jerusalem, Israel, Nov 23, 2015. Visiting Professor: Complex Case Reviews and Discussions.
- Zuker, Ronald.** Ichilov Hospital, Tel Aviv University, Tel Aviv, Israel, Nov 24, 2015. Invited Speaker: 1) Update on Pediatric Plastic Surgery at SickKids. 2) What's New in Unilateral, Bilateral Facial Paralysis Reconstruction.
- Zuker, Ronald.** Duke University, Durham, North Carolina, Dec 16, 2015. 1) Invited Lecturer: Conjoined Twins: Classification, Surgical Separation and Lessons Learned. 2) Visiting Professor: Facial Paralysis in Children: An approach to unilateral and bilateral reconstruction. 3) Visiting Professor: Restoration of Corneal Sensation: A Collaborative Approach.
- Zuker, Ronald.** American Society for Peripheral Nerve, Scottsdale, Arizona, Jan 7, 2016. Panel Moderator: Surgeon as Perpetual Learner - Patient cases I have learned the most from.
- Zuker, Ronald.** American Society for Reconstructive Microsurgery, Scottsdale, Arizona, Jan 18-19, 2016. Panelist: 1) Pediatric Microsurgery: 2) Different Generations Facial Palsy - Different Generations. 3) Free Functional Muscle Transfer Face, Upper Extremity.
- Zuker, Ronald.** Transforming Faces Annual General Meeting, Mississauga, Ontario, May 30 - Jun 1, 2016. 1) Invited Speaker: The Management of Cleft Lip and Plate. 2) Presenter: Progress in Northern Thailand, Myanmar and Laos Project.
- Zuker, Ronald.** Canadian Society Surgery of the Hand, Ottawa, Ontario, Jun 14, 2016. Invited Speaker: Tips on Success with Vascularized Muscle Transfers.

## Research and Investigations

- Development of a Decision Aid for Adolescents with Obstetrical Brachial Plexus Palsy: Making choices regarding treatment for a functionally limiting and socially-stigmatizing elbow flexion contracture. *The Hospital for Sick Children. Borschel GH, Ho E.* (\$12,605.00 CAD Sept 2015 - ).
- Development of a robotic approach to cleft palate repair. *Plastic Surgery Foundation. Podolsky D, Fisher DM, Wong KWY, Drake J, Looi T, Forrest CR.* (\$10,000.00 2015).
- Development of the FACE-Q Kids PRO Instrument. *Plastic Surgery Foundation. Klassen A, Wong KWY, Forrest CR, Pusic AL, Borschel G, Davidge KM, Zuker RM, Giglia L.* (\$49,978.00 2015).
- Moebius Syndrome Patient Registry. *Moebius Syndrome Foundation. Borschel GH, Zuker R, Ho E.* (\$131,000.00 USD Nov 2015 - Nov 2019).



## Division of Urology

Dr. D.J. Bagli	Professor
Dr. W.A. Farhat	Professor
Dr. M.A. Koyle	Professor (Division Head)
Dr. A.J. Lorenzo	Associate Professor

### Publications

- Bator EX, Gleason JM, Lorenzo AJ, Kanaroglou N, Farhat WA, Bagli DJ, Koyle MA.** The burden of attending a pediatric surgical clinic and family preferences toward telemedicine. *J Pediatr Surg.* 2015 Oct;50(10):1776-82.
- Braga L, Easterbrook B, Jegatheeswaran K, Lorenzo AJ.** From Research Question to Conducting A Randomized Controlled Trial on Continuous Antibiotic Prophylaxis in Prenatal Hydronephrosis: A Rational Stepwise Process. *Front Pediatr.* 2016; 4: 27.
- Braga LH, D’Cruz J, Rickard M, Jegatheeswaran K, Lorenzo AJ.** The Fate of Primary Nonrefluxing Megaureter: A Prospective Outcome Analysis of the Rate of Urinary Tract Infections, Surgical Indications and Time to Resolution. *J Urol.* 2016 Apr;195(4 Pt 2):1300-5.
- Braga LH, Easterbrook B, Lorenzo AJ.** Commentary to “Barriers to participation in surgical randomized controlled trials in pediatric urology: A qualitative study of key stakeholder perspectives”. *J Pediatr Urol.* 2016 Feb 18. pii: S1477-5131(16)00044-9.
- Casale P, Farhat WA.** Pediatric Laparoscopic and Robotic Pyeloplasty. 2016; pp. 866-72, 8th Edition. Glenn’s Urologic Surgery. Wolters Kluwer. United States. Goldstein M, Sandip MP, Richie JP, Rovner ES, Rushton HG, Savage SJ, Studer UE, Virasoro R. (eds).
- Chang SJ, Van Laecke E, Bauer SB, von Gontard A, Bagli D, Bower WF, Renson C, Kawachi A, Yang SS.** Treatment of daytime urinary incontinence: A standardization document from the International Children’s Continence Society. *NeuroUrol Urodyn.* 2015 Oct 16. doi: 10.1002/nau.22911.
- Dos Santos J, Lopes RI, Veloso AO, Harvey E, Farhat WA, Papanikolaou F.** Outcome Analysis of Asymptomatic Lower Pole Stones in Children. *J Urol.* 2016 Apr; 195(4):1289-93.
- Eswara JR, Kielb S, Koyle MA, Wood D, Wood HM.** The Recommendations of the 2015 American Urological Association Working Group on Genitourinary Congenitalism. *Urology.* 2015 Nov; 88: 1-7.
- Fantus S, Gupta AA, Lorenzo AJ, Brownstone D, Maloney AM, Shaul RZ.** Addressing Fertility Preservation for Lesbian, Gay, and Bisexual Adolescents and Young Adults with Cancer. *J Adolesc Young Adult Oncol.* 2015 Dec;4(4):152-6.
- Farhat WA, Drake J.** Preface: Bioengineering for Surgery: The Critical Engineer Surgeon Interface. 1st Edition, 2015.
- Fernandez N, Lorenzo A, Bagli D, Zarante I.** Altitude as a risk factor for the development of hypospadias. Geographical cluster distribution analysis in South America. *J Pediatr Urol.* 2016 Apr 22. pii: S1477-5131(16)30025-0.
- Islam SS, Mokhtari RB, Akbari P, Hatina J, Yeger H, Farhat WA.** Simultaneous Targeting of Bladder Tumor Growth, Survival, and Epithelial-to-Mesenchymal Transition with a Novel Therapeutic Combination of Acetazolamide (AZ) and Sulforaphane (SFN). *Target Oncol.* 2016 Apr; 11(2):209-27.
- Kanaroglou N, To T, Zhu J, Braga LH, Wehbi E, Hajjha M, Bagli DJ, Salle JP, Koyle MA, Lorenzo AJ.** Inappropriate Use of Ultrasound in Management of Pediatric Cryptorchidism. *Pediatrics.* 2015 Sep;136(3):479-86.
- Kaths JM, Echeverri J, Goldaracena N, Louis KS, Yip P, John R, Mucsi I, Ghanekar A, Bagli D, Selzner M, Robinson LA.** Heterotopic Renal Autotransplantation in a Porcine Model: A Step-by-Step Protocol. *J Vis Exp.* 2016 Feb 21;(108). doi: 10.3791/53765.
- Knight S, Lorenzo AJ, Maloney A, Srikanthan A, Donen R, Greenblatt E, Gupta A.** An Approach to Fertility Preservation in Prepubertal and Postpubertal Females; A Critical Review of Current Literature. 2015 Wiley Periodicals, Inc. United States, New Jersey.
- Lee LC, Kanaroglou N, Gleason JM, Pippi Salle JL, Bagli DJ, Koyle MA, Lorenzo AJ.** Impact of drainage technique on pediatric pyeloplasty: Comparative analysis of externalized uretero-pyelostomy versus double-J internal stents. *Can Urol Assoc J.* 2015 Jul-Aug;9(7-8):E453-7.
- Lopes RI, Lorenzo AJ.** Recent Advances in Urinary Tract Reconstruction for Neuropathic Bladder in Children. *F1000Research.* 2016 Feb 22;5.
- Lorenzo AJ, Braga LH.** Decisions, Decisions, Decisions. *J Urol.* 2016 Mar;195(3):551-3.
- Lorenzo AJ, Houry AE.** Ectopic Ureters. *Pediatric Urology for the Primary Care Physician.* The Humana Press Inc. New Jersey. Rabinowitz R, Hulbert WC, Mevorach RA. 2015.
- Lorenzo AJ, Koyle MA, Salle P.** Tumors of the Lower Genitourinary Tract In: *Pediatric Urology for the Primary Care Physician* (Rabinowitz R, Hulbert WC, Mevorach RA, eds). The Humana Press Inc., Totowa, New Jersey. *Pediatric Urology for the Primary Care Physician.* 2015.
- Lorenzo AJ, Romao RL.** The Evolving Role of Minimally Invasive Surgery in Pediatric and Adolescent Urologic Oncology. *Urology.* 2016 May;91:180-9.
- Lorenzo AJ, Sowerby RJ, Kanaroglou N.** Preliminary report on a new surgical technique for the management of bothersome scrotomegaly in selected adolescent males. *J Pediatr Urol.* 2015 Oct;11(5):295-8.

- Lorenzo, AJ, Koyle, M.** Management of Defecation Disorders. 11th Edition, 2016. Chapter 4, 3317-3329. Campbell – Walsh. Urology. Elsevier, United States, Pennsylvania, Philadelphia. Alan J. Wein, Louis R. Kavoussi, Alan W. Partin, Craig A. Peters (eds).
- Martins G, Minuk J, Varghese A, Dave S, Williams K, Farhat WA.** Non-biological determinants of paediatric bladder bowel dysfunction: A pilot study. *J Pediatr Urol.* 2016 Apr;12(2):109.e1-6.
- Noman AS, Uddin M, Rahman MZ, Nayeem MJ, Alam SS, Khatun Z, Wahiduzzaman M, Sultana A, Rahman ML, Ali MY, Barua D, Ahmed I, Islam MS, Aboussekhra A, Yeager H, Farhat WA, Islam SS.** Overexpression of sonic hedgehog in the triple negative breast cancer: clinicopathological characteristics of high burden breast cancer patients from Bangladesh. *Sci Rep.* 2016 Jan; 6: 18830.
- Penna F, Koyle MA.** Childhood Rhabdomyosarcoma. 8th Edition, 2015. Glenn's Urologic Surgery. Wolters Kluwer, United States. Marc Goldstein, Sandip Prasad, Jerome P. Richie, Eric S. Rovner, Gil Rushton, Stephen Savage, Urs Studer, Ramon Virasoro (eds).
- Penna FJ, Bowlin P, Alyami F, Bagli DJ, Koyle MA, Lorenzo AJ.** Novel Strategy for Temporary Decompression of the Lower Urinary Tract in Neonates Using a Ureteral Stent. *J Urol.* 2015 Oct;194(4):1086-90.
- Penna FJ, Bowlin PR, Odeh RI, Allen LM, Farhat WA.** Pediatric Laparoscopic congenital vesico-vaginal fistula repair for vaginal agenesis. *Journal of Ped and Adolescent Gynecology.* 2016 Apr; 29(2): 164-165.
- Penna FJ, Harvey E, John P, Armstrong D, Luginbuehl I, Odeh RI, Alyami F, Koyle MA, Lorenzo AJ.** Intra-arterial nitroglycerin for intra-operative arterial vasospasm during pediatric renal transplantation. *Pediatr Transplant.* 2016 May; 20(3): 463-466.
- Pippi Salle JL, Sayed S, Salle A, Bagli DJ, Farhat WA, Koyle MA, Lorenzo AJ.** Proximal hypospadias: A persistent challenge. Single institution outcome analysis of three surgical techniques over a 10-year period. *J Pediatr Urol.* 2016 Feb;12(1):28.e1-7.
- Romao RL, Lorenzo AJ.** Renal function in patients with Wilms tumor. *Urol Oncol.* 2016 Jan;34(1):33-41.
- Syed IS, Pedram A, Farhat WA.** Role of Sonic Hedgehog (Shh) Signaling in Bladder Cancer Stemness and Tumorigenesis. *Curr Urol Rep.* 2016 Feb;17(2):11.
- Ting K, Aitken KJ, Penna F, Samiei AN, Sidler M, Jiang JX, Ibrahim F, Tolg C, Delgado-Olguin P, Rosenblum N, Bagli DJ.** Uropathogenic E.coli (UPEC) Infection Induces Proliferation through Enhancer of Zeste Homologue 2 (EZH2). *PLoS One.* 2016 Mar 10;11(3):e0149118.
- Tu HY, Pemberton J, Lorenzo AJ, Braga LH.** Economic analysis of continuous antibiotic prophylaxis for prevention of urinary tract infections in infants with high-grade hydronephrosis. *J Pediatr Urol.* 2015 Oct;11(5):247.e1-8.
- Wehbi E, Salle A, Kanaroglou N, Lorenzo A, Bagli D, Koyle M, Billimek J, Vali R, Charron M, Pippi Salle JL.** Measurement of Differential Renal Function by Scintigraphy in Hydronephrotic Kidneys: Importance of Conjugate Views for Accurate Evaluation. *J Urol.* 2016 Feb;195(2):471-5.
- Wong N, Bansal R, Lorenzo AJ, DeMaria J, Braga L.** Misuse of ultrasound for palpable undescended testis by primary care providers: A prospective study. *Canadian Urological Association Journal.* 2015 Dec; 9(11-12):387-390.

## Invited Visits

- Bagli, Darius Jehan.** European Society for Paediatric Urology, Prague, Czech Republic, Oct 14, 2015. Invited Lecturer: Understanding Pediatric Uropathology Through Epigenetics.
- Farhat, Walid A.** American College of Surgeons (ACS) Clinical Congress 2015, Chicago, Illinois, Oct 7, 2015. Invited Speaker: Single Port Surgery in Pediatric Urology.
- Farhat, Walid A.** Lviv, Ukraine, Oct 19, 2015. Performed Live Surgery: Pyeloplasty, Hypospadias, Mitrofanoff.
- Farhat, Walid A.** 28th Saudi Urology Conference, King Abdulaziz University, Jeddah, Saudi Arabia, Feb 4-6, 2016. Invited Speaker: 1) Megaureter in Children. 2) Intersex: Update and Current Management. 3) Ureterocele Management. 4) Update on Neurogenic Bladder in Children. 5) Simulation and Competence Based Training: Future of Education. 6) Advances in Minimal Invasive Surgery.
- Farhat, Walid A.** Royal College Review Course, Toronto, Ontario, Feb 24, 2016. Invited Speaker: General Topics of Urology/Nephrology.
- Farhat, Walid A.** Columbia University, Morgan Stanley Children's Hospital, New York, Mar 9, 2016. Visiting Professor: 1) Urinary Bladder Tissue Engineering: From embryology to cancer, a full circle. 2) Minimal Access Non Robotic Pediatric Urologic Surgery.
- Grober, Ethan D.** University of Winnipeg (Mylan), Winnipeg, Manitoba, Dec 2015. Invited Speaker: New Canadian Guidelines on Testosterone Replacement Therapy.
- Grober, Ethan D.** Canadian Urological Association - Men's Health Summit, Toronto, Ontario, Jan 2016. Presenter: New Canadian Guidelines on Testosterone Replacement Therapy.
- Grober, Ethan D.** American Urological Association Meeting 2016, San Diego, California, May 2016. Invited Speaker: Point-Counterpoint Debate: "Is there a Role for Nutraceuticals in Male Infertility?" AUA Plenary Session
- Koyle, Martin Allan.** University of Kentucky, Kentucky, Feb 19, 2016. Visiting Professor: 1) Evolution in Hypospadias Repair: A personal 3 Decade Journey in Ongoing Learning. 2) Current concepts in the management of pediatric renal tumors- Shining a different light on Wilms' tumor.
- Lorenzo, Armando J.** Pediatric Surgery Joint Meeting: Great Ormond Street Hospital and Hospital Exequiel Gonzalez Cortes, Santiago, Chile, Aug 6-7, 2015. Invited Speaker: 1) Fertility preservation options for pediatric and adolescent patients with testicular tumors. 2) Is it truly necessary to treat vesicoureteral reflux? 3) Fistulas and hypospadias complications in adults. 4) Laparoscopic nephrectomy for Wilms tumor.



- Lorenzo, Armando J.** Royal Victoria Regional Health Care Centre, Barrie, Ontario, Sept 24, 2015. Invited Lecturer: A potpourri of Pediatric Urology for Pediatric Care.
- Lorenzo, Armando J.** Fundacion Universitaria De Ciencias De La Salud – FUCS, Bogota, Colombia, Oct 23, 2015. Invited Speaker: Workshop of Pediatric Urology: Complex Congenital Pathology Reconstructive Procedures: Prune Belly Syndrome & Epispadias.
- Lorenzo, Armando J.** Dr. Duncan Wilcox, Children’s Hospital Colorado, Englewood, Colorado, Feb 4, 2016. Visiting Professor: Journal Club. Grand Rounds. Comparison between laparoscopic and open radical nephrectomy for the treatment of primary renal tumours in children: Single-center experience over a 5-year period.
- Lorenzo, Armando J.** Urological Society of Australia and New Zealand, Gold Coast, Queensland, Australia, Apr 17-18, 2016. Invited Speaker: 1) Novel management options for complicated duplex systems. 2) Fertility preservation in paediatric cancer management and disorders of sexual differentiation. 3) Transitional Urology and the future of pediatric urology – challenges in the twilight zone of growing up. 4) USANZ Opening Plenary – State of the Art. 5) PERSPECTIVES: Decisional regret – the overlooked cost of decision making and the implications of too many choices. 6) Botulinum toxin in paediatrics. 7) Innovations in the management of Wilm’s Tumour.
- Lorenzo, Armando J.** University of Melbourne, Royal Victoria Children’s Hospital, Australia, Apr 21, 2016. Visiting Professor: Fertility Preservation in Pediatric Uro-Oncology.
- Lorenzo, Armando J.** Pediatric Grand Rounds: Monash Health Care System, Australia, Apr 22, 2016. Invited Speaker: Predictions of Renal Failure in Post Urethral Valves.
- Lorenzo, Armando J.** American Urological Association, San Diego, California, May 7, 2016. Presenter: Surgical Resection and Buccal Mucosa Vaginoplasty for Local Control in Vaginal Botryoid Rhabdomyosarcoma.
- Lorenzo, Armando J.** Department of Urology, University of Tennessee, Le Bonheur Children’s Hospital & St. Jude Children’s Research Hospital, Memphis, Tennessee, Jun 15, 2016. Invited Lecturer: 1) Grand Rounds – Can we avoid using radiation in girls with vaginal rhabdomyosarcoma? 2) Surgical mentoring, prone pre-rectal vaginectomy and buccal mucosa graft.
- Lorenzo, Armando J.** 2016 AUA Review Course, Pediatric Urological Oncology, New Orleans, Louisiana, Jun 23, 2016. Invited Speaker: 1) Wilm’s Tumor and Other Renal Tumors. 2) Rhabdomyosarcoma. 3) Neuroblastoma. 4) Testis Tumors. 5) Disorders of Genitalia: Intersex. 6) Disorders of Genitalia: Hypospadias. 7) Disorders of Genitalia: Epispadias-Exstrophy. 8) Disorders of Genitalia: Undescended Testicle, Hydroceles, Hernias. 9) Pediatric Case Studies.

## Research and Investigations

- Applying radiomics to predict pathology of residual retroperitoneal nodal masses in metastatic germ cell tumors following platinum based chemotherapy. *University Health Network (Toronto, ON). Lewin J, Bedard P, Metser U, O’Malley M, Jewett M, Hamilton R, Moore M, Dufort P, Halankar J, Gupta A, Lorenzo A, Traubici J, Atenafu E.* (\$80,000.00 CAD Sept 2015 – Sept 2017).
- Choosing Wisely Project. *American Urological Association. Ordon M, Lorenzo AJ.* (\$24,992.00 USD Jan 2016 - ).
- Development of a web-based micro-surgical skills surgical practice platform. *The Hospital for Sick Children. Bagli DJ, Grober E, Dubrowski A, Odeh R.* (\$10,000.00 CAD 2015).
- Fertility Preservation Program. *Garron Family Cancer Centre, Sickkids Fertility Preservation Program. Lorenzo AJ, Gupta A, Maloney AM, Allen L.* (\$69,000.00 CAD Apr 2016 – Apr 2018).

## Honours and Awards

- Lorenzo, Armando J:** Top 10 Reviewer Certificate Award, Journal of Pediatric Urology. 2015.

## Hockey Team





## Mount Sinai Hospital

**Jay S. Wunder**, *Surgeon-in-Chief, Rubinoff-Gross Chair in Orthopaedic Oncology*

### General Surgery

#### New Faculty Member

**Savtaj Brar**, Surgical Oncology

#### Successful Continuing Appointment Reviews

**Anand Govindarajan**

**Anand Govindarajan**, surgical oncology, conducts outcomes research in collaboration with his scientific mentor, Nancy Baxter.

**Zane Cohen** led the General Surgery Division's commitment to host a Syrian refugee family, an effort to which all faculty and trainee members have contributed in some manner.

Research that directly informs health care policy - **Erin Kennedy** in optimization of the management of primary rectal cancer

### Orthopaedics

**David Backstein** led the Integration, Advocacy and Outreach group, which highlighted as priorities the advocacy for funding for our specialty based on solid costing evidence, ensuring our prominent role in the Toronto Central LHIN is maintained, expansion of CME offerings and enhanced engagement with alumni, primary care and allied health personnel.



### Urology

**Dr. Keith Jarvi** continues in his role as site Chief. In addition he heads the Male Infertility Program and is Director of The Murray Koffler Urologic Wellness Centre (MKUWC). He continued his work and research in Infertility with projects funded by the NIH, Ontario Institute for Cancer Research, CIHR, Canadian Uro-Oncology Group, MaRS Innovation, Canadian Cancer Society Research Institute, Institut Merieux, Canadian Uro-oncology Group, PSI, and with non-peer review grants from GSK and Pierre Fabre Medicaments

**Dr. Kirk Lo** continued his research in Infertility with a multi-year grant funded by the National Institutes of Health and in projects funded by CIHR, MaRS Innovation, Canadian Cancer Society Research Institute, Canadian Uro-oncology Group, and PSI.

**Dr. Alexandre Zlotta** was invited speaker and/or Visiting Professor to Europe, Asia and South America. He continued his research with funding from Ontario Institute for Cancer Research, CIHR, Canadian Cancer Society Research Institute, and the Canadian Uro-oncology Group. This past year he made the important discovery of a prostate cancer lethal gene.

## Division of General Surgery

<b>Dr. Savtaj S. Brar</b>	Assistant Professor
<b>Dr. Zane Cohen</b>	Professor
<b>Dr. Rebecca Gladdy</b>	Assistant Professor
<b>Dr. Anand Govindarajan</b>	Assistant Professor
<b>Dr. Robert Neil Gryfe</b>	Assistant Professor
<b>Dr. Erin D. Kennedy</b>	Associate Professor
<b>Dr. Helen M. MacRae</b>	Professor
<b>Dr. Judith Andrea McCart</b>	Associate Professor
<b>Dr. Robin S. McLeod</b>	Professor
<b>Dr. Carol Jane Swallow</b>	Professor (Division Head)

### Publications

**Aronson M, Gallinger S, Cohen Z, Cohen S, Diver R, Tabori U, Durno C, et al.** Gastrointestinal Findings in the Largest Series of Patients with Hereditary Biallelic Mismatch Repair Deficiency Syndrome - Report from the International Consortium. *Am J Gastroenterol.* 2016 Feb;111(2):275-84.

- Aronson M, Holter S, Semotiuk K, Winter L, Pollett A, Gallinger S, Cohen Z, Gryfe R.** DNA Mismatch Repair Status Predicts Need for Future Colorectal Surgery for Metachronous Neoplasms in Young Individuals Undergoing Colorectal Cancer Resection. *Dis Colon Rectum.* 2015 Jul;58(7): 545-52.
- Arraiza M, Metser U, Vajpeyi R, Khalili K, Hanbidge A, Kennedy ED, Ghai S.** Primary Cystic Peritoneal Masses and Mimickers: Spectrum of Diseases with Pathologic Correlation. *Abdom Imaging.* 2015 Apr;40(4):875-906.
- Babichev Y, Kabaroff L, Datti A, Uehling D, Isaac M, Al-Awar R, Prakesch M, Sun RX, Boutros PC, Venier R, Dickson BC, Gladdy RA.** PI3K/AKT/mTOR inhibition in combination with doxorubicin is an effective therapy for leiomyosarcoma. *J Transl Med.* 2016 Mar 8;14:67.
- Dies N, Rashid S, Shandling M, Swallow C, Easson AM, Kennedy E.** Physician assistants reduce resident workload and improve care in an academic surgical setting. *JAAPA.* 2016 Feb;29(2):41-6.
- Easson AM, Neumann P.** Malignant Bowel Obstruction. American College of Surgeons, United States, Illinois, Chicago. *Fundamentals in Surgery Curriculum.* Online Resources, 2016.
- Easson AM, Tomlinson G, Doria AS.** Measurement: validity, reliability, responsiveness. *Introduction to Imaging Research.* Thieme Medical Publishers Inc. United States, New York, New York. 2016.
- Eskicioglu C, Pearsall E, Victor JC, Aarts MA, Okrainec A, McLeod RS.** A multifaceted knowledge translation strategy can increase compliance with guideline recommendations for mechanical bowel preparation. *J Gastrointest Surg.* 2015;19(1): 39-44.
- Flint L, McGory RM, Easson AM.** Geriatrics and Palliative Care. *Selected Readings in General Surgery.* American College of Surgeons. 2016 Jan; 42(1).
- Fug-Kee-Fung M, Kennedy EB, Biagi J, Colgan T, D'Souza D, Elit LM, Hunter A, Irish J, McLeod R, Rosen B.** An organizational guideline for gynecologic oncology services. *Int J Gynecol Cancer.* 2015;25(4): 551-8.
- Gervais M-K, Gladdy RA, Catton C.** Breast sarcomas. *5th Textbook of Uncommon Cancers.* 2015.
- Gladdy RA, Gupta A, Catton CN.** Retroperitoneal Sarcoma: Facts, Opinion and Controversy. *Surgical Oncology Clinics North America.* Chapter. 2016.
- Gotlib CL, McKenzie M, Pearsall EA, McLeod RS.** Successful implementation of an enhanced recovery after surgery programme for elective colorectal surgery: a process evaluation of champions' experiences. *Implement Sci.* 2015;10(1):99.
- Govindarajan A, Urbach DR, Baxter NN.** Outcomes of Procedures Performed by Attending Surgeons after Night Work. *N Engl J Med.* 2015 Dec; 373(24):2384.
- Govindarajan A, Urbach DR, Kumar M, Li Q, Murray BJ, Juurlink D, Kennedy ED, Gagliardi A, Sutradhar R, Baxter NN.** Outcomes of Daytime Procedures Performed by Attending Surgeons after Night Work. 2015 Aug; 373(9): 845-853.
- Greenberg JA, Hsu J, Bawazeer M, Marshall J, Friedrich JO, Nathens A, Coburn N, May GR, Pearsall E, McLeod RS.** Clinical practice guideline; management of acute pancreatitis. *Can J Surg.* 2016 Apr;59(2):128-40.
- Greenberg JA, Hsu J, Bawazeer M, Marshall J, Friedrich JO, Nathens A, Coburn N, Huang H, McLeod RS.** Compliance with Evidence-Based Guidelines in Acute Pancreatitis: an Audit of Practices in University of Toronto Hospitals. *J Gastrointest Surg.* 2016 Feb;20(2):392-400.
- Gronchi A, Strauss DC, Miceli R, Bonvalot S, Swallow CJ, Hohenberger P, Van Coevorden F, Rutkowski P, Callegaro D, Hayes AJ, Honore C, Fairweather M, Cannell A, Jakob J, Haas RL, Szacht M, Fiore M, Casali PG, Pollock RE, Raut CP.** Variability in Patterns of Recurrence After Resection of Primary Retroperitoneal Sarcoma (RPS): A Report on 1007 Patients From the Multi-institutional Collaborative RPS Working Group. *Ann Surg.* 2016 May;263(5):1002-9.
- Hameed U, Govindarajan A.** Rectal cancer. *Textbook of GI and Hepatobiliary Surgery.* Jaypee Publishing. 2015.
- Hamilton T, Dickson B, Gladdy R.** Desmoid Fibromatosis and Dermatofibrosarcoma Protuberans. Chapter 9. Second ed. University of Toronto, *Surgical Oncology Manual.* Springer, Wright F, Escallon J, Cukier M, Tsang ME, Hameed U. (eds) 2016.
- Jhaveri KS, Hosseini-Nik H, Thippavong S, Assarzagdegan N, Menezes RJ, Kennedy ED, Kirsch R.** MRI Detection of Extramural Venous Invasion in Rectal Cancer: Correlation with Histopathology Using Elastin Stain. *AJR Am J Roentgenol.* 2016 Apr;206(4):747-55.
- Kelly O, Rosenberg M, Tyler A, Stempak J, Steinhart AH, Cohen Z, Greenberg G, Silverberg M.** Infliximab to Treat Refractory Inflammation after Pelvic Pouch Surgery for Ulcerative Colitis. *J Crohns Colitis.* 2016 Apr;10(4):410-7.
- Kennedy E, Vella ET, Blair Macdonald D, Wong CS, McLeod R.** Optimisation of preoperative assessment in patients diagnosed with rectal cancer. *Clin Oncol (R Coll Radiol).* 2015;27(4):225-45.
- Lee JJ, Dickson BC, Sreeharsha B, Gladdy RA, Thippavong S.** Presacral Myelolipoma: Diagnosis on Imaging With Pathologic and Clinical Correlation. *AJR Am J Roentgenol.* 2016 Jun;1:1-12.
- Leon-Carlyle M, Schmocker S, Victor JC, Maier BA, O'Connor BI, Baxter NN, McLeod RS, Kennedy ED.** Prevalence of Physiologic Sexual Dysfunction is High Following Treatment for Rectal Cancer: But is it the Only Thing That Matters? *Dis Colon Rectum.* 2015; 58(8): 736-42.
- Leong T, Smithers BM, Michael M, GebSKI V, Boussioutas A, Miller D, Simes J, Zalcborg J, Haustermans K, Lordick F, Schuhmacher C, Swallow C, Darling G, Wong R.** TOPGEAR: a randomised phase III trial of perioperative ECF chemotherapy versus preoperative chemoradiation plus perioperative ECF chemotherapy for resectable gastric cancer (an international, intergroup trial of the AGITG/TROG/EORTC/NCIC CTG). *BMC Cancer.* 2015 Jul 21;15:532.



- Li D, Baxter NN, McLeod RS, Moineddin R, Nathens AB.** The Decline of Elective Colectomy Following Diverticulitis: A Population-Based Analysis. *Dis Colon Rectum.* 2016 Apr;59(4):332-9.
- Li J, Hart TL, Aronson M, Crangle C, Govindarajan A.** Cancer Worry, Perceived Risk and Cancer Screening in First-Degree Relatives of Patients with Familial Gastric Cancer. *J Genet Couns.* 2016 Jun;25(3):520-8.
- MacNeill A, Ferguson P, Gupta A, Catton C, Dickson B, Gladly R.** Retroperitoneal and Extremity Soft Tissue Sarcomas. Chapter 22. 2nd Ed. University of Toronto, *Surgical Oncology Manual.* Springer. Wright F, Escallon J, Cukier M, Tsang ME, Hameed U. (eds) 2016.
- McLeod R, Rectal Cancer Alliance of Canada (RCAC) (35 collaborators).** QuickSilver: A Phase II Study Using Magnetic Resonance Imaging Criteria to Identify "Good Prognosis: Rectal Cancer Patients Eligible for Primary Surgery. *JMIR Res Protoc.* 2015;4(2):e41.
- McLeod RS, Aarts MA, Chung F, Eskicioglu C, Forbes SS, Conn LG, McCluskey S, McKenzie M, Morningstar B, Nadler A, Okrainec A, Pearsall EA, Sawyer J, Siddiqui N, Wood T.** Development of an Enhanced Recovery After Surgery Guideline and Implementation Strategy Base on the Knowledge-to-action Cycle. *Ann Surg.* 2015 Dec;262(6):1016-25.
- McLeod RS.** Quality of Life in Crohn's Disease. *Crohn's Disease: Basic Principles.* 2015 Springer. Tichero A, Krane M. (eds).
- McLeod RS.** SSAT Presidential Address 2014: Here Comes Generation Y! *J Gastrointest Surg.* 2015;19(1):105.
- McNamara KL, Aronson MD, Cohen Z.** Is there a role for prophylactic colectomy in Lynch syndrome patients with inflammatory bowel disease? *Int J Colorectal Dis.* 2016 Jan;31(1):9-13.
- Nadler A, McCart JA, Govindarajan A.** Peritoneal Carcinomatosis from Colon Cancer: A Systematic Review of the Data for Cytoreduction and Intraperitoneal Chemotherapy. *Clin Colon Rectal Surg.* 2015 Dec;28(4):234-46.
- Nanwa N, Kwong JC, Krahn M, Daneman N, Lu H, Austin PC, Govindarajan A, Rosella L, Cadarette SM, Sander B.** The economic burden of hospital-acquired *Clostridium difficile* infection: a population-based matched cohort study. *Infect Control Hosp Epidemiol.* 2016 Jun;20:1-11.
- Raut CP, Miceli R, Strauss DC, Swallow CJ, Hohenberger P, van Coevorden F, Rutkowski P, Fiore M, Callegaro D, Casali PG, Haas RL, Hayes AJ, Honore C, Cannell AJ, Jakob J, Szacht M, Fairweather M, Pollock RE, Bonvalot S, Gronchi A.** External validation of a multi-institutional retroperitoneal sarcoma nomogram. *Cancer.* 2016 May 1;122(9):1417-24.
- Ripamonti CI, Eason AM, Gerdes H.** Malignant Bowel Obstruction. *Textbook of Palliative Medicine and Supportive Care.* 2015; Chapter 62; pp 587-602. 2nd edition. CRC Press Taylor & Francis Group United States Florida.
- Sano T, Brar SS.** Cancer of the Stomach. 9th Edition UICC Manual of Oncology. John Wiley & Sons United States. Chapter 2. 2015
- Shawhan RR, Hatch QM, Bingham JR, Nelson DW, Fitzpatrick EB, McLeod R, Johnson EK, Maykel JA, Steele SR.** Have we progressed in the surgical literature? Thirty-year trends in clinical studies in 3 surgical journals. *Dis Colon Rectum.* 2015;58(1):115-21.
- Snelgrove R, Subendran J, Jhaveri K, Thippavong S, Cummings B, Brierley J, Kirsch R, Kennedy ED.** Effect of Multidisciplinary Cancer Conference on Treatment Plan for Patients with Primary Rectal Cancer. *Diseases of the Colon and Rectum.* 2015; 58(7): 653-658.
- Toeves C, Eason A, and the Committee on Surgical Palliative Care.** Surgical and percutaneous feeding tube placement. American College of Surgeons, *Evidence Based Decisions in Surgery.* Chicago, United States. 2015 Aug. Online Resources.
- Wang M, Connor A, Wong B, McNamara K, Semotiuk K, Khalouei S, Holter S, Aronson M, Cohen Z, Gallinger S, Charames G, Pollet A, Lerner-Ellis J.** Genetic Testing for Lynch Syndrome in the Province of Ontario. *Cancer.* 2016 Jun 1;122(11):1672-9.
- Waterman M, Knight J, Dinani A, Xu W, Stempak JM, Croitoru K, Nguyen GC, Cohen Z, McLeod RS, Greenberg GR, Steinhart AH, Silverberg MS.** Predictors of Outcome in Ulcerative Colitis. *Inflamm Bowel Dis.* 2015;21(9):2097-105.
- Wong P, Hui A, Su J, Yue S, Haibe-Kains B, Gokgoz N, Xu W, Bruce J, Williams J, Catton C, Wunder JS, Andrulis IL, Gladly R, Dickson B, O'Sullivan B, Liu FF.** Prognostic microRNAs modulate the RHO adhesion pathway: A potential therapeutic target in undifferentiated pleomorphic sarcomas. *Oncotarget* 2015 Nov 17;6(36):39127-39.
- Yohanathan L, Coburn NG, McLeod RS, Kagedan DJ, Pearsall E, Zih FS, Callum J, Lin Y, McCluskey S, Hallet J; Best Practices in General Surgery (BPIGS) group.** Understanding Perioperative Transfusion Practices in Gastrointestinal Surgery - a Practice Survey of General Surgeons. *J Gastrointest Surg.* 2016 Jun 20;6:1106-22.
- Zerhouni S, Kirsch R, Bakonyi A, O'Connor BI, Huang H, Cohen Z.** Severity of Inflammation as a Risk Factor for Ileo-Anal Anastomotic Leak After a Pouch Procedure in Ulcerative Colitis. *Int J Colorectal Dis.* 2015 Oct;30(10):1375-80.

## Invited Visits

- Gladly, Rebecca.** 9th Annual Institute for Comparative Cancer Investigation Symposium, University of Guelph, Guelph, Ontario, May 17, 2016. Invited Speaker: Advancing Model Development in Soft Tissue Sarcoma: Translating Mechanisms into Therapeutic Potential.
- Govindarajan, Anand.** London Regional GI Disease Site Team Annual Education Conference, London, Ontario, Nov 14, 2015. Invited Speaker: Peritoneal malignancy: The role for surgery.
- Kennedy, Erin D.** Canadian Surgery Forum, Quebec City, Quebec, Sept 19, 2015. 1) Invited Speaker: CSSO/CSCRS Symposium: Advanced Pelvic Malignancies. Quality of Life Following Pelvic Exenteration. 2) Presenter: CSSO/CSCRS/CHPBA/CATS PG Course: Mastering Multimodality Cancer Care.
- Kennedy, Erin D.** BC Cancer Agency: Surgical Oncology Network, Vancouver, British Columbia, Nov 7, 2015. Invited Speaker: 1) CPAC National Rectal Cancer Quality Improvement Initiative. 2) Treatment Decisions - Multimodality Treatment of Colorectal Cancer.

**Kennedy, Erin D.** Digestive Disease Institute, Boca Raton, Florida, Feb 3, 2016. Invited Speaker: 1) Synoptic MRI Reporting for Primary Rectal Cancer: The Canadian Experience. 2) Patient Engagement in Research - is it worth it? 3) Sexual function following treatment for rectal cancer.

**McLeod, Robin S.** University of Alabama Birmingham, Birmingham, Alabama, Sep 17-19, 2015. Visiting Professor: Implementing an Enhanced Recovery After Surgery Program - Lessons Learned.

**McLeod, Robin S.** Canadian Surgery Forum, Quebec City, Quebec, Sept 19, 2015. Invited Speaker: 1) What is the Evidence? Should we change practice? 2) Benefits and risks of centralized cancer care - the CCO experience.

**McLeod, Robin S.** Society for Surgery of the Alimentary Tract. San Diego, United States, May 24, 2016. Invited Speaker: The Current Status of the GI Surgeon: From General to Specialized Training - An International Perspective.

**Swallow, Carol Jane.** Alberta Association of General Surgeons Review in the Rockies 2016, Banff, Alberta, Feb 5, 2016. Invited Speaker: 1) Double bad - the intersection of acute care surgery and surgical oncology. 2) Unexpected encounters of the oncologic kind.

**Swallow, Carol Jane.** The Biannual Conference of The Israel Society of Surgical Oncology, Caesarea, Israel, Feb 10-11, 2016. Invited Speaker: 1) Pelvic exenteration for recurrent rectal cancer. 2) Updates in the management of GIST.

**Swallow, Carol Jane.** Society of Surgical Oncology 69th Annual Cancer Symposium, Boston, Massachusetts, Mar 3-5, 2016. Moderator: Clinical Investigator Award Presentation.

**Swallow, Carol Jane.** Canadian Society of Surgical Oncology 22nd Annual Scientific Meeting, Toronto, Ontario, Apr 29, 2016. Speaker: Glove and instrument handling in cancer surgery: A survey of surgeons' beliefs and practices.

## Research and Investigations

A Patient Centered Approach to Improving the Surgical Experience at the University of Toronto. *Canadian Institutes of Health Research. Kennedy ED.* (\$15,000.00 CAD Jun 2016 - Jun 2017).

Cancer Prevention. *University of Toronto. Cohen Z.* (2015).

Disseminating information about long-term symptom management issues in colorectal cancer survivors: Next steps toward a cancer survivorship care plan. *Canadian Institute for Health Research. Hart T, Cohen Z.* (Jul 2015 - Jun 2016).

Genetics of Leiomyosarcoma - are there distinct subtypes? *McLaughlin Centre, University of Toronto. Gladdy R, Shlien A, Dickson B.* (\$50,000.00 CAD May 2016 - Apr 2017).

## Honours and Awards

**Brar, Savtaj Singh:** Nicolas Colapinto Teaching Award, 38th Annual Assembly of General Surgeons, University of Toronto. 2015.

**Govindarajan, Anand:** Bernard Langer Surgeon Scientist Award, Department of Surgery, University of Toronto. Made annually to an outstanding graduate of the Surgeon Scientist Program in the Department of Surgery who shows the greatest promise for a career in academic surgery. May 2016.

**McLeod Robin:** Honorary Member, Canadian Society of Colon and Rectal Surgery. 2016.

## Division of Orthopaedics

<b>Dr. D. Backstein</b>	Associate Professor (Division Head)
<b>Dr. P. Ferguson</b>	Associate Professor
<b>Dr. A. Gross</b>	Professor
<b>Dr. P. Kuzyk</b>	Assistant Professor
<b>Dr. O. Safir</b>	Associate Professor
<b>Dr. T. Willett</b>	Assistant Professor
<b>Dr. J.S. Wunder</b>	Professor

## Publications

**Amenabar T, Rahman WA, Avhad VV, Vera R, Gross AE, Kuzyk PR.** Vancouver type B2 and B3 periprosthetic fractures treated with revision total hip arthroplasty. *International Orthopaedics.* 2015 Oct; 39(10): 1927-1932.

**Amenabar T, Rahman WA, Hetaimish BM, Kuzyk PR, Safir OA, Gross AE.** Promising mid-term results with a cup cage construct for large acetabular defects and pelvic discontinuity. *Clinical Orthopaedic and Related Research.* 2016 Feb; 474(2): 408-414.

**Backstein D.** CORR Insights®: What Factors Influence the Success of Medial Gastrocnemius Flaps in the Treatment of Infected TKAs? *Clin Orthop Relat Res.* 2016 Mar; 474(3): 764-5.

- Callegaro D, Miceli R, Bonvalot S, Ferguson P, Strauss DC, Levy A, Griffin AM, Hayes AJ, Sacchiotti S, Le Pechoux C, Smyth MJ, Fiore M, Dei Tos AP, Smith HG, Marian L, Wunder J, Pollock RE, Casali PG, Gronchi A.** Development and external validation of two nomograms to predict overall survival and distant metastases after surgical resection of localized soft tissue sarcomas of the extremities: a retrospective analysis. *Lancet Oncol.* 2016 May;17(5):671-80.
- Carvalho PI, Griffin AM, Ferguson PC, Wunder JS.** Salvage of the proximal femur following pathological fractures involving benign bone tumors. *J Surg Oncol.* 2015 Dec;112(8):846-52.
- Chamma E, Qiu J, Lindvere-Teene L, Blackmore KM, Majeed S, Weersink R, Dickie CI, Griffin AM, Wunder JS, Ferguson PC, DaCosta RS.** Optically-tracked handheld fluorescence imaging platform for monitoring skin response in the management of soft tissue sarcoma. *J Biomed Opt.* 2015 Jul;20(7):76011.
- Cipriano C, Griffin A, Ferguson P, Wunder J.** Developing an Evidence-based Followup Schedule for Bone Sarcomas Based on Local Recurrence and Metastatic Progression. *Clin Orthop Relat Res.* 2016 Jun 23.
- Drexler M, Abolghasemian M, Kuzyk PR, Dwyer T, Kosashvili Y, Backstein D, Gross AE, Safir O.** Reconstruction of chronic abductor deficiency after revision hip arthroplasty using an extensor mechanism allograft. *Bone Joint J.* 2015 Aug;97-B(8):1050-5.
- Drexler M, Dwyer T, Kuzyk PR, Kosashvili Y, Abolghasemian M, Regev GJ, Kadar A, Rutenberg TF, Backstein D.** The results of two-stage revision TKA using Ceftazidime-Vancomycin-impregnated cement articulating spacers in Tsukayama Type II periprosthetic joint infections. *Knee Surg Sports Traumatol Arthrosc.* 2015 Aug 14.
- Drexler M, Kuzyk PR, Koo K, Gross AE, Kosashvili Y, Reischl N, Rutenberg TF, Safir O.** The Use of a Supra-Acetabular Antibiotic-Loaded Cement Shelf to Improve Hip Stability in First-Stage Infected Total Hip Arthroplasty. *J Arthroplasty.* 2016 Apr 30. pii: S0883-5403(16)30128-0.
- Dwyer T, Wade V, Archibald D, Kraemer W, Shantz JS, Townley J, Ogilvie-Harris D, Petrera M, Ferguson P, Nousiainen M.** Cognitive and Psychomotor Entrustable Professional Activities: Can Simulators Help Assess Competency in Trainees? *Clin Orthop Relat Res.* 2016 Apr;474(4):926-34.
- Elmallah RK, Scuderi GR, Jauregui JJ, Meneghini RM, Dennis DA, Backstein DB, Bourne RB, Mont MA.** Radiographic Evaluations of Revision Total Knee Arthroplasty: A Plea for Uniform Assessments. *J Arthroplasty.* 2015 Nov;30(11):1981-4.
- Ferguson P.** Prophylactic antibiotic regimens in tumour surgery (PARITY): a pilot multicentre randomised controlled trial. *Bone Joint Res.* 2015 Sep;4(9):154-62.
- Fichman S, Mäkinen TJ, Vincent A, Lozano B, Safir O, Kuzyk PR.** Complications Following Conversion of Hemiarthroplasty to a Total Hip Arthroplasty. *Int Orthop.* 2015 Dec;39(12):2335-9.
- Fichman SG, Mäkinen TJ, Lozano B, Rahman WA, Safir O, Gross AE, Backstein D, Kuzyk PR.** Closed suction drainage has no benefits in revision total hip arthroplasty: a randomized controlled trial. *Int Orthop.* 2016 Mar;40(3):453-7.
- Girardi BL, Attia T, Backstein DB, Safir O, Willett TL, Kuzyk PR.** Biomechanical Comparison of the Human Cadaveric Pelvis with a SawBones 4th Generation Composite Model. *Journal of Biomechanics.* 2016 Feb;49(4):537-542.
- Griffin AM, Dickie CI, Catton CN, Chung PW, Ferguson PC, Wunder JS, O'Sullivan B.** The Influence of Time Interval Between Preoperative Radiation and Surgical Resection on the Development of Wound Healing Complications in Extremity Soft Tissue Sarcoma. *Ann Surg Oncol.* 2015 Sept;9:2824-30.
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- Mäkinen T, Dhotar H, Fichman G, Gunton M, Woodside M, Safir O, Backstein D, Willett T, Kuzyk P.** Periprosthetic supracondylar femoral fractures following knee arthroplasty: a biomechanical comparison of four methods of fixation. *Int Orthop.* 2015 Sept;39(9):1737-42.
- Mäkinen TJ, Fichman SG, Rahman WA, Amenabar T, Safir O, Gross AE, Kuzyk PR.** The focally constrained liner is a reasonable option for revision of unstable total hip arthroplasty. *International Orthopaedics.* 2015 Dec 23.
- Makinen TJ, Fichman SG, Watts E, Kuzyk PRT, Safir OA, Gross AE.** The Role of Cages in the Management of Severe Acetabular Bone Defects at Revision Arthroplasty. *The Bone & Joint Journal.* 2016 Jan;98-B(1):73-77.
- Mäkinen TJ, Gunton MJ, Fichman S, Kashigar A, Safir O, Kuzyk PR.** Arthroplasty for Unstable Intertrochanteric Hip Fractures: Indications and Techniques. *Orthopaedic Clinics of North America.* 2015 Oct;46(4):433-44.
- Mäkinen TJ, Kuzyk P, Safir OA, Backstein D, Gross AE.** Role of Cages in Revision Arthroplasty of the Acetabulum. *Journal of Bone and Joint Surgery American.* 2016 Feb;98(3):233-242.
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- Miachiela MJ, Zhou W, Karlins E, Sampson JN, Freedman ND, Wunder JS, et al.** Female chromosome X mosaicism is age-related and preferentially affects the inactivated X chromosome. *Nat Commun.* 2016 Jun 13;7:11843.
- Nousiainen MT, McQueen SA, Ferguson P, Alman B, Kraemer W, Safir O, Reznick R, Sonnadara R.** Simulation for Teaching Orthopaedic Residents in a Competency-based Curriculum: Do the Benefits Justify the Increased Costs? *Clin Orthop Relat Res.* 2016 Apr;474(4):935-44.
- Pellegrini VD Jr, Ferguson PC, Cruess R, Cruess S, Briggs TW.** Sufficient Competence to Enter the Unsupervised Practice of Orthopaedics: What Is It, When Does It Occur, and Do We Know It When We See It? *AOA Critical Issues. J Bone Joint Surg Am.* 2015 Sep 2;97(17):1459-64.



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- Rahman WA, Hetaimish BM, Kuzyk PR, Safir OA, Gross AE.** Promising Mid-term Results with a Cup-cage Construct for Large Acetabular Defects and Pelvic Discontinuity. *Clinical Orthopaedic and Related Research*. 2016 Feb; 474(2): 408-414.
- Rahman WA, Vial TA, Backstein DJ.** Distal Femoral Arthroplasty for Management of Periprosthetic Supracondylar Fractures of the Femur. *Journal of Arthroplasty*. March 2016; 31(3): 676-679.
- Schemitsch C, Kuzyk PR, McKee M.** Atypical Femoral Fracture Despite Prophylactic Intramedullary Nailing: A case Report. *JBJS Case Connector*. 2015 Jul 08; 5 (3): e57 .
- Traub F, Singh J, Dickson BC, Leung S, Mohankumar R, Blackstein ME, Razak AR, Griffin AM, Ferguson PC, Wunder JS.** Efficacy of denosumab in joint preservation for patients with giant cell tumour of the bone. *Eur J Cancer*. 2016 Mar 15;59:1-12.
- Wunders JS, The PARITY Investigators.** Prophylactic antibiotic regimens in tumour surgery (PARITY) A Pilot Multicentre Randomised Controlled Trial. *Bone Joint Research*. 2015 Sept; 4(9): 154-62.

## Invited Visits

- Backstein, David.** Canadian Arthroplasty Society, Ottawa, Ontario, Nov 26, 2015. Moderator: Miscellaneous Total Knee and Hip.
- Ferguson, Peter.** American College of Veterinary Surgeons Annual Meeting, Nashville, Tennessee, Oct 23, 2015. Invited Speaker: Sarcomas in Humans: Where we are now and where we need to go (and how do we get there?)
- Ferguson, Peter.** Harvard Department of Orthopaedic Surgery Grand Rounds, Boston, Massachusetts, Apr 21, 2016. Visiting Professor: A Recipe for Radical Curricular Change in Postgraduate Surgical Training.
- Gross, Allan.** International Hip Society 40th Year Anniversary, Chicago, Illinois, Sept 12, 2015. Presenter: Management of massive acetabular bone defects using trabecular metal augments and a cage.
- Gross, Allan.** Sociedad Antioquena De Ortopedia Y Traumatologia (SAOT), X International Hip & Knee Course, Medellin, Colombia, Oct 2, 2015. 1) The role of cages in revision arthroplasty. 2) THR for dysplasia. 3) Trabecular metal augments in acetabular revision. 4) Extra talk - Standard exposure vs extensile exposure. 5) Extra talk - Total hip revision: A day in the life of...
- Gross, Allan.** The Hip Society, Sonoma, California, Oct 15, 2015. Presenter: Management of massive acetabular bone defects using trabecular metal augments and a cage.
- Gross, Allan.** Zimmer Biomet Institute, Calgary, Alberta, Oct 23, 2015. Facilitator: Inaugural Hip & Knee Masterclass: 1) Gauging Progress. Advancing Change. Anterior approach for primary hip replacement. 2) Difficult socket. 3) THR for dysplasia.
- Gross, Allan.** 46th Annual Meeting of the Japanese Society for Replacement Arthroplasty, Osaka, Japan, Feb 2016. Distinguished Speaker: 1) Revision arthroplasty of the acetabulum: Allografts vs. hyperporous metals. 2) Revision arthroplasty of the hip 2015.
- Gross, Allan.** Zimmer Biomet Institute, Interactions Meeting “The Challenge of Revision Hip Arthroplasty” Hamburg, Germany, Feb 2016. Faculty: 1) ZBI What I have learned in thirty years of revision surgery. 2) Revising the revision algorithm. 3) Management of pelvic discontinuity. 4) Management of type IV femoral defects. 5) My most difficult cases.
- Gross, Allan.** AAOS Annual Meeting Specialty Day - The Hip Society, Orlando, Florida, Mar 3-5, 2016. 1) Expert: Ask an expert – cases. 2) Presenter: The cup cage construct.
- Gross, Allan.** Current Concepts Institute, 17th Annual Current Concepts in Joint Replacement Spring 2016, Las Vegas, Nevada, May 2016. Presenter: 1) Ask the expert – Cases. 2) The role of cages in acetabular revision. 3) Trabecular metal augments in acetabular revision: Technique and results.
- Wunder, Jay Steven.** International Society of Limb Salvage/Musculoskeletal Tumor Society Combined Meeting, Orlando, Florida, Sept 9, 2015. Invited Speaker: What’s New in Bone Sarcoma.
- Wunder, Jay Steven.** International Society of Limb Salvage/Musculoskeletal Tumor Society Combined Meeting, New Jersey, Sept 12, 2015. Invited Speaker: Approaches to Management of Proximal Femoral Tumors.
- Wunder, Jay Steven.** 10th International Congress of Chinese Orthopaedic Association (COA2015), Chongqing, China, Nov 19, 2015. Invited Speaker: 1) How Close is Too Close: Positive Margins in Soft Tissue Sarcomas. 2) Efficacy of Denosumab in Joint Preservation for Patients with Giant Cell Tumor of Bone.
- Wunder, Jay Steven.** European Musculo-Skeletal Oncology Society-17th EMSOS Nurse and Allied Professions Group Meeting, La Baule, France, May 25, 2016. Invited Lecturer: Management of Soft Tissue Sarcoma: Surgery, Radiotherapy & Chemotherapy.

## Research and Investigations

ED Ultrasonographic Regional Anesthesia to Prevent Incident Delirium in Hip Fracture Patients (EDU\_RAPID). *Canadian Institutes of Health Research (CIHR)*. Lee J, Bhandari T, Borgundvaag B, Chenkin J, Chopra A, Daoust R, Emond M, Friedman S, Haslam L, Idestrup C, Jenkinson R, Kiss A, Kreder H, Melady D, Newbigging J, Ovens H, Pelet S, Perry J, Ryan D, Safir O, Sivilotti M, Tierney M, Woo M. (\$742,907.00 CAD Jul 2015 – Jul 2019)

## Division of Urology

Dr. K. Jarvi	Professor (Division Head)
Dr. K.C.L. Lo	Associate Professor
Dr. A. Zlotta	Professor

### Publications

- Bhindi B, Hermanns T, Wei Y, Yu J, Richard PO, Wettstein MS, Templeton A, Li K, Sridhar SS, Jewett MA, Fleshner NE, Zlotta AR, Kulkarni GS.** Identification of the best complete blood count-based predictors for bladder cancer outcomes in patients undergoing radical cystectomy. *Br J Cancer.* 2016;114(2):207-12.
- Bieniek JM, Drabovich AP, Lo KC.** Seminal biomarkers for the evaluation of male infertility. *Asian J Androl.* 2016 May;18(3):426-33.
- Bostrom PJ, Mirtti T, van Rhijn B, Fleshner NE, Finelli A, Laato M, Jewett MA, Moore MJ, Sridhar S, Nurmi M, Tannock IF, Zlotta AR.** Benefit of Adjuvant Chemotherapy and Pelvic Lymph Node Dissection in pT3 and Node Positive Bladder Cancer Patients Treated with Radical Cystectomy. *Bl Cancer.* 2016 Apr 27;2(2):263-272.
- Boström PJ, Thoms J, Sykes J, Ahmed O, Evans A, van Rhijn BWG, Mirtti T, Stakhovskiy O, Laato M, Margel D, Pintilie M, Kuk C, Milosevic M, Zlotta AR, Bristow RG.** Hypoxia marker GLUT-1 (glucose transporter 1) is an independent prognostic factor for survival in bladder cancer patients treated with radical cystectomy. *Bl Cancer.* 2016 Jan 7;2(1):101-109.
- Dobruch J, Daneshmand S, Fisch M, Lotan Y, Noon AP, Resnick MJ, Shariat SF, Zlotta AR, Boorjian SA.** Gender and Bladder Cancer: A Collaborative Review of Etiology, Biology, and Outcomes. *Eur Urol.* 2016 Feb;69(2):300-10.
- Gedye C, Sirskyj D, Lobo NC, Meens J, Hyatt E, Robinette M, Fleshner N, Hamilton RJ, Kulkarni G, Zlotta A, Evans A, Finelli A, Jewett MA, Ailles LE.** Cancer stem cells are underestimated by standard experimental methods in clear cell renal cell carcinoma. *Sci Rep.* 2016 Apr 28;6:25220.
- Islam SS, Mokhtari RB, Noman AS, Uddin M, Rahman MZ, Azadi MA, Zlotta A, van der Kwast T, Yeger H, Farhat WA.** Sonic hedgehog (Shh) signaling promotes tumorigenicity and stemness via activation of epithelial-to-mesenchymal transition (EMT) in bladder cancer. *Mol Carcinog.* 2016;55(5):537-51.
- Jarvi K, Lo K, Grober E, Mak V, Fischer A, Grantmyre J, Zini A, Chan P, Patry G, Chow V, Domes T.** The workup and management of azoospermic males. *Can Urol Assoc J.* 2015 Jul;9(7-8):229-35.
- Kamdar SN, Ho LT, Kron KJ, Isserlin R, van der Kwast T, Zlotta AR, Fleshner NE, Bader G, Bapat B.** Dynamic interplay between locus-specific DNA methylation and hydroxymethylation regulates distinct biological pathways in prostate carcinogenesis. *Clin Epigenetics.* 2016 Mar 15;8:32.
- Kassouf W, Traboulsi SL, Kulkarni GS, Breau RH, Zlotta A, Fairey A, So A, Lacombe L, Rendon R, Aprikian AG, Siemens DR, Izawa JI, Black P.** CUA guidelines on the management of non-muscle invasive bladder cancer. *Can Urol Assoc J.* 2015 Sep-Oct;9(9-10):E690-E704.
- Komisarenko M, Wong LM, Richard PO, Timilshina N, Toi A, Evans A, Zlotta A, Kulkarni G, Hamilton R, Fleshner N, Finelli A.** An Increase in Gleason 6 Tumor Volume While on Active Surveillance Portends a Greater Risk of Grade Reclassification with Further Followup. *J Urol.* 2016 Feb;195(2):307-12.
- Lo KC, Yildiz C, Zhu Y, Lambourne MD, Mullen JB, Samplaski MK, Jarvi KA, McKerlie C.** Human Fetal Testicular Tissue Xenotransplantation: A Platform to Study the Effect of Gonadotropins on Human Germ Cell Development In Utero. *J Urol.* 2015 Aug;194(2):585-91.
- Mandalapu RS, Remzi M, de Reijke TM, Margulis V, Palou J, Kapoor A, Yossepowitch O, Coleman J, Traxer O, Anderson JK, Catto J, de la Rosette J, O'Brien T, Zlotta A, Matin SF.** Update of the ICUD-SIU consultation on upper tract urothelial carcinoma 2016: treatment of low-risk upper tract urothelial carcinoma. *World J Urol.* 2016 May 27. [Epub ahead of print]
- Millar AC, Elterman DS, Goldenbeg L, Van Asseldonk B, Curtis A, Jarvi K.** A survey of Canadian urologists' opinions and prescribing patterns of testosterone replacement therapy in men on active surveillance for low-risk prostate cancer. *Canadian Urological Association Journal.* 2016;10(5-6):181-4.
- Nayan M, Bhindi B, Yu JL, Hermanns T, Mohammed A, Hamilton RJ, Finelli A, Jewett MA, Zlotta AR, Fleshner NE, Kulkarni GS.** The effect of metformin on cancer-specific survival outcomes in diabetic patients undergoing radical cystectomy for urothelial carcinoma of the bladder. *Urol Oncol.* 2015;33(9):386(e7-13).
- Nayan M, Bhindi B, Yu JL, Mamdani M, Fleshner NE, Hermanns T, Chung P, Milosevic M, Bristow R, Warde P, Hamilton RJ, Finelli A, Jewett MA, Zlotta AR, Sridhar SS, Kulkarni GS.** The initiation of a multidisciplinary bladder cancer clinic and the uptake of neoadjuvant chemotherapy: A time-series analysis. 2016;10(1-2):25-30.
- Richard PO, Jewett MA, Bhatt JR, Kachura JR, Evans AJ, Zlotta AR, Hermanns T, Juvet T, Finelli A.** Renal Tumor Biopsy for Small Renal Masses: A Single-center 13-year Experience. *Eur Urol.* 2015;68(6):1007-13.
- Rush S, Alibhai SM, Xu L, Xu W, Louis AS, Matthew AG, Nesbitt M, Finelli A, Fleshner NE, Hamilton RJ, Kulkarni G, Zlotta A, Jewett MA, Trachtenberg J.** Health-related quality of life in robotic versus open radical prostatectomy. *Can Urol Assoc J.* 2015;5(6):179-87.

**Samplaski M, Lo KC.** Erectile Dysfunction in the Setting of Prostate Cancer. 2016 ed. *Sexual Health in the Couple: Management of Sexual Dysfunction in Men and Women.* Springer-Verlag New York Inc. New York, United States. Larry I. Lipshultz, Michael Perelman, Alexander W. Pastuszak, Andrew T. Goldstein, Annamaria Giraldo (eds).

**Samplaski MK, Jarvi KA.** Prognostic factors for a favorable outcome after varicocele repair in adolescents and adults. *Asian J Androl.* 2016 Mar-Apr;18(2):217-21.

**Siadat F, Sykes J, Zlotta AR, Aldaoud N, Egawa S, Pushkar D, Kuk C, Bristow RG, Montironi R, van der Kwast T.** Not all gleason pattern 4 prostate cancers are created equal: A study of latent prostatic carcinomas in a cystoprostatectomy and autopsy series. *Prostate.* 2015 Sep;75(12):1277-84.

**van Rhijn BW, Musquera M, Liu L, Vis AN, Zuiverloon TC, van Leenders GJ, Kirkels WJ, Zwarthoff EC, Boevé ER, Jöbsis AC, Bapat B, Jewett MA, Zlotta AR, van der Kwast TH.** Molecular and clinical support for a four-tiered grading system for bladder cancer based on the WHO 1973 and 2004 classifications. *Mod Pathol.* 2015;28(5):695-705.

**Wallis CJ, Lo K, Lee Y, Krakowsky Y, Garbens A, Satkunasivam R, Herschorn S, Kodama RT, Cheung P, Narod SA, Nam RK.** Survival and cardiovascular events in men treated with testosterone replacement therapy: an intention-to-treat observational cohort study. *Lancet Diabetes Endocrinol.* 2016 Jun; 4(6):498-506.

**Wong LM, Ferrara S, Alibhai SM, Evans A, Van der Kwast T, Trottier G, Timilshina N, Toi A, Kulkarni G, Hamilton R, Zlotta A, Fleshner N, Finelli A.** Diagnostic prostate biopsy performed in a non-academic center increases the risk of re-classification at confirmatory biopsy for men considering active surveillance for prostate cancer. *Prostate Cancer Prostatic Dis.* 2015;18(1):69-74.

**Yang K, Samplaski M, Mazzulli T, Lo K, Grober E, Jarvi KA.** Urinary mycobacterium avium presenting as sterile pyuria. *Can Urol Assoc J.* 2016;10(5-6):E186-8.

## Invited Visits

**Jarvi, Keith.** International Center for Research and Research Training in Endocrine Disruption of Male Reproduction and Child Health, Copenhagen, Denmark, Nov 26, 2015. Invited Speaker: Using seminal plasma for diagnostic testing in infertility EDMaRC Workshop: From primordial germ cells to spermatozoa.

**Jarvi, Keith.** Arab Association of Urology at the American Urological Association Annual Meeting 2016, San Deigo, California, May 7, 2016. Invited Speaker: Medical treatment of male infertility: What is new?

**Zlotta, Alexandre:** Bladder Cancer Advocacy Network (BCAN), Charlotte, North Carolina, Aug 6, 2015. Invited Guest: Bladder Cancer Think Tank.

**Zlotta, Alexandre:** Jane Brown and Dale Goldhawk, AM 740 - Zoomer Radio's Goldhawk Fights Back, Toronto, Ontario, Sept 10, 2015. Invited Speaker: Bladder Cancer Awareness.

**Zlotta, Alexandre:** Urology Research Society (URS), Tel Aviv, Israel, Sept 17-18, 2015. Speaker: 1) Germline SNPs in the Kallikrein 6 region predispose for aggressive prostate cancer. 2) What is the most important research finding/question in bladder cancer?

**Zlotta, Alexandre:** Societe Internationale d'Urologie, Melbourne, Australia, Oct 15, 2015. Invited Lecturer: Management of BCG Failure and/or Non-availability of BCG.

**Zlotta, Alexandre:** European Association of Urology, Munich, Germany, Mar 12-13, 2016. Chair: 1) Cystectomy: Optimising perioperative care. 2) Screening and active surveillance – where are we now ESU.

**Zlotta, Alexandre:** European Association of Urology, Munich, Germany, March 12, 2016. Speaker: Screening and active surveillance – where are we now ESU.

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**Zlotta, Alexandre:** Jane Brown and Dale Goldhawk AM 740 - Zoomer Radio's Goldhawk Fights Back, September 10, 2015. Invited Speaker: Bladder Cancer Awareness.

**Zlotta, Alexandre:** Bladder Cancer Advocacy Network (BCAN), Charlotte, North Carolina, August 6, 2015. Invited Guest: Bladder Cancer Think Tank.

## Research and Investigations

A Phase 3 Randomized, Placebo-controlled, Double-blind study of JNJ-56021927 (ARN-509) Plus ADT Versus ADT in Subjects with Low-volume Metastatic Hormone-sensitive Prostate Cancer. *Aragon Pharmaceuticals, Inc. Fleshner N, Jewett M, Hamilton R, Kulkarni G, Finelli A, Zlotta A, Hansen A, Anthony J.* (Feb 2016).

Chronic Pain Network. *Canadian Institutes of Health Research (CIHR).* Buckley DN, Hudspeth M, Choimère M, Davis KD, Diatchenko L, Finley GA, Fréchette P, Gilron I, Iorio A, Latimer MA, Macdermid JC, Poulin PA, Schneider C, Stevens B, Stinson JN, Beaudet N, Busse JW, Craig KD, Devereaux PJ, El-Gabalawy R, Gendron L, Ghasemlou N, Gordon AS, Hadjivastropoulos T, Jarvi KA, Katz JD, McGillion MH, Moulin DE, Noel ME, Prescott S, Salter MW, Sessle BJ, Shamji ME, Singh G, Toupin April K, Walton DM, Ware MA, Watt-Watson JH. (\$12,450,000.00 CAD Jan 2016 – Dec 2020).



Diagnosis of prostate cancer with genomic biomarkers measured in seminal plasma. *Canadian Cancer Society Research Institute (CCSRI)*. Jarvi K, Diamandis E, Drabovich A. (\$200,000.00 CAD Aug 2015 - Jul 2017).

Non-invasive diagnosis of prostate cancer and stratification of its molecular subtypes using genomic profiling of circulating tumor cells isolated from semen. *Astellas Pharma Canada, Inc.* Drabovich A, Jarvi K, Diamandis EP, Schere S, Hyndman E, Karakosta T, Dimitromanolakis A. (\$50,000.00 CAD Feb 2016 - Feb 2017).

Prediction of successful sperm retrieval in patients with non-obstructive azoospermia using TEX101 protein measured in seminal plasma by ELISA. *Canadian Institutes of Health Research (CIHR)*. Jarvi K, Drabovich A, Diamandis EP, Grober ED, Lo KC, Schelegel P, Smith J, Zini A. (\$160,000.00 CAD Apr 2016 - Mar 2017).

Prediction of successful sperm retrieval in patients with non-obstructive azoospermia using TEX101 protein measured in seminal plasma by ELISA. *Canadian Institutes of Health Research (CIHR)*. Jarvi K, Drabovich A, Diamandis EP, Lo K, Grober E, Schlegel PN, Smith J, Zini A. (\$160,000.00 CAD Apr 2016 - Mar 2017).

qTAP, a novel platform for personalized medicine in cancer. *CQDM and CIHR*. Wrana J, Gingras AC, Yudin A, Zlotta A, Roughton A, Azad A. (\$750,000.00 CAD Jul 2015 - Dec 2017).

Use of semen TEX101 to improve sperm retrieval rates for men with non-obstructive azoospermia. *Physicians Services Incorporated Foundation (The) (PSI)*. Jarvi K, Diamandis EP, Drabovich A. (\$72,000.00 CAD May 2016 - Apr 2018).

### Marsh Book Signing



Distinguished Service to Joint Center for Bioethics (JCB) Award.





## North York General Hospital

**Lloyd Smith**, *Surgeon-in-Chief*

This has been a busy year in the Department of Surgery at North York General Hospital. In March, our hospital went through a four day accreditation with Accreditation Canada. The hospital was accredited with exemplary standing. There were 2,500 criteria used to evaluate the hospital and North York General Hospital met 99.8% of the requirements.

In the Department of Surgery our Breast Program underwent its own accreditation with the NSABP. Our hospital became the first accredited Breast Program in Canada and only the second program to be accredited outside of the United States.

The Department of Surgery at North York General Hospital implemented the NSQIP program in January of this year. The medical lead for this is Dr. David Smith. Dr. Smith and his team have been auditing cases from each of the surgical divisions looking for areas for potential quality improvement. For the second year in a row, North York General Hospital was noted by Cancer Care Ontario to have the best surgical wait times for cancer cases in the province of Ontario.

The NYGH Preoperative Clinic was restructured in 2015 and we developed guidelines to reflect best practices for perioperative assessment. This resulted in a 40% reduction in patient visits and patient testing. The NYGH guidelines were adopted for the provincial Choosing Wisely campaign.

In Breast Oncology we implemented a program for the DIEP free flap reconstruction after breast cancer surgery. This is a joint venture between the Divisions of Plastics and General Surgery.

Our division of Plastic Surgery was selected to be the first Canadian site in a ongoing multi-centered trial looking at outcomes in peripheral nerve grafting (RANGER TRIAL).

Overall, this has been a very good year for us here at NYGH. We are looking forward to the challenges and opportunities that this next year will bring.

### Recruitment

Dr. Nicole Golda – Urology  
Dr. Usmaan Hameed – General Surgery  
Dr. Natalya Zhang – General Surgery

### Awards and Recognition

Dr. Stan Feinberg –  
The Marcus Burnstein award for Best Presentation at the annual Update in General Surgery  
Dr. Fahima Osman – Toronto Citizen of the Year award  
Dr. Peter Stotland – Barry Tobe award for surgical innovation  
Dr. Natalya Zhang – Family Practice Teaching award



### Division Heads:

General Surgery – Dr. Nancy Down  
Orthopedics – Dr. Hossein Mehdian  
Plastics – Dr. Bernd Neu  
Urology – Dr. Roger Buckley

### Division of General Surgery

Dr. Yasser Botros  
Dr. Nancy Down (Division Head)  
Dr. Stan Feinberg  
Dr. Ian Forrest  
Dr. Usmaan Hameed  
Dr. Simon Iu  
Dr. Neelesh Jain  
Dr. Donna Mcritchie  
Dr. Fahima Osman  
Dr. Brian Pinchuk  
Dr. David Smith  
Dr. Peter Stotland  
Dr. Natalya Zhang

### Division of Orthopaedics

Dr. Robert Brock  
Dr. Gladys Chan  
Dr. Dale Dantzer  
Dr. John Faulkner  
Dr. Shawn Garbedian  
Dr. Hossein Mehdian (Division Head)  
Dr. Christopher John Peskun  
Dr. Edward Rumble

### Division of Plastics

Dr. Yasser El-Sheikh  
Dr. Mary-Helen Mahoney  
Dr. Bernd Neu (Division Head)  
Dr. Sean Rice  
Dr. Petra Schiller  
Dr. Ron Somogyi

### Division of Urology

Dr. Roger Buckley (Division Head)  
Dr. Stanley Flax  
Dr. Nicole Golda  
Dr. David Hajek  
Dr. Jeff Noakes  
Dr. Les Spevack



## Publications

**Brown M, Somogyi R.** Surgical Strategies in the Correction of the Tuberos Breast. *Cliics in Plastic Surgery.* 2015 Oct; 42(4):531-549.

## Honours and Awards

**Somogyi, Ron Barry:** Marjory Morphy Award for Research Support, Medical Staff Association, North York General Hospital. 2016.

## Faculty Development Day



## Naylor Building



## Travelling Surgical Society of Great Britain and Ireland



## Latter Hagen Faculty Development Day 2015







## St. Joseph's Health Centre

**Chris Compeau, Surgeon-in-Chief**

Clinical excellence in surgery as well as an outstanding educational experience for undergraduate, graduate and post-graduate trainees continues to be the hallmark of the Department of Surgery at St. Joseph's Health Centre. Our surgical priority programs (hepatobiliary, thoracic surgery, bariatrics, arthroplasties) continue to maintain or grow in volumes. There has been a significant increase in the number of clinical clerks from the University of Toronto who rotate through the surgery program at St. Joseph's primarily through our relationship with the Fitzgerald Academy at St. Michael's Hospital. A surgical teaching clinic was established this past year with the assistance of the Department of Medical Education and Scholarship at St. Joe's. This clinic is supervised by the surgical chief resident and provides a prospective opportunity for learners to see patients in follow-up that they have evaluated in the emergency department and, often, have operated on. Preliminary feedback indicates that this clinic experience provides an excellent longitudinal educational experience that prepares trainees for transition to surgical practice. This and other surgical initiatives at St. Joseph's are helping to prepare both our educators and trainees for the Royal College of Surgeons transition to a Competency by Design (CBD) educational framework.

### Division Heads

General Surgery	Paul Sullivan
Thoracic Surgery	Maurice Blitz
Orthopedic Surgery	Amr El Maraghy
Plastic Surgery	Craig Fielding

### Recruitment

A new HPB surgeon has just been hired.

### Departures

There were no retirements from the surgical program in the past fiscal year.

### Education

Dr. Maurice Blitz is director of the Surgical Foundations Program at the University of Toronto.

Dr. Shiva Jayaraman was director of this year's Canadian Surgical Forum held in Toronto.

Dr. Chris Compeau is chair of the Thoracic Surgery Royal College examination committee.

Dr. Michael Ko was a recipient of the Department of Medical Education and Scholarship (DMES) teaching award for postgraduate medical education at St. Joseph's Health Centre in 2015-16.



### Divisional teaching award winners 2015-16:

- General/thoracic surgery – Dr. M. Ko
- Urology – Dr. T. McLean
- Plastic surgery – Dr. K. Wanzel
- Orthopedic surgery – Dr. A. El Maraghy

### Invited Visits

**Kasrai, Leila.** Lebanese Society of Plastic, Reconstructive and Aesthetic Surgery (LSPRAS) – 50<sup>th</sup> Anniversary Meeting, Beirut, Lebanon, April 27, 2016. Invited Lecturer: Single stage ear reconstruction.

**Kasrai, Leila.** Canadian Society of Plastic Surgeons, Ottawa, Ontario, June 16, 2016. Invited Lecturer: The fabric of surgery.



## St. Michael's Hospital

**Dr. Ori D. Rotstein,**  
*Surgeon-in-Chief*

### Division Heads

Cardiac Surgery:	Dr. David Latter
General Surgery:	Dr. Nancy Baxter
Neurosurgery:	Dr. Julian Spears (Interim)
Orthopaedic Surgery:	Dr. Tim Daniels
Plastic & Reconstructive Surgery	Dr. James Mahoney
Urology:	Dr. Kenneth Pace
Vascular Surgery:	Dr. Mohammed Al-Omran

This past year, St. Michael's Hospital and partners have been working to execute the current strategic plan. This plan focuses on a new vision of world leadership in urban health. Our commitment to this plan is to excel in the care of our critically ill patients, provide comprehensive care for our urban community, and advance systems of care for disadvantaged patients. The Department of Surgery is committed to ensuring that we contribute to these goals through our clinical, education, and research endeavours. The structure of the Peter Gilgan Patient Care Tower is quickly coming to fruition and has changed the landscape at the corner of Queen and Victoria Streets. This 17-storey tower will house 5 new "state of the art" operating rooms, each large enough to include medical imaging equipment such as CT scanners, x-rays and MRIs. The tower will also have expanded intensive care units for coronary and medical-surgical patients, as well as larger inpatients units for surgical specialties including orthopaedic surgery.

We welcomed three new faculty members to the Department of Surgery at St. Michael's Hospital:

Dr. Karen Cross joined the Division of Plastic Surgery. Dr. Cross completed her plastic surgery residency at the University of Toronto and received her PhD through the renowned Surgeon Scientist Program at the University of Toronto. Her PhD was a joint collaboration between the University of Toronto and the Medical Research Council of Canada- Institute for Biodegnostics. Her area of clinical expertise is in the reconstruction of complex wounds from trauma, cancer, infection or disease. She is an Associate Scientist in the Keenan Research Centre with interests in the application of novel optical imaging tools to assess skin physiology and wound healing. She works closely with physicians at Ryerson University, being an integral member of the Institute for Biomedical Engineering, Science & Technology (iBEST), the hospital's research initiative with Ryerson.

Dr. Bobby Yanagawa joined the Division of Cardiac Surgery. Dr. Yanagawa completed his residency training at the University of Toronto before moving onto an advanced valvular fellowship in New York City. He received his PhD in cardiovascular pathology from the University of British Columbia, before moving on to complete post-doctoral fellowships in the United Kingdom and Japan. His clinical focus is minimally-invasive cardiac surgery including off-pump surgical revascularization, hemisternotomy aortic valve surgery and mitral valve surgery through a minithoracotomy. He is an Associate Scientist with a



research focus is the area of

Dr. Sarah Ward joined the Division of Orthopaedic Surgery. Dr. Ward completed her residency training at the University of Toronto. She has also completed two fellowships at St. Michael's Hospital incorporating training in hip and knee arthroplasty, sports, trauma and upper extremity reconstruction. Her research focus is in the area of Quality Improvement and Patient Safety. She will work with multidisciplinary teams to promote quality improvement and patient safety initiatives both within and beyond the Division of Orthopaedics.

We said farewell to a few faculty members this year for various reasons. In vascular surgery, Dr. Tony Moloney returned with his family to their native Ireland. Dr. Wolfgang Kuebler, Scientific Director of the Critical Illness and Injury Research Centre at the Keenan Research Centre for Biomedical Science has accepted a leadership role at the University of Berlin- Charité, Institute of Physiology in Berlin, Germany. Dr. Emil Schemitsch has taken the position of Chair, Department of Surgery at the University of Western in London, Ontario. Dr. R. John Honey, who has been an outstanding clinician, teacher, and researcher throughout his career has decided to retire. Dr. Honey was the Director of Endourology at the University of Toronto and the director of the Lithotripsy and Kidney Stone Centre at St. Michael's. He was Head, Division of Urology at St. Michael's from 1995 to 2012. In 1998 he was the founding director of the St. Michael's Hospital, Endourology Fellowship Program. He was instrumental in bringing the first surgical robot in Toronto to St. Michael's in 2008. He has a number of publications in the clinical area of shockwave lithotripsy changing the way it is practiced globally. He has won several awards for his contributions and dedication to education, simulation, and the development of teaching models. We wish all three the very best in their future adventures.

Each June we celebrate with the annual St. Michael's Hospital Physician Achievement Awards. These awards are given to those who have dedicated their time and commitment to the educational mission at many levels over the past year. Dr. Jason Lee won the Donald J. Currie Teaching Award in Undergraduate Education; Dr. Jesse Wolfstadt won the McGoey Teaching Award in Orthopaedic Surgery; Dr. Joao Rezende won the William Horsey Postgraduate Teaching Award; the Jameel Ali Award in Continuing Education Award in Surgery went to Dr. Najma Ahmed; Dr. Tyler Chesney won the Leo J. Mahoney Resident Teaching Award, and Dr. Melinda Musgrave received the FitzGerald Academy's, Master Teacher Award. Dr. Earl Bogoch was honoured with the St. Michael's Hospital Foundation, Squires-Hyland Trust James Waddell Mentoring Award at a separate ceremony. Many other faculty have won various awards and accolades

in the areas of education and research. To name a few, Dr. Subodh Verma has been selected as a member of the 2015 cohort of the College of New Scholars, Artists and Scientists of the Royal Society of Canada. Dr. Verma and colleagues also recently launched the CARDIOLINK platform of randomized clinical trials across several cardiac related pillars. Several our faculty have received research awards. Of note, Dr. Tim Daniels has been awarded the Roger A. Mann Award for the fourth time, and Dr. Najma Ahmed received the

prestigious Donald R. Wilson Award from the Royal College of Physicians and Surgeons of Canada for her contribution to medical education.

It has been a terrific year for our Department and I am personally indebted to our Faculty for their commitment to excellent patient care and for their unwavering support of the academic mission.

## Division of Cardiac Surgery

<b>Dr. D. Bonneau</b>	Associate Professor
<b>Dr. L.E. Errett</b>	Professor
<b>Dr. D.A. Latter</b>	Professor (Division Head)
<b>Dr. M. Peterson</b>	Associate Professor
<b>Dr. S. Verma</b>	Professor
<b>Dr. R. Yanagawa</b>	Assistant Professor

## Publications

**Alnasser SM, Benhomeid O, Peterson MD, Buller CE, Latter D, Deva DP, Cheema AN.** Balloon-Expandable and Self-Expanding Transcatheter Heart Valves: Friend or Foe? *J Heart Valve Dis.* 2015 Sept; 24(5): 640-3.

**Appoo JJ, Bozinovski J, Chu MW, El-Hamamsy I, Forbes TL, Moon M, Ouzounian M, Peterson MD, Tittley J, Boodhwani M, CCS/CSCS/CSVs Thoracic Aortic Disease Guidelines Committee.** Canadian Cardiovascular Society/Canadian Society of Cardiac Surgeons/Canadian Society for Vascular Surgery Joint Position Statement on Open and Endovascular Surgery for Thoracic Aortic Disease. *Can J Cardiol.* 2016 Jun; 32(6): 703-13.

**Bagai A, Bhatt DL, Eikelboom JW, Mancini GBJ, Cohen EA, Vijayaraghavan R, Cheema AN, Udell JA, Niznick J, Tanguay J-F, Verma S, Mehta SR.** Individualizing Duration of Dual Antiplatelet Therapy after Acute Coronary Syndrome or Percutaneous Coronary Intervention. *Circulation.* 2016 Jan; 133(21): 2094-8.

**Bossone E, Pyeritz RE, Braverman AC, Peterson MD, Ehrlich M, O'Gara P, Suzuki T, Trimarchi S, Gilon D, Greason K, Desai ND, Montgomery DG, Isselbacher EM, Nienaber CA, Eagle KA, IRAD Investigators.** Shock complicating type A acute aortic dissection: Clinical correlates, management, and outcomes. *Am Heart J.* 2016 Jun; 176:93-9.

**Chen YA, Deva D, Kirpalani A, Prabhudesai V, Marcuzzi DW, Graham JJ, Verma S, Jimenez-Juan L, Yan AT.** Multimodality Imaging for Resuscitated Sudden Cardiac Death. *J Cardiovasc Med.* 2015; 16:S1-3.

**Chu MW, Losenno KL, Gelinas JJ, Garg V, Dickson J, Harrington A, Verma S, Peterson MD.** Innominate and Axillary Cannulation in Aortic Arch Surgery Provide Similar Neuroprotection. *Can J Cardiol.* 2016 Jan; 32(1): 117-23.

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**Ehsan M, Singh SS, Lovren F, Pan Y, Quan A, Mantella LE, Sandhu P, Teoh H, Al-Omran M, Verma S.** Adiponectin Limits Monocytic Microparticle-Induced Endothelial Activation by Modulation of the AMPK, Akt and NFκB Signaling Pathways. *Atherosclerosis.* 2016 Feb; 245: 1-11.

**El-Hamamsy I, Ouzounian M, Demers P, McClure S, Hassan A, Dagenais F, Chu MW, Pozeg Z, Bozinovski J, Peterson MD, Boodhwani M, McArthur RG, Appoo JJ, Canadian Thoracic Aortic Collaborative (CTAC).** State-of-the-Art Surgical Management of Acute Type A Aortic Dissection. *Can J Cardiol.* 2016 Jan; 32(1): 100-9.

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**Fedak PW, Barker AJ, Verma S.** Year in review: bicuspid aortopathy. *Curr Opin Cardiol.* 2016 Mar; 31(2): 132-138.

**Fitchett DH, Hegele RA, Verma S.** Statin intolerance. *Circulation.* 2015; 131: e389-e391.

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**Guzzardi DG, Barker AJ, van Ooij P, Malaisrie SC, Puthumana JJ, Belke DD, Mewhort HE, Svystonyuk DA, Kang S, Verma S, Collins J, Carr J, Bonow RO, Markl M, Thomas JD, McCarthy PM, Fedak PW.** Valve-Related Hemodynamics Mediate Human Bicuspid Aortopathy: Insights From Wall Shear Stress Mapping. *J Am Coll Cardiol.* 2015 Aug 25; 66(8): 892-900.

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- Yeung JC, Marcuzzi D, Peterson MD, Ko MA.** Management of severe asymmetric pectus excavatum complicating aortic repair in a patient with Marfan's syndrome. *Interact Cardiovasc Thorac Surg.* 2016 May;22(5):674-5.
- Zhu YM, Anderson TJ, Sikdar K, Fung M, McQueen MJ, Lonn EM, Verma S.** Association of Proprotein Convertase Subtilisin/Kexin Type 9 (PCSK9) with Cardiovascular Risk in Primary Prevention. *Arterioscler Thromb Vasc Biol.* 2015 Oct; 35: 2254-2259.

## Invited Visits

**Bonneau, Daniel.** Liva Nova, Orlando, Florida, February 2016. Training Director: Perceval sutureless valves.

**Peterson, Mark.** Canadian Cardiovascular Society, Toronto, Ontario, October 23–26, 2015. 1) Invited Speaker: TAVR Heart Team: What could be done better? Workshop: The Heart Team: What Have We Learnt And Where Are We Headed? 2) Panel Member: CCS/CSCS/CSVs Position Statement on Thoracic Aortic Disease Interventions. 3) The Great TAVI Debate Plenary Session: Debated TAVR 1) TAVI is being overused and performed in patients who derive little benefit (excessive fragility and heart failure) - have we gone too far? 4) TAVI is accused of becoming the preferred intervention for standard AV disease (replacing open AVR) in patients at moderate operative risk (age 65 to 80). 5) Invited Speaker: Bioprosthetic Valve Replacement in the Young Patient: Is This A Viable Long-Term Option? 6) Co-Chair: ACE Trial: A Randomized Trial of Innominate vs. Axillary Artery Cannulation in Aortic Surgery.

**Peterson, Mark.** Canadian Society of Cardiac Surgeons/Canadian Cardiovascular Society, Montreal, Quebec, March 4–6, 2016. Invited Speaker: 1) Role of the Surgeon in a TAVI Program. 2) Aortic Surgery: St. Michael's Approach 1 hour review of aortic surgery for Trainee Review Course.

**Peterson, Mark.** Canadian Update in Surgical Procedures 2016, Toronto, Ontario, April 16, 2016. Speaker: 1) ACE Trial Update: A Randomized Trial of Innominate vs Axillary Cannulation in Aortic Surgery. 2) Prophylactic Sealant vs Control on the need for blood transfusions in aortic reconstructive surgery: case matched analysis.

**Peterson, Mark.** Manitoba Cardiac Sciences Program, Winnipeg, Manitoba, September 29, 2015. Visiting Professor: Manitoba Transformation in Cardiac Surgery: Innovations in Traditional Open and Catheter Based Surgery.

**Yanagawa, Bobby.** AATS Coronary Congress, New York, NY, August 2015. Speaker: Myth Busters: Does Coronary Artery Bypass Grafting Impact Progression of Native Coronary Artery Disease?

## Research and Investigations

Cardiovascular Outcomes Assessment of the MitraClip Percutaneous Therapy for Heart Failure Patients With Functional Mitral Regurgitation (COAPT). *Evalue Inc. Verma S, Fam N.* (Jan 2016 – Jan 2022).

In Vivo and Translational Role of Endothelial Autophagy in the Regulation of Vascular Diseases. *Canadian Institutes of Health Research (CIHR). Verma S.* (Jul 2015 – Jun 2020).

## Honours and Awards

**Verma, Subodh:** Royal Society of Canada College of New Scholars, Artists and Scientists Distinction September 2015.

## Division of General Surgery

<b>Dr. N. Ahmed</b>	Associate Professor
<b>Dr. J. Ali</b>	Professor
<b>Dr. N. Baxter</b>	Professor (Division Head)
<b>Dr. J.M.A. Bohnen</b>	Professor
<b>Dr. M.J. Burnstein</b>	Associate Professor
<b>Dr. S. de Montbrun</b>	Assistant Professor
<b>Dr. R. George</b>	Associate Professor
<b>Dr. T. Grantcharov</b>	Professor
<b>Dr. A. Kapus</b>	Professor
<b>Dr. W. Kuebler</b>	Associate Professor
<b>Dr. B. Lawless</b>	Assistant Professor
<b>Dr. J.C. Marshall</b>	Professor
<b>Dr. J. Rezende-Neto</b>	Associate Professor
<b>Dr. S. Rizoli</b>	Professor
<b>Dr. O. Rotstein</b>	Professor
<b>Dr. A.S. Scheer</b>	Assistant Professor
<b>Dr. J.S. Simpson</b>	Assistant Professor
<b>Dr. K. Szaszi</b>	Associate Professor

## Publications

**Abreu EMS, Machado CJ, Pastore-Neto M, Rezende-Neto JB, Sanches MD.** The impact of a chest tube management protocol on the outcome of trauma patient with tube thoracostomy. *Rev Col Bras Cir.* 2015 Jul; 42(4): 231–236.

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- Alhaizaey A, Hussain MA, Aljabri B, Al-Omran M.** Aneurysms of the foot arteries. *Vascular*. 2016 Feb; 24(1):109-12.
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- Ali J, Rizoli S, Pavenski K.** The Coagulopathic Trauma Patient and Massive Transfusion Protocol. 2016. *The Surgical Critical Care Handbook: A Guide to Care of the Critically Ill Surgical Patient*. J. Ali (ed). World Scientific.
- Altoijry A, Al-Omran M, Johnston KW, Mamdani M, Lindsay TF.** Temporal trends in vascular trauma in Ontario, 1991-2009: a population-based study. *CMAJ Open*. 2016 Jun 8; 4(2):E309-15.
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- Baxter N.** Surgical Safety Checklists. *Audio-Digest General Surgery*. 2016; 63;10.
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## Invited Visits

**Ahmed, Najma.** American College of Surgeons, Chicago, Ill, October 5, 2015. Invited Speaker: Preserving and advancing surgical education in a world with no time.

**Baxter, Nancy.** Bill Carroll, Talk Radio, AM 640, Toronto, Ontario, August 8, 2015. Invited Speaker: How fatigue affects surgeon performance.

**Baxter, Nancy:** Caroll Off, CBC Radio: As It Happens, Toronto, Ontario, August 8, 2015. Invited Speaker: Outcomes of Daytime Procedures Performed by Attending Surgeons after Night Work.

**Baxter, Nancy.** 9th Annual PPCR - Principles and Practice of Clinical Research Course, Burlington, Ontario, October 1, 2015. Invited Speaker: Level II: What is a Prospective Cohort Study?

**Baxter, Nancy.** Linyi People's Hospital, Linyi, Shandong, China, October 13, 2015. Visiting Professor: Lynch Syndrome in China.

**Baxter, Nancy.** 78th Annual University of Minnesota Principles of Colon & Rectal Surgery Course, Minneapolis, Minnesota, October 22, 2015. Bernstein Lecturer: 1) Lymph Node Retrieval: Does It Matter. 2) Difficile: Surgical Alternatives For Fulminant Colitis. 3) Surgical Safety Checklists: Do They Help? 4) Improving Quality Through Process Change: Can It Be Done?

**Baxter, Nancy.** Astro: Targeting Cancer Care, San Diego, California, November 13, 2015. Invited Speaker: Rectal Cancer Clinical Practice Statement: One Size Does Not Fit All.

**Baxter, Nancy.** Association of Gastroenterology (OAG) 19th Annual Conference and Business Meeting, Toronto, Ontario, November 15, 2015. Invited Speaker: Ontario Quality-Based Procedures (QBP) Update.

**Baxter, Nancy.** Georgian Bay Oncology Group, Barrie, Ontario, January 11, 2016. Invited Speaker: The GI Endoscopy QBP: What's Happening for Ontario and North Simcoe/Muskoka.

**Baxter, Nancy.** 2016 Gastrointestinal Cancers Symposium, San Francisco, California, January 23, 2016. Invited Speaker: Difficult Cases in Rectal Cancer (ARS) - Surgeon Perspective.

**de Montbrun, Sandra:** European Society of Coloproctology Annual Meeting, Dublin, Ireland, September 23, 2015. Invited Speaker: Assessing technical competence for certification in colorectal surgery: the North American experience Educational Session: The Future of Colorectal Simulated Training.

**de Montbrun, Sandra.** The American Society of Colon and Rectal Surgery Annual Meeting, Los Angeles, California, May 1, 2016. Invited Speaker: Colon and Rectal Surgery Training and Beyond: Education for Colorectal Surgeons - Simulations and Simulators.

**George, Ralph.** Dermatology Regional Meeting, Quebec City, Quebec, September 18, 2015. Invited Speaker: 1) Hidradenitis Suppurativa. Overview Treatment and Management. 2) Changing Paradigms in HS management.

**George, Ralph.** Canadian Dermatology Association, December 15, 2015. Presenter: Surgical Management HS Online CPD.

**George, Ralph.** Canadian General Surgery Review, Toronto, Ontario, February 27, 2016. Speaker: Benign Breast Disease.

**George, Ralph.** Canadian Association of Emergency Physicians, Quebec City, Quebec. Presenter: Breaking News Alert: Outbreaks of Boils. Recognizing HS and Initial management.

**George, Ralph.** LHIN 4, Hamilton, Ontario, May 27, 2016. Invited Speaker: Role of Breast Conservation and Sentinel Node Biopsy in LABC Consensus Conference on Locally Advanced Breast Cancer.

**George, Ralph.** University of Saskatchewan, Saskatoon, Saskatchewan, June 18, 2016. Presenter: National Specialty Society: CAGS role in Canada Day in Surgery.

**George, Ralph.** Canadian Dermatology Association, Saskatoon, Saskatchewan, June 24, 2016. Presenter: The Patient's Journey in HS.

**Grantcharov, Teodor.** The Royal College of Surgeons of Edinburgh, Birmingham, United Kingdom, October 22, 2015. Invited Speaker: Individualized Training Interventions to Enhance Surgical Performance and Patient Safety.

**Grantcharov, Teodor.** International Conference of Surgical Education and Training (ICOSSET), Copenhagen, Denmark, November 30, 2015. Keynote Speaker: Strategies to Improve Performance and Safety in the Operating Room.

**Grantcharov, Teodor.** Hillcrest Healthcare, Salt Lake City, Utah, January 30, 2016. Keynote Speaker: Strategies to Improve Performance and Safety in the Operating Room.

**Grantcharov, Teodor.** FOJP, New York City, New York, March 2, 2016. Keynote Speaker: Modern Strategies to Improve Performance and Safety in the Operating Room.

**Grantcharov, Teodor.** Cleveland Clinic, Cleveland, Ohio, April 6, 2016. Roland S. Philip Lecturer: Strategies to Improve Performance and Safety in the Operating Room.

**Grantcharov, Teodor.** Canadian Conference on Medical Education, Montreal, Quebec, April 17, 2016. Keynote Speaker: Educational Strategies to Improve Surgical Performance and Patient Safety.

- Grantcharov, Teodor.** Department of Surgery, University of Calgary, Calgary, Alberta, April 22, 2016. Visiting Professor: Strategies to Improve Surgical Performance and Safety.
- Grantcharov, Teodor.** Swiss Surgical Society, Lugano, Switzerland, June 1, 2016. Keynote Speaker: Training in Minimally Invasive Surgery.
- Grantcharov, Teodor.** Academic Medical Centre, Amsterdam, Netherlands, June 8, 2016. Visiting Professor: 1) Strategies to Enhance Knowledge Translation in Simulation Research. 2) Operating Room Black Box. 3) Competency Based Education in Surgery.
- Grantcharov, Teodor.** European Association of Endoscopic Surgery, Amsterdam, Netherlands, June 17, 2016. Sir Alfred Cuschieri Technology Lecturer: 1) Operating Room Black Box. 2) Systems for Safety in the Operating Room. 3) Strategies to Improve Performance and Safety in the Operating Room Spinoza Lecture.
- Grantcharov, Teodor.** Stanford Medicine, Palo Alto, California, June 23, 2016. Invited Speaker: Operating Room Black Box.
- Marshall, John C.** 12th World Congress of Intensive and Critical Care Medicine, Seoul, Korea, August 29 – September 1, 2015. Invited Speaker: 1) Critical illness is an iatrogenic disorder. 2) Global collaboration for sepsis research. 3) Guidelines are the future of sepsis management – Con. 4) Global collaboration for acute care research. 5. Report of the WFSICCM Task Force: What is an ICU?
- Marshall, John C.** 4th Simposio Nacional de Sepsis, Cali, Colombia, September 10-11, 2015. Invited Speaker: 1) The PIRO Model: Predisposition, Insult, Response, Organ Dysfunction. 2) Targets for vasopressor therapy in septic shock. 3) Inflammation, coagulopathy, and the pathogenesis of the Multiple Organ Dysfunction Syndrome.
- Marshall, John C.** First Endotoxemia Congress, Gurgaon, India, September 26, 2015. Invited Speaker: 1) New concepts, new models: Critical care 2015. 2) Endotoxin in critical illness: Significance and therapeutic implications. 3) Testing new treatments in complex diseases: EUPHRATES and beyond.
- Marshall, John C.** 2nd ICON Conference, Cebu, Manila Philippines, November 12-13, 2015. Invited Speaker: 1) Surgical source control and the difficult abdomen. 2) Deresuscitation of the critically ill patient.
- Marshall, John C.** International Severe Acute Respiratory and Emerging Infection Consortium Meeting, London, UK November 30 – December 1, 2015. Invited Speaker: Capacity building, collaboration, and networking: The critical care perspective.
- Marshall, John C.** 20th Annual Meeting, Japanese Society of Critical Care for Endotoxemia, Tokyo, Japan, January 29-30, 2016. Invited Speaker: Hope, hype, and Hippocrates: The ongoing challenges of sepsis research.
- Marshall, John C.** Sepsis 2016/22nd Annual Conference of the Indian Society of Critical Care Medicine, Agra, India, February 5-6, 2016. Invited Speaker: 1) Pandemics: How to prepare. 2) Outcome measures for ICU trials. 3) Peritonitis. 4) Investigator-led research: The Canadian Critical Care Trials Group. 5) Basic immunology for the intensivist.
- Marshall, John C.** Scientific Computing for Improved Diagnosis and Therapy of Sepsis (SCIDATOS) Inaugural Meeting, Heidelberg, Germany, February 18-19, 2016. Invited Speaker: Molecular therapies for sepsis: Why have they failed?
- Marshall, John C.** Leopoldina Symposium: Sepsis: The challenges of science, politics and society, Jena, Germany, March 10-11, 2016. Invited Speaker: The role of the ICU in the response to pandemics.
- Marshall, John C.** 36th International Symposium of Intensive Care and Emergency Medicine, Brussels, Belgium, March 15 – 18, 2016. Invited Speaker: 1) What is an ICU? 2) Deresuscitation. 3) Why do good trials yield divergent results? 4) Priorities in the management of trauma.
- Marshall, John C.** 13th International Sepsis Forum, Latin American Sepsis Institute, Sao Paulo, Brazil, April 7-8, 2016. Invited Speaker: 1) Failure: The inevitable pathway of sepsis protocols. 2) Deresuscitation: The final stage in sepsis management. 3) CCCTG: What is next in sepsis clinical trials?
- Marshall, John C.** American Thoracic Society Workshop on Determining the Outcome Measures for Recovery after Critical Illness, San Francisco, CA, May 14, 2016. Invited Speaker: The International Forum for Acute Care Trialists (InFACT). Outcome Measures Working Group.
- Marshall, John C.** 14th Symposium of Medical Emergency and Critical Care 2016, Santiago, Chile, May 12-14, 2016. Invited Speaker: 1) Sepsis 2016: Are we making progress? 2) The Multiple Organ Dysfunction Syndrome (MODS) at 40. 3) Acinetobacter infection in the ICU. 4) Why do good trials yield divergent results?
- Marshall, John C.** Shock Society Annual Meeting, Austin, TX, June 11-14, 2016. Invited Speaker: The Multiple Organ Dysfunction Score: The role of the doctor.
- Rezende-Neto, Joao.** Trauma 2016 Annual Scientific Meeting and Conference – Trauma Association of Canada Annual Meeting, Halifax, Nova Scotia, May 2016. Speaker: A Novel Device to Control Bleeding in Penetrating Cardiac Injuries.
- Rezende-Neto, Joao.** Joint Academic Meeting, Department of Surgery, St. Michael's and Sunnybrook Hospitals and the Travelling Society of Great Britain and Ireland, Toronto, Ontario, June 7, 2016. Difficult Abdominal Wall Closure: Current State and Novel Approaches.
- Rizoli, Sandro.** II International Symposium on the Care for the Injured Patient, Sao Paulo, Brazil, August 1, 2015. Lecturer: 1) Focus intra-operative bleeding: pitfalls. 2) Coagulopathy prevention: how to achieve it?
- Rizoli, Sandro.** XXVIII Panamerican Clinical Congress of Trauma, Santa Cruz, Bolivia, November 14, 2015. Lecturer: 1) North vs. South debate. 2) How to resuscitate injured patients taking the novel oral anticoagulants. 3) Blood transfusions should be tailored to the patient in front of you.
- Rizoli, Sandro.** 14th Annual Kuwait Postgraduate Assembly in Surgery and 3rd Annual Kuwait Surgical Society Meeting, Kuwait, January 2016. Lecturer: 1) Assessment and management of massive bleeding. 2) Blunt hepatic trauma. 3) Management of stab wounds to the anterior abdominal wall. 4) Evidence based telemedicine (5) Further understanding traumatic brain injury.
- Rizoli, Sandro.** 9th Annual Blood & Beyond Conference, Halifax, Nova Scotia, April 23, 2016. Presenter: 1) State of the art trauma management. 2) Viscoelastic hemostatic monitoring for decision support.



**Rizoli, Sandro.** University of Santo Amaro, São Paulo, Brazil, April 26-28, 2016. Visiting Professor: 1) Definitive Surgical Trauma Course (DSTC). 2) Trauma, bleeding and coagulopathy.

**Rizoli, Sandro.** XVIII Trauma Course and Pre-Congress of the Brazilian Trauma Leagues, State University of Campinas (UNICAMP), Campinas, Brazil, April 28, 2016. Lecturer: Coagulopathy in trauma, management from pre-hospital to ICU.

**Rotstein, Ori.** Royal College of Surgeons in Ireland, Dublin, Ontario, September 18, 2015. Invited Speaker: Surgical Careers in Canada.

**Rotstein, Ori.** St. Joseph's Health Centre, London-Toronto Lung Research Symposium, London, Ontario, September 25, 2015. Invited Speaker: Macrophage polarization in lung injury following hemorrhagic shock.

**Rotstein, Ori.** Consultants Meeting, Toronto, Ontario, December 2015. Invited Speaker: Pathogenesis, Clinical and Economic Impact of Delayed Gastrointestinal Recovery & Consultation.

**Scheer, Adena:** 4th minimally invasive and Oncoplastic surgery for breast cancer symposium and 10th international academic week, surgical oncology symposium in Hangzhou, China, October 15-18, 2015. Invited Speaker: Oncoplastic breast cancer surgery.

**Simpson, Jory.** The Filipino Canadian Medical Association, Toronto, Ontario, May 15, 2016. Presenter: Breast Cancer in the Filipino Community.

## Research and Investigations

2017 Investigating Organizational Drivers of Resident Fatigue. *Maggie J, Ahmed N, Dang K, Covington S.* (\$21,972.00 CAD 2016).

A Non-Traumatic Binder for Temporary Abdominal Wall Closure. *Canadian Institutes of Health Research (CIHR). Rezende-Neto JB.* (\$57,884.00 CAD Oct 2015 – Sept 2016).

A systematic review, modified delphi survey and Canadian consensus conference on contralateral prophylactic mastectomy for non-high risk women with unilateral early stage breast cancer or DCIS. *Canadian Institutes of Health Research (CIHR). Baxter N, Wright F, Covelli A, Gagliardi A, Look Hong N, Quan M.* (\$10,000.00 CAD Jan 2016 - Jan 2017).

Advancing Cancer Prevention in Deprived Neighbourhoods. *Canadian Cancer Society. Paszat L, O'Brien MA, Lofters A, Pinto A, Selby P, Sutradhar R, Baxter N, Donnelly P, Gardner C, Glazier R, Grunfeld E, Kyle R, Manca D, Nesbitt J, Pellizzari R, Petrusiak MA, Rabeneck L, Simon L, Sullivan F, Timmouth J, Wall B, Lansdorp-Vogelaar I.* (\$597,042.00 CAD Nov 2015 – Oct 2019).

An in-depth assessment of the psychosocial impact of high risk breast cancer screening. *Cancer Care Ontario. Scheer A, Bombard Y, Grunfeld E, Metcalfe K, Muradali D, Xin Y.* (\$5,000.00 CAD Jun 2015 – Jun 2016).

Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE): A Randomized Controlled Clinical Trial. *Canadian Institutes of Health Research. Daneman N, Fowler RA, Bagshaw SM, Coburn BA, Cook DJ, Dodek PM, Hall RI, Kumar A, Lamontagne F, Lauzier F, Marshall JC, Martin CM, McIntyre LA, Muscedere J, Reynolds SC, Stelfox HT.* (\$100,000.00 CAD Jul 2015 – Jun 2016).

Co-Designing Screening Invitations with Patients to Reduce Income-Related Disparities in Cancer Screening. *St. Michael's Hospital. Kiran T, Lofters A, Baxter N.* (\$81,768.76 CAD Apr 2016 – Apr 2018).

Crystalloid FLUID Choices for Resuscitation of Hospitalized Patients: A Pragmatic Cluster Cross Over Pilot Trial. *Canadian Institutes of Health Research (CIHR). McIntyre LA, Taljaard M, Christian M, Fergusson D, Forster A, Fox-Robichaud A, Graham I, Hawken S, Marshall J, Martin C, Maybee A, McCartney C, Muscedere J, Saginur R, Seely A, Stiell I, Thavorn K.* (\$135,935.00 CAD Jul 2015 – Jun 2016).

Distal Radius Fracture Care in the Province of Ontario: Factors Impacting Management. *Physicians' Services Incorporated (PSI) Foundation. Baxter N, Armstrong K, von Schroeder H, Zhong T, McCabe S.* (\$18,500.00 CAD Feb 2015 – Feb 2016).

Establishing Feasibility & Safety of Providing Critical Care for Patients with Ebola through design of a simulated Ebola Treatment Centre. *Canadian Institutes of Health Care Research. Fowler RA, Adhikari NK, Bah EI, Chan A, Christian MD, Hajek J, Hall TN, Lamah MC, Lamontagne F, Marshall JC, Mishra S, Murthy S, Piquette D, Simor E, Vanderschuren A.* (\$249,973.00 CAD Jun 2015 – Jun 2016).

Genomics ADvISER: A genomics decision AiD on Incidental SEquencing Results. *University of Toronto McLaughlin Centre. Bombard Y, Lerner-Ellis J, Schrader K, Watkins N, Kim R, Elser C, Baxter NN, Scheer A, Evans M, Kastner M, Thorpe K, Laupacis A, Robson M, Glogowski E.* (\$60,000.00 CAD May 2016 – May 2017).

Impact and relationship of patient-related and intra-operative technical, non-technical and environmental factors on clinical outcomes. *St. Michael's Foundation. Grantcharov TP, Bener A.* (\$50,000.00 CAD Jul 2015 – Jun 2016).

Impact of 18F-FDG PET-CT Versus Conventional Staging in the Management of Patients Presenting With Clinical Stage III Breast Cancer. *Cancer Care Ontario. Dayes I, Eisen A, George R, Metser U.* (Mar 2016).

Informing and personalizing the decision for contralateral prophylactic mastectomy: The development of evidence-based decision support tools for patients and practitioners to reduce the overtreatment of early breast cancer. *Cancer Care Ontario and the Ontario Institute for Cancer Research. Scheer A, Eisen A, Holloway C, Cordeiro E.* (\$30,000.00 CAD Dec 2015 – Dec 2017).

Integrating genomic technologies in health care: evidence, values and health policy. *Canadian Institutes of Health Research (CIHR). Bombard Y, Bayoumi A, Caulfield T, Laupacis A, Lerner-Ellis J, Scheer A, Scherer S, Sullivan T.* (\$976,589.00 CAD Jul 2015– Jul 2020).

PROSPECT: Probiotics: Prevention of Severe Pneumonia and Endotracheal Colonization Trial. *The Physicians' Services Incorporated Foundation. Cook DJ, Johnstone J, Meade M, Marshall J, Lauzier F, Thebane L, Mehta S, Ball I, Golan E, Herridge M, Karachi T, Morris A, Garber G, Chau L, McIntyre L, Reeves B, Cirrone R, Carten-Ceba R, Arabi Y.* (\$250,000.00 CAD Apr 2016 – Mar 2019).

Reducing income related disparities in colorectal cancer screening. *St. Michael's Hospital Foundation. Kiran T, Lofters A, Baxter NN, Persaud N, Pinto A.* (\$49,673.00 CAD Jul 2015 – Jul 2016).

Reducing the bUrden of Breast cancer in Young women (RUBY). *CBCF/CIHR*. Narod S, Quan ML, Friedenreich C, Warner E, Metcalfe K, Baxter N, Amaout A, George R, Pool A, Dabbs K, Warburton R, McGadden A, Brackstone M, Hodgson N, Meiers P, Hebbard P, Down N, Cil T, McCready D, Provencher L, Meguerditchian A, Tait H, Helyer L, Boileau JF, Engel J, Beiberdorf D, Wright F, Robidoux A, Hanarrhan R, Caron N, Gomes T, Kapala M, Baliski C. (\$5,700,000.00 CAD Apr 2015 - ).

RIC Trauma Study. *St. Michael's Hospital*. Rotstein OD, Rizoli OB. (\$50,000.00 CAD Jul 2015 – Jun 2016).

The Canadian F.I.G.H.T. Breast Cancer Surgical Trial. *Canadian Institutes of Health Research (CIHR)*. DaCosta R, Leong WL, Easson A, Done S, McCready D, Groot G, Helyer L, Holloway C, Krahn M, Meiers P, Mew D, Rosen C, Simpson J, Tenenbein P, Deobold R, Nofech-Mozes S, Wright F, Scheer A, Look-Hong N. (\$100,000.00 CAD Sept 2015 – Sept 2016).

The effect of locus of care upon adolescent and young adult cancer outcomes: An IMPACT cohort study. *Alex's Lemonade Stand Foundation (USA)*. Gupta S, Nathan P, Baxter N. (\$99,988.60USD Jul 2015 – Jun 2017).

The impact of the model of long-term follow-up care on adherence to surveillance for late effects among survivors of adolescent and young adult cancers. *Canadian Cancer Society Research Institute*. Nathan P, Baxter N, Gupta S, Pole J, Sutradhar R, Denburg A. (\$192,790.00 CAD Feb 2016 – Feb 2018).

Trauma Resuscitation Using in-situ Simulation Team Training (TRUST) study: A novel approach to safety threat identification and high-performance team training. *Royal College of Physicians and Surgeons of Canada*. Ahmed N, Petrosoniak A, Hicks C, Campbell D, Rizoli S. (\$50,000.00 CAD Jul 2015 – Jul 2016).

Understanding and improving culturally competent communication in breast cancer treatment among ethnocultural minorities in Canada. *St. Michael's Foundation*. Scheer AS, Bombard Y, Parsons J, Baxter NN, Cross K, Sweet-Goldstein M. (\$50,000.00 CAD Jun 2016 – May 2017).

Using rotational thromboelastometry and simplified guidelines to reduce inappropriate transfusion of blood and blood products to trauma patients at St. Michael's Hospital. *St. Michael's Hospital*. Rezende-Neto J, Rizoli S. (\$29,200.00 CAD 2015 - 2016 ).

## Honours and Awards

**Ahmed, Najma:** Jameel Ali Award, St. Michael's Hospital. Excellence in Continuing Education recognizing exceptional contributions made to resident training locally and nationally. May 2016.

**Ahmed, Najma:** Royal College AMS/Donald Richards Wilson Award. Royal College of Physicians and Surgeons of Canada. Given for excellence in leadership in Post Graduate Education. January 2016.

**de Montbrun, Sandra:** Surgical Skills Centre Distinguished Educator Award. Dept of Surgery. July 2015.

**Grantcharov, Teodor:** Spinoza Chair in Surgery, University of Amsterdam (Universiteit van Amsterdam). In recognition of outstanding contributions to surgical safety. Amsterdam, Netherlands. June 2016.

**Grantcharov, Teodor:** Charles H. Tator Award, Department of Surgery, University of Toronto. July 2015.

**Rezende-Neto, Joao:** William J Horsey Award for Excellence in Postgraduate Education. Dept of Surgery, Faculty of Medicine, University of Toronto. June 2016.

**Rotstein, Ori:** ACE Award for Outstanding Achievement, Ontario Ministry of Health and Long Term Care. July 2015.

## Chairman with Undergrad Students



## Division of Neurosurgery

Dr. M.D. Cusimano	Professor
Dr. S. Das	Assistant Professor
Dr. H. Ginsberg	Assistant Professor
Dr. R. Macdonald	Professor
Dr. R.G. Perrin	Associate Professor
Dr. T.A. Schweizer	Assistant Professor
Dr. J. Spears	Assistant Professor (Interim Division Head)

### Publications

- Al Otabi N, Guha D, Ahuja C, Ibrahim G, Spears J, Muller P, Tucker W, Hudson A, Macdonald L.** History of Neurosurgery at University of Toronto: St. Michael's Story. *Journal of Neurosurgery*. 2016 Apr.
- Alshafai N, Falenchuk O, Cusimano MD.** International differences in the management of intracranial aneurysms: implications for the education of the next generation of neurosurgeons. *Acta Neurochir (Wien)*. 2015 Sept; 157(9): 1467-75.
- Alshafai N, Falenchuk O, Cusimano MD.** Practices and controversies in the management of asymptomatic aneurysms: Results of an international survey. *British Journal of Neurosurgery*. 2015;29(6):758-64.
- Badhiwala JH, Nassiri F, Alhazzani W, Selim MH, Farrokhhyar F, Spears J, Kulkarni AV, Singh S, Alqahtani A, Rochweg B, Alshahrani M, Murty NK, Alhazzani A, yarascavitch B, reddy K, Zaidat OO, Almenawer SA.** Endovascular Thrombectomy for Acute ischemic Stroke: A Meta-Analysis. *JAMA*. 2015 Nov; 3(314): 1832-43.
- Chiu AH, Marotta TR, Spears J.** Integrated live biplane fluoroscopic and cone-beam CT-guided external ventricular drain placement in the neurointerventional suite. *Journal of Neurointerventional Surgery*. 2016 Jun 22.
- Cusimano MD, Parker N.** Toppled television sets and head injuries in the pediatric population: a framework for prevention. *J Neurosurg Pediatr*. 2016 Jan;17(1):3-12.
- Cusimano MD, Pshonyak I, Lee MY, Ilie G.** Causes of 30-day readmission after neurosurgery of the spine. *J Neurosurg Spine*. 2015 Oct 9:1-10.
- de Oliveira Maneol AL, Jaja BN, Germans M.R., Yan, H., Qian, W., Kouzmina, E., Marotta TR, Turkel-Parrella D, Schweizer TA, Macdonald RL.** The VASOGRADE: A Simple Grading Scale for Prediction of Delayed Cerebral Ischemia After Subarachnoid Hemorrhage. *Stroke*. 2015 Jul; 46(7):1826-31.
- Dmytriw A, Martinez JL, Spears J, Marotta TR.** Cerebral aneurysm debuting as rupture during diagnostic CT angiography: an unexpected worst-case scenario. *The Neuroradiology Journal*. 2016 Jun;29(3):216-8.
- Effendi K, Spears J.** Interventional Neuroradiology: Applications in Skullbase Surgery. *Handbook of Skullbase Surgery*. 2016, Thieme.
- Etmnan N, Brown RD Jr, Beseoglu K, Juvela S, Raymond J, Morita A, Torner JC, Derdeyn CP, Raabe A, Mocco J, Korja M, Abdulazim A, Amin-Hanjani S, Al-Shahi Salman R, Barrow DL, Bederson J, Bonafe A, Dumont AS, Fiorella DJ, Gruber A, Hankey GJ, Hasan DM, Hoh BL, Jabbour P, Kasuya H, Kelly ME, Kirkpatrick PJ, Knuckey N, Koivisto T, Krings T, Lawton MT, Marotta TR, Mayer SA, Mee E, pereira VM, Molyneux A, Morgan MK, Mori K, Murayama Y, Nagahiro S, Nakayama N, Niemela M, Ogilvy CS, Peirot L, Rabinstein AA, Spears J.** The unruptured intracranial aneurysm treatment score: a multidisciplinary consensus. *Neurology*. 2015 Sep 8;85(10):881-9.
- Fu TS, Jing R, McFaul SR, Cusimano MD.** Recent trends in hospitalization and in-hospital mortality associated with traumatic brain injury in Canada: A nationwide, population-based study. *J Trauma Acute Care Surg*. 2015 Sept; 79(3): 449-54.
- Gallo M, Coutinho F, Vanner RJ, Gayden T, Mack S, Murison A, Remke M, Li R, Takayama N, Desai D, Lee L, Lan X, Park NI, Barsyte-Lovejoy D, Smil D, Sturm D, Kushida M, Head R, Cusimano MD, Bernstein M, Clarke ID, Dick JE, Pfister SM, Rich JN, Arrowsmith CH, Taylor MD, Jabado N, Bazett-Jones D, Lupien M, Dirks P.** MLL5 Orchestrates a Cancer Self-Renewal State by Repressing the Histone Variant H#3 and Globally Reorganizing Chromatin. *Cancer Cell*. 2015 Dec 14;28(6):715-29.
- Golestanirad L, Elahi B, Graham SJ, Das S, Wald LL.** Pedunculopontine nuclei deep brain stimulation in treatment of gait disorders: A meta-analysis. *Can J Neurosci*. 2016 Jan;43(1):120-6.
- Hird MA, Vesely KA, Christie LE, Alves MA, Pongmoragot J, Saposnik G, Schweizer TA.** Is it safe to drive after acute mild stroke? A preliminary report. *Journal of the Neurological Sciences*. 2015 Jul; 354(1-2): 46-50.
- Ilie G, Mann RE, Ialomiteanu A, Adlaf EM, Hamilton H, Wickens CM, Asbridge M, Rehm J, Cusimano MD.** Traumatic brain injury, driver aggression and motor vehicle collisions in Canadian adults. *Accid Anal Prev*. 2015 Aug; 81:1-7.
- Ilie G, Vingilis ER, Mann RE, Hamilton H, Toplak M, Adlaf EM, Kolla N, Ialomiteanu A, van der Mass M, Asbridge M, Vingilis-Jaremko L, Rehm J, Cusimano MD.** The association between traumatic brain injury and ADHD in a Canadian adult sample. *J Psychiatr Res*. 2015 Oct; 69:174-9.
- Jaja BN, Schweizer T, Macdonald RL.** 162 Center-Effect in Patient Outcome After Enrollment Into Randomized Clinical Trials in Aneurysmal Subarachnoid Hemorrhage. *Neurosurgery*. 2015 Aug; 62(1): 219.



- Konig I, Zarrine-Afsar A, Aznauryan M, Soranno A, Wunderlich B, Dingfelder F, Stuber JC, Pluckthun A, Nettels D, Schuler B.** Single-molecule spectroscopy of protein conformational dynamics in live eukaryotic cells. *Nature Methods*. 2015; 12(8):773-9.
- Maher M, Churchill NW, de Oliveira Manoel AL, Graham SJ, Macdonald RL, Schweizer TA.** Altered Resting-State Connectivity within Executive Networks after Aneurysmal Subarachnoid Hemorrhage. *PLoS One*. 2015 Jul; 10(7):e0130483.
- Mansouri A, Iarjani S, Klironomos G, Laperriere N, Cusimano MD, Gentili F, Schwartz M, Zadeh G.** Predictors of response to Gamma Knife radiosurgery for intracranial meningiomas. *Journal of Neurosurgery*. 2015 Nov; 123(5):1294-300.
- Mohammed AA, Rotondo F, Munoz DG, Kovacs K, Bilbao JM, Karamchandani JR, Di Ieva A, Cusimano MD.** Diagnostic and prognostic biomarkers of a sellar melanocytic tumor mimicking pituitary adenoma: Case report and literature review. *Pathol Res Pract*. 2015 Sept; 211(9): 682-7.
- Morrison MA, Tam F, Garavaglia MM, Golestanirad L, Hare GM, Cusimano MD, Schweizer TA, Das S, Graham SJ.** A novel tablet computer platform for advanced language mapping during awake craniotomy procedures. *J Neurosurg*. 2016 Apr; 124(4):938-44.
- Sarras H, Wu M, Celebre A, Merico D, Karamchandani J, Das S.** A novel amplification-based approach to enable gene expression profiling from small clinical tumor specimen. *J Neurooncol*. 2016 Jan; 126(1):69-75.
- Sav A, Rotondo F, Syro LV, Di Ieva A, Cusimano MD, Kovacs K.** Biomarkers of Pituitary Carcinomas. *Expert Review of Endocrinology & Metabolism*. 2016 May; 11(3): 253-261.
- Smith TR, Hulou MM, Yan SC, Cote D, Nahed BV, Babu MA, Das S, Gormley WB, Rutka JT, Laws Jr, ER and Heary, RF.** Defensive Medicine Neurosurgery: The Canadian Experience. *J Neurosurg*. 2016 May; 124(5):1524-30.
- Striemer C, Cantelmi D, Cusimano MD, Danckert JA, Schweizer TA.** Deficits In Reflexive Covert Attention Following Cerebellar Injury. *Frontiers In Human Neuroscience*. 2015 Aug; 9:428.
- Tata A, Gribble A, Ventura M, Ganguly M, Bluemke E, Ginsberg H, Jaffray D, Ifa D, Vitkin A, Zarrine-Afsar.** Wide-Field Tissue Polarimetry Allows Efficient Localized Mass Spectrometry Profiling of Biological Tissues. *Chemical Science*. 2016; 7:2162-2169.
- Topolovec-Vranic, Zhang S, Wong H, Lam E, Jing R, Russell K, Cusimano MD, Canadian Brain Injury and Violence Research Team.** Recognizing the Symptoms of Mental Illness following Concussions in the Sports Community: A Need for Improvement. *PLoS One*. 2015; 10(11): e0141699.
- Zou J, Talbot F, Tata A, Ermini L, Franjic K, Ventura M, Zheng J, Ginsberg H, Post M, Ifa DR, Jaffray D, Miller RJD, Zarrine-Afsar A.** Ambient Mass Spectrometry Imaging with Picosecond infrared Laser Ablation ElectroSpray Ionization (PIR-LAESI). *Anal Chem*. 2015 Dec 15; 87(24):12071-9.

## Invited Visits

- Das, Sunit.** Congress of Neurological Surgeons Annual Meeting, New Orleans, Louisiana, September 28-29, 2015. Presenter: 1) Epigenetic regulation of angiogenesis in glioblastoma by a novel long non-coding RNA. 2) Development of a novel tablet technology to improve speech mapping for tumor surgery.
- Das, Sunit.** AACR Special Seminar, Boston, Massachusetts, December 5, 2015. Invited Speaker: LincRNA-dependent angiogenesis in glioblastoma. Non-coding RNA in Cancer.
- Das, Sunit.** Clinician-Scientist Seminar Series, University of Massachusetts Medical School, Worcester, Massachusetts, February 11, 2016. Visiting Professor: Regulation of cell identity in glioblastoma by a novel lncRNA.
- Das, Sunit.** Neuro-Oncology Seminar, Montreal Neurological Institute, Montreal, Quebec, April 6, 2016. Invited Speaker: 1) Targeted therapy for patients with glioblastoma. 2) The evolution of cancer care in the US and Ontario: a comparative history of the National Cancer Institute and Cancer Care Ontario.
- Das, Sunit.** Department of Neurosurgery, C. Besta, Milan, Italy, April 21, 2016. Visiting Professor: Development of a programmatic approach to treatment of patients with low-grade glioma.
- Das, Sunit.** Global National News, Canada, May 24, 2016. Invited Speaker: Gord Downie cancer diagnosis.
- Das, Sunit.** MISAM 2016, Centre Mont-Royal, Montreal, Quebec, June 15, 2016. Invited Speaker: Treating disseminated cancer by targeting the epigenome.
- Das, Sunit.** Department of Neurosurgery, Aurora Health Sciences, Milwaukee, Wisconsin, June 27, 2016. Visiting Professor: Advanced optics in neurosurgery.
- Schweizer, Tom A.** 6th Canadian Stroke Congress, Toronto, Ontario, September 19, 2015. Invited Speaker: Stroke After TIA or Minor Stroke: Is it Safe?
- Schweizer, Tom A.** Alzheimer Society of Ontario - "Make a Will Month" Event, Toronto, Ontario, November 4, 2015. Invited Speaker: The Brain Behind the Wheel: Preliminary Findings.
- Schweizer, Tom A.** Ministry of Transportation Ontario - Road Safety Research Office, Toronto, Ontario, November 26, 2015. Invited Speaker: Driving and the Ageing Brain.
- Schweizer, Tom A.** International Council of Motorsport Sciences Annual Congress, Indianapolis, Indiana, December 10, 2015. Invited Speaker: Brain Activity During Driving with Distractions - An Immersive fMRI Study.
- Spears, Julian.** Division of Neurosurgery The Ottawa Hospital and the University of Ottawa, Ottawa, Ontario, November 5, 2015. Visiting Professor: Management of Unruptured Intracranial Aneurysms: To Treat or Not to Treat.

**Spears, Julian.** 4th Annual Ottawa Neurosurgery Review Course 2016, Ottawa, Ontario, February 16, 2016. Speaker: The Vascular malformations of the brain II: AVM's and DAVF's of the brain.

**Zarrine-Afsar, Arash.** America Society for Mass Spectrometry, San Antonio, 2016. Invited Speaker: Guided DESI-MS imaging allows accelerated mapping of heterogeneity in breast cancer.

**Zarrine-Afsar, Arash.** AACR/Molecular Imaging and Characterization of Cancer Workshop, New Orleans, 2016. Invited Speaker: Advantages of Mass Spectrometry imaging for Cancer Therapy.

**Zarrine-Afsar, Arash.** Saskatchewan Mass Spectrometry Users' Group (SMSUG), Saskatoon, 2016. Invited Speaker: Accelerated Mapping of heterogeneity in Breast Cancer employing innovative.

## Research and Investigations

A framework for SAH management: Integrating clinical imaging thresholds for intervention in aneurysmal SAH (Retrospective data analysis). *CHAR-GE & MI dept. Spears J.* (\$20,000.00 CAD Jan 2015 - ).

A Pilot study of sub-anesthetic ketamine infusion for neuroprotection after aneurysmal subarachnoid hemorrhage: Effects on white matter integrity, inflammatory biomarkers, and neurocognitive outcome. *Canadian Anesthesiologists Society and Physician Services Incorporated. Baker A, Spears J, Macdonald L, Schweizer T, Bell J.* (\$28,000.00 CAD Feb 2016 - ).

Canadian Traumatic Brain Injury Research Consortium. *Canadian Institute of Health Research. Cusimano MD, Hutchison J, Turgeon A.* (\$1,824,513.00 CAD Dec 2015 - Nov 2019).

Carotid Revascularization and medical Management for Asymptomatic carotid Stenosis Trial. *NIH. Spears J.* (\$39,000,000.00 CAD Oct 2015 - ).

Defining the role of vascular mimicry in bevacizumab resistance in glioblastoma. *J.P.Bickell Foundation. Das S.* (\$67,000.00 CAD Jul 2015 - Jun 2016).

LARGE Aneurysm Randomized Trial: Flow Diversion versus Traditional Endovascular Coiling Therapy. *Medical University of South Carolina. Spears J.* (\$1,000,000.00 CAD Jul 2015 - ).

lncRNA Regulation of CSCs in Glioblastoma. *b.r.a.i.n.child. Das S.* (\$25,000.00 CAD Oct 2015 - Jul 2016).

Targeting bevacizumab resistance via LIVE-mediated vascular mimicry in glioblastoma. *Canadian Institutes of Health Research (CIHR). Das S.* (\$545,268.00 CAD Jul 2015 - Jun 2019).

Vascular mimicry in human brain tumours: The role of the non-coding transcriptome. *St. Michael's Hospital Foundation. Das S.* (\$50,000.00 CAD Jun 2015 - May 2016).

Vascular-perfusion imaging for prediction and early recognition of DCI and relationship to clinical outcome. *GE-CHAR grant and Matching contribution from University of Toronto. Spears J, Marotta T.* (\$20,000.00 CAD Jul 2015 - ).

## Division of Orthopaedics

<b>Dr. H. Ahn</b>	Assistant Professor
<b>Dr. E.R. Bogoch</b>	Professor
<b>Dr. T. Daniels</b>	Professor (Division Head)
<b>Dr. J. Hall</b>	Assistant Professor
<b>Dr. M. McKee</b>	Professor
<b>Dr. A. Nauth</b>	Assistant Professor
<b>Dr. E. Schemitsch</b>	Professor
<b>Dr. J.P. Waddell</b>	Professor
<b>Dr. S. Ward</b>	Lecturer
<b>Dr. D. Whelan</b>	Associate Professor

## Publications

**Abdallah FW, Whelan DB, Chan VW, Prasad GA, Endersby RV, Theodoropolous J, Oldfield S, Oh J, Brull R.** Adductor Canal Block Provides Noninferior Analgesia and Superior Quadriceps Strength Compared with Femoral Nerve Block in Anterior Cruciate Ligament Reconstruction. *Anesthesiology.* 2016 May; 124(5): 1053-64.

**Altman RD, Schemitsch E, Bedi A.** Assessment of clinical practice guideline methodology for the treatment of knee osteoarthritis with intra-articular hyaluronic acid. *Semin Arthritis Rheum.* 2015 Oct; 45(2): 132-9.

**Baker JE, Pavenski K, Pirani RA, White A, Kataoka M, Waddell JP, Ho A, Schemitsch EH, Lo N, Bogoch ER, Pronovost A, Luke K, Howell A, Nassiss A, Tsui AK, Tanzini RM, Pulendrarajah R, Mazer CD, Freedman J, Hare GM.** Universal tranexamic acid therapy to minimize transfusion for major joint arthroplasty: a retrospective analysis of protocol implementation. *Can J Anaesth.* 2015 Nov; 62(11): 1179-1187.

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- Bogdan Y, Tornetta P 3rd, Jones C, Gilde AK, Schemitsch E, Vicente M, Horwitz D, Sanders D, Firoozabadi R, Leighton R, de Dios Robinson J, Marcantonio A, Hamilton B.** Neurologic injury in operatively treated acetabular fractures. *J Orthop Trauma.* 2015 Oct;29(10):475-8.
- Bohm ER, Molodianovitch K, Dragan A, Zhu N, Webster G, Masri B, Schemitsch E, Dunbar M.** Outcomes of unilateral and bilateral total knee arthroplasty in 238,373 patients. *Acta Orthop.* 2016 May 11:1-7.
- Bottlang M, Schemitsch CE, Nauth A, Roult M Jr, Egol KA, Cook GE, Schemitsch EH.** Biomechanical Concepts for Fracture Fixation. *J Orthop Trauma.* 2015 Dec;29(12):S28-33.
- Burgers PT, Hoogendoorn M, Van Woensel EA, Poolman RW, Bhandari M, Patka P, Van Lieshout EM, Schemitsch E, HEALTH Trial Investigators.** Total medical costs of treating femoral neck fracture patients with hemi- or total hip arthroplasty: a cost analysis of a multicenter prospective study. *Osteoporos Int.* 2016 Jun;27(6):1999-2008.
- Cook GE, Bates BD, Tornetta P, McKee MD, Morshed S, Slobogean GP, Schemitsch EH.** Assessment of Fracture Repair. *J Orthop Trauma.* 2015 Dec;29(12):S57-61.
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- Daniels TR, Baumhauer JF, Austin K, Blundell C, Dishan S, DeVries G, Glazebrook M, Idle I, Nielsen D, Pedersen E, Sakellariou A, Solan M, Younger ASE.** Prospective, randomized, multicentered clinical trial assessing safety and efficacy of a synthetic cartilage implant vs. 1st MTP arthrodesis in advanced hallux rigidus. *Foot & Ankle International.* 2016 May;37(5):457-69.
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- Daniels TR.** 16 of the top foot and ankle surgeons in North America: Top Stories. *Orthopedics This Week.* 2015 Sept; 11(31).
- Dehghan N, McKee MD.** Open Reduction and Internal Fixation of Fracture-Dislocations of the Elbow with Complex Instability. 2nd Edition, Vol. 3, Chapter 51, pp1-11, 2015. *Hand, Shoulder and Elbow. Operative Techniques in Orthopaedic Surgery.* Lippincott Williams and Wilkins. Matt Ramsey, Brent Wiesel Gerry Williams (eds).
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- Furey M, McKee M.** Distal Humerus Fractures - Open Reduction and Internal Fixation. *Elbow Trauma: A Master Skills Publication.* American Society of Surgery of the Hand. Lee DM, Steinmann SP (eds). 2015; pp. 175-185.
- Furey MJ, McKee MD.** Osteoporotic distal humeral fractures. *Current Orthopaedic Practice.* 2015 Nov;26(6):584-590.
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- Hall J, Canadian Orthopaedic Trauma Society.** Multicenter Randomized Clinical Trial of Nonoperative Versus Operative Treatment of Acute Acromio-Clavicular Joint Dislocation. *J Orthop Trauma.* 2015 Nov;29(11):479-87.
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**Whelan D, Leiter J, Sasyniuk T, Litchfield R, Randle J, Hughes S, MacDonald P.** Double-row repair of the distal attachment of the superficial medial collateral ligament: a basic science pilot study. *Knee Surg Sports Traumatol Arthrosc*. 2015 Oct; 23(10): 2820-4.

**Whelan DB, Kletke SN, Schemitsch G, Chahal J.** Immobilization in External Rotation Versus Internal Rotation After Primary Anterior Shoulder Dislocation: A Meta-analysis of Randomized Controlled Trials. *Am J Sports Med*. 2016 Feb; 44(2): 521-32.

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**Zielinski SM, Heetveld MJ, Bhandari M, Patka P, Van Lieshout EM, Hall J, McKee M, Schemitsch E, FAITH Trial Investigators.** Implant Removal After Internal Fixation of a Femoral Neck Fracture: Effects on Physical Functioning. *J Orthop Trauma*. 2015 Sept; 29(9): e285-92.

## Invited Visits

**Ahn, Henry.** Taizhou Hospital, Zhejiang, Taizhou, China, May 30, 2016. Invited Speaker: How Far Do You Fuse? Proximal and Distal Fixation for Degenerative Scoliosis.

**Ahn, Henry.** Jiaotong University of Shanghai, Shanghai, China, October 30, 2015. Visiting Professor: 1) Current Status of the Application of Computerized Navigation in Minimally Invasive Spine Surgery. 2) Management of Complications in Minimally Invasive Spine Surgery.

**Ahn, Henry.** Chengdu University, Chengdu, China, September 25, 2015. Invited Speaker: Management of C2 Fractures and Instrumentation Techniques.

**Daniels, Timothy.** AOFAS Annual Meeting 2015, Long Beach, California, July 15-18, 2015. Invited Speaker: 1) Understanding "satisfactory" outcomes following ankle arthroplasty and arthrodesis. 2) Comparison of health-related quality of life between patients with unilateral and bilateral end-stage ankle arthrosis. 3) Ankle Replacement: Update on outcomes - Where are we at and where are we headed?

**Daniels, Timothy.** 2nd Foot and Ankle Symposium, Hamad Medical Corporation, Doha, Qatar, December 12, 2015. Distinguished Speaker: 1) Orthobiologics in orthopaedic surgery: "Canadian Experience". 2) Correction of varus ankle deformity. 3) Total ankle replacement outcome.

**Daniels, Timothy.** Annual Parekh Indo-US Foot and Ankle Course, Ahmedabad, India, January 8, 2016. Invited Speaker: 1) Regional anaesthesia in foot and ankle w video. 2) Tibiotalocalcaneal fusions - techniques and tips w video. 3) Analyzing & treating the diabetic foot. 4) Case based for stages 1-4 PTTD. 5) Chronic anterolateral ankle pain.

**Daniels, Timothy.** Grand Rounds, MGH-Harvard Medical School, Boston, Massachusetts, January 28, 2016. Visiting Professor: 1) Deformity correction of the severe varus ankle. 2) Total ankle replacement vs fusion.

**Daniels, Timothy.** AAOS - AOFAS Specialty Day 2016 Symposia Topic "I usually do it that way, but this time it didn't work", AOFAS, Orlando, Florida, March 5, 2016. Invited Speaker: Tibiotalocalcaneal fusion - Techniques and Tips with a Video.

**Daniels, Timothy.** Clinica Alemana of Santiago and Cautad de Medicina, Santiago, Chile, April 1, 2016. Distinguished Speaker: First Course of deformities in leg, ankle and foot in adults and children Midfoot Deformities: 1) Charcot disease; 2) Foot and ankle approaches: how to avoid complications. 3) Hallux valgus. 4) Osteoarthritis in varus. 5) Osteoarthritis in valgus. 6) Cavus foot. 7) Flat foot.

**Daniels, Timothy.** AOFAS Advanced Foot and Ankle Course: A Case Based Approach to the Most Challenging Problems We Face, AOFAS, Cleveland, Ohio, April 28-30, 2016. Presenter: 1) Ankle Arthritis - Replacement. 2) Medial Column Deformity. 3) Stage 2 hindfoot flat foot: What is enough correction? 4) Biologics and Infection. 5) Hallux valgus: When is a turnip not just a turnip?

**Daniels, Timothy.** Stryker 3rd Annual International Foot & Ankle Symposium, Foot & Ankle Education, New York City, New York, May 13-14, 2016. Invited Speaker: 1) Total ankle replacement & complications. 2) Forefoot. 3) To fuse or not to fuse - total ankle replacement.

**McKee, Michael.** American Society Surgery of the Hand Annual Meeting, Seattle, Washington, September 10, 2015. Invited Speaker: Current Concepts in Elbow Pathology.

**McKee, Michael.** Orthopaedic Trauma Association Annual Meeting, San Diego, California, October 9-10, 2015. Invited Speaker: 1) Proximal Humerus Fractures: Optimizing surgical management and technique. 2) Elbow Trauma: How to improve outcomes in 2015. 3) The treatment of periprosthetic fractures in 2015: Can we reach a consensus? 4) Rib fracture fixation the surgical management fixation, and determining what needs to be fixed. 5) Upper Extremity Poster Tour.

**McKee, Michael.** Singapore Orthopaedic Association, Singapore, October 14-17, 2015. Invited Speaker: 1) Evidence Based Medicine: Can you believe everything you read? 2) The Canadian Orthopaedic Trauma Society: Transforming Trauma Care. 3) Improving Outcomes in Polytrauma - How do we avoid "Trauma Burnout". 4) Total Elbow Replacement Cadaveric Workshop.

**McKee, Michael.** International Congress for Joint Reconstruction, 4th Annual Shoulder, Las Vegas, Nevada, November 6-7, 2015. Invited Speaker: 1) Revision of failed hemis for fracture. 2) Tips and tricks for salvaging malunited and nonunited fractures. 3) Perioperative management of the shoulder patient.

**McKee, Michael.** AO Trauma North America, Marco Island, Florida, November 12-14, 2015. Invited Speaker: 1) Traumatic elbow instability. 2) Distal humerus columnar fractures. 3) Shoulder girdle fractures. 4) Humerus Shaft.

**McKee, Michael.** Trauma Quality Improvement Program – American College of Surgeons, Nashville, Tennessee, November 16, 2016. Invited Speaker: Operative Fixation of Rib Fractures

**McKee, Michael.** Canadian Orthopaedic Resident Review Course–Trauma, Mississauga, Ontario, November 19, 2016. Invited Speaker: 1) Clavicle/AC Joint/Scapula injuries. 2) Elbow Fracture Dislocations. 3) Scaphoid Fractures.

**McKee, Michael.** Department of Surgery Grand Rounds, Dalhousie University, Halifax, Nova Scotia, December 9, 2015. Invited Speaker: Rib fracture fixation in 2015.

**McKee, Michael.** Canadian Shoulder and Elbow Society, Ottawa, Ontario, January 28, 2016. Invited Speaker: Proximal humeral fractures case discussion.

**McKee, Michael.** Current Solutions in Shoulder & Elbow Surgery, Tampa, Florida, February 5, 2016. Invited Lecturer: 1) Distal humerus fractures: fixation and replacement, patient selection and outcomes. 2) The Evolution and Current Status of Elbow Arthroplasty. 3) Innovative plating strategies.

**McKee, Michael.** OTA Specialty Day, AAOS 2016 Annual Meeting, Orlando, Florida, March 1-5, 2016. Invited Speaker: 1) Shoulder. 2) 10 Papers you should know. 3) Common upper extremity injuries: Surgery provides better results. 4) The treatment of periprosthetic fractures in 2016: Can we reach a consensus? 5) Fractures and dislocations about the elbow and their adverse sequelae: Contemporary perspectives. 6) Game changers in elbow surgery: New paradigms that transformed my practice.

**McKee, Michael.** Michigan Orthopaedic Society, Plymouth, Michigan, April 5, 2016. Invited Speaker: 1) Clavicle Fractures: How Science Changed Practice. 2) Fractures of the Distal Humerus: How to Maximize Success.

**McKee, Michael.** Mid-America Orthopaedic Association Annual Meeting, Bonita Springs, Florida, April 14-15, 2016. Invited Speaker: 1) Fracture of the Clavicle: How science changed practice. 2) Fracture-Dislocations of the Elbow: How to tame the terrible triad.

**McKee, Michael.** Halifax Trauma Course, Dalhousie University, Halifax, Nova Scotia, April 23, 2016. Invited Speaker: 1) How to survive the night. What is important, coordination, referral. 2) Proximal Humeral Fracture: Indications, table set-up, approach (deltopectoral vs anterolateral), ORIF reduction, plate position—What plate? and why ORIF. 3) Table set-up, approach post (triceps split, olecranon osteotomy, triceps sparing), reduction tech, plate positioning.

**McKee, Michael.** Orthopaedic Trauma Course, San Francisco, California, April 30, 2016. Invited Speaker: 1) Practical Tips and Tricks: Osteoporotic fixation complex fractures in the Elderly: Fix or Replace? Elbow. 2) Salvaging failed fracture fixation: elbow. 3) Salvage of failed fractures. 4) Complex elbow injuries: Case Reviews Workshop–Upper Extremity.

**McKee, Michael.** The CORE Institute, Phoenix, Arizona, June 10, 2016. Invited Speaker: Fractures of the clavicle: How science changed practice.

**McKee, Michael.** COA, Quebec, Quebec City, June 18-19, 2016. Invited Speaker: 1) Proximal humerus fractures Arthroplasty in Trauma: When and what should we be replacing? 2) Total elbow arthroplasty Symposium: Elbow trauma: Distal humeral fractures. 3) Intermediate outcomes following initial treatment of Proximal humerus fractures in Ontario, Canada: A population-based, retrospective cohort. 4) Instability of the forearm axis Hand Symposium: Disorders of forearm rotation.

**Nauth, Aaron.** 2015 Annual Meeting of the Orthopaedic Trauma Association, San Diego, California, October 2015. Invited Lecturer: 1) Fixation Strategies for Periprosthetic Fractures of the Proximal Femur with a Stable Implant. 2) Terrible Triad Injuries: How to Improve Outcomes. 3) Proximal Humerus Fractures ORIF versus Arthroplasty: Evidence Based Medicine. 4) Infected Bone Defects: State of the Art in 2015. 5) Locked Plating of Proximal Humerus Fractures: How to Improve Outcomes.

**Schemitsch, Emil.** Basic Science Focus Forum, San Diego, California, October 2015. Invited Lecturer: 1) When is a Critical Size Bone Defect Critical? 2) Nailing versus Plating of Supracondylar Distal Femur Fractures. 3) Biomechanical Rationale for Fixation of Periprosthetic Proximal Humerus Femur Fractures. 4) Proximal Humerus Fractures: When is Surgery Indicated? 5) Arthroplasty Options for Femoral Neck Fractures. 6) Rib Fracture Fixation: The Need for an RCT. 7) Evidence-based Approach to Distal Humerus Fractures.

**Schemitsch, Emil.** Osteosynthesis and Trauma Care Foundation, Zürich, Switzerland, November 2015. Invited Lecturer: Unusual Indications for Intramedullary Nailing.

**Schemitsch, Emil.** Orthopaedic Research Society (ORS), Tampa, Florida, March 2016. Invited Lecturer: Organizing Multicenter Trials.

**Schemitsch, Emil.** American Academy of Orthopaedic Surgeons (AAOS), Orlando, Florida, March 2016. Invited Lecturer: 1) Periprosthetic fractures: How to use biomechanical evidence to improve outcomes. 2) ORIF vs. Acute Arthroplasty for Common Fractures: What Is The Evidence? 3) Common Upper Extremity Injuries: Type III AC Joint Injuries (Management Debate): Non-Operative Management Is Preferable.

**Schemitsch, Emil.** International Orthopaedic Trauma Course, San Francisco, California, April 2016. Invited Lecturer: 1) Tips and Tricks: Intertrochanteric Fractures. 2) Complex Elbow Injuries Case Reviews: Conventional Open or Minimally Invasive Approach? 3) Lab Leader: Augmentation of Depressed Periarticular Fractures. 4) Workshop: Proximal Femur Periprosthetic Fractures.

**Schemitsch, Emil.** Canadian Orthopaedic Association, Quebec City, Quebec, June 18-19, 2016. Invited Lecturer: 1) Arthroplasty in Trauma: When and What Should we be Replacing? a) Femoral Neck Fractures; b) Proximal Humerus Fractures. 2) Trauma Symposium: Practice Changing RCT's Low Intensity Pulsed Ultrasound in Acute Tibial Shaft Fractures Treated with IM Nails: The Results of the TRUST Trial. 3)

**Waddell, James P.** Orthopaedic Surgery & Trauma Experts Conclave (OSTEC) SICOT India Foundation Lecture Tour “Challenges in Upper & Lower Extremity Trauma”, Kolkata, India, July 14, 2015. Invited Speaker: Treatment of Femoral Neck Fractures.

**Waddell, James P.** Orthopaedic Surgery & Trauma Experts Conclave (OSTEC) SICOT India Foundation Lecture Tour “Challenges in Upper & Lower Extremity Trauma”, Hyderabad, India, July 15, 2015. Invited Speaker: Treatment of Femoral Neck Fractures.

**Waddell, James P.** Orthopaedic Surgery & Trauma Experts Conclave (OSTEC) SICOT India Foundation Lecture Tour “Challenges in Upper & Lower Extremity Trauma”, Chennai, India, July 17, 2015. Invited Speaker: Treatment of Femoral Neck Fractures.



- Waddell, James P.** Orthopaedic Surgery & Trauma Experts Conclave (OSTEC) SICOT India Foundation Lecture Tour “Challenges in Upper & Lower Extremity Trauma”, Mumbai, India, July 18, 2015. Invited Speaker: Treatment of Femoral Neck Fractures.
- Waddell, James P.** Orthopaedic Surgery & Trauma Experts Conclave (OSTEC) SICOT India Foundation Lecture Tour “Challenges in Upper & Lower Extremity Trauma”, Delhi, India, July 19, 2015. Invited Speaker: Treatment of Femoral Neck Fractures.
- Waddell, James P.** SICOT, Toronto, Ontario, August 14, 2015. Webinar Presenter: Non-Operative Management of Fractures.
- Waddell, James P.** Bone and Joint Canada – Hip and Knee Appropriateness Meeting, Toronto, Ontario, September 11, 2015. Invited Speaker: Changes in the Technology of Implants: Past and Future Considerations.
- Waddell, James P.** Societe Internationale de Chirurgie Orthopedique et de Traumatologie (SICOT), Guangzhou, China, September 18, 2015. Invited Speaker: Principles of Revision Arthroplasty.
- Waddell, James P.** London Knee Meeting, City of London, United Kingdom, October 7, 2015. Invited Speaker: The role of the femoral plug.
- Waddell, James P.** 8th International Symposium – Total Knee Arthroplasty, Krakow, Poland, October 10, 2015. Presenter: 1) The role of tranexamic acid in decreasing the need for blood transfusion in primary total knee arthroplasty. 2) Indications & outcomes in total knee replacement.
- Waddell, James P.** Ontario Orthopaedic Association, Toronto, Ontario, October 30, 2015. Invited Speaker: Quality based procedures: How can we make a difference.
- Waddell, James P.** International Combined Meeting British Hip Society & Societa Italiana Dell-Anca, Milan, Italy, November 27, 2015. 1) Invited Chair: Revision of the Acetabular Side. 2) Invited Speaker: THA vs Hemiarthroplasty.
- Whelan, Daniel.** AAOS, Orlando, Florida, March 2016. Lecturer: Fracture Dislocations: Is the Management Different.
- Whelan, Daniel.** FAI Hip Arthroscopy Course, Hamilton, Ontario, May 2016. Invited Lecturer.
- Whelan, Daniel.** Brazilian Surgeon Knee Conference, Largo, Florida, June 2016. Invited Lecturer.
- Whelan, Daniel.** COA, Quebec City, Quebec, June 2016. Lecturer: Options for Femoral Tunnel Creation in Anatomic ACL Reconstruction-How I Do it and Why –Medial Portal Drilling.

## Research and Investigations

- A randomized controlled trial of operative vs non-operative treatment of flail chest injuries. *Canadian Institutes of Health Research (CIHR)*. McKee MD, Schemitsch EH, Dehghan N, Nauth A. (\$688,000.00 CAD Sept 2015 – Sept 2018).
- Arthroscopic repair vs. latissimus dorsi tendon transfer for massive rotator cuff tears: An expertise based randomized controlled trial. *ConMed Research*. McKee M, Henry P. (\$20,000.00 CAD Dec 2015 – Dec 2016).
- Expanding Areas of Care: Optimizing Musculoskeletal Injury Clinics to Assist Intimate Partner Violence Victims. *Hamilton Academic Health Sciences Organization (HAHSO)*. Schemitsch E, Bhandari M. (\$192,194.00 CAD Apr 2016 – Apr 2018).
- Expanding Areas of Care: Optimizing Musculoskeletal Injury Clinics to Assist Intimate Partner Violence Victims. *Canadian Institutes of Health Research (CIHR)*. Schemitsch E, Sprague S, Bhandari M. (\$200,000.00 CAD Jun 2016 – May 2018).
- HIP fracture Accelerated surgical Treatment And Care track (HIP ATTACK): Randomized controlled trial of accelerated medical clearance and surgery versus standard care for hip fracture. *Ontario SPOR SUPPORT Unit (OSSU)*. Schemitsch E, Devereaux PJ. (\$1,849,614.00 CAD Jul 2015 – Jul 2018).
- “Make this break your last”: pilot testing an educational intervention to improve fragility fracture patients’ awareness of their risk of refracture. *Canadian Institutes of Health Research (CIHR)*. Beaton DE, Jain R, Bogoch E, Da Costa D, Fortin P, Gignac M, Jaglal S, Josse R, Kennedy C, Mamdani M, Rotondi N, Sale J, Sujic R, Thorpe K. (\$100,000.00 CAD Jul 2015 – Jun 2016).
- MOHLTC Evaluation of an Osteoporosis Screening Program for Fragility Fracture Patients – Year 10. *Ontario Ministry of Health and Long-Term Care*. Beaton DE, Bogoch ER, Jain R, Jaglal S, Hawker G, Mamdani M, Gignac M, Cadarette S, Laupacios A, Zwarenstein M, Straus S, Sale J. (\$350,000.00 CAD Apr 2016 – Mar 2017).
- Operative versus non-operative treatment of acute unstable chest wall injuries: A multi-centred randomized controlled trial. *Canadian Institutes of Health Research (CIHR)*. Schemitsch EH, Dehghan N, McKee MD, Nauth A, Baker AJ, Brochard LJ, Friedrich J, Hameed SM, Hoch JS, Isaranuwachai W, Jenkinson R, Mamdani M, Marshal JC, Nathens AB, Pollard BA, Rizoli SB, Slobogean G, Thorpe KE, Whelan DB. (\$682,546.00 CAD Jul 2015 – Jul 2020).
- Predicting and preventing the major vascular complications of surgery. *Canadian Institutes of Health Research (CIHR)*. Schemitsch E, Devereaux PJ. (\$8,439,205.00 CAD Jul 2015 – Jul 2022).
- Prospective abuse and intimate partner violence surgical evaluation (PRAISE-2): An Ontario-based multi-centre prospective cohort study. *Physician Services Incorporated (PSI) Foundation*. Petrisor B, Sprague S, Bhandari M, Freeman C, Tikasz D, Schemitsch EH, Thabane L. (\$156,500.00 CAD Jul 2015 – Jul 2017).
- Synthesis of Bioactive Augments for use in Revision Knee Joint Replacements. *Canadian Institutes of Health Research (CIHR) (NSERC partnered)*. Schemitsch E, Towler M. (\$501,703.00 CAD Jun 2016 – May 2019).
- Synthesis of international guidelines on fracture risk. *Canadian Institutes of Health Research (CIHR)*. Sale J, Beaton D, Beaulieu M-C, Bogoch E, Boire G, Funnell L, Jain R. (\$10,000.00 CAD Jun 2016 – May 2017).
- The biomechanics of fixation via the modified stoppa approach vs. the posterior approach for management of acetabular fractures with ORIF and acute THA in the elderly. *Orthopaedic Trauma Association (The) (OTA)*. Schemitsch E, Moktar J, Walmsley D, Aziz MSR, Zdero R. (\$20,000.00

The DECIPHER Study: Determinants of Function and Clinically Important outcomes in Proximal Humerus Fractures in the Elder Population: A North American Prospective Cohort. *Orthopaedic Trauma Association (The) (OTA)*. *McKee M, Schemitsch EH*. (\$87,765.00 USD Jan 2016 – Dec 2017).

The Effects of Locally Delivered Bone Marrow-Derived Cells on Fracture Healing in a Diabetic Rat Model. *Orthopaedic Trauma Association (The) (OTA)*. *Schemitsch E, Nauth A*. (\$50,000.00 USD Jan 2016 – Dec 2017).

The Partner Violence and Implementation Science (PSIV) Program of Research. *St. Michael's Hospital Foundation*. *Schemitsch E, O'Campo P, Hall J*. (\$50,000.00 CAD Jun 2016 – Jun 2017).

Validation of the Radiographic Union Score for Tibial Fractures using Medical imaging and Biomechanical Testing in an In vivo Rat Model. *Orthopaedic Trauma Association (The) (OTA)*. *Schemitsch E, Crookshank M*. (\$20,000.00 USD Jun 2016 – May 2017).

## Honours and Awards

**Bogoch, Earl R:** University of Toronto Best Fellows' Training Program. The St. Michael's Hip and Knee Arthroplasty Fellowship was selected as the best educational fellowship program. Dept of Surgery, Faculty of Medicine, University of Toronto. 2016

**Bogoch, Earl R:** Squires-Hyland Trust James Waddell Mentoring Award. 2016.

**Daniels, Timothy:** Roger A. Mann Award (Best Clinical Paper), AOFAS (American Orthopaedic Foot & Ankle Society). July 2015.

**Nauth, Aaron:** St Michael's Hospital/University of Toronto Chair in Fracture Care Research. January 2016.

**Nauth, Aaron:** 2015 Editor's Choice Award – Best Surgical Technique Video, Journal of Bone and Joint Surgery. December 2015.

**Schemitsch, Emil:** Jacques Duparc Award. The European Federation of National Associations of Orthopaedics and Traumatology. One of the 10 best posters during the 16th EFORT Congress. 2015.

## Division of Plastic and Reconstructive Surgery

<b>Dr K. Cross</b>	Assistant Professor
<b>Dr. J.L. Mahoney</b>	Professor (Division Head)
<b>Dr. M.A. Musgrave</b>	Assistant Professor

## Publications

**Alissa S, Al-Otaibi N, Mahoney JL.** Soft Tissue Infection in Critical Care. *The Surgical Critical Care Handbook: A Guide to Care of the Critical Ill Surgical Patient*. 2015; pp 639-653.

**Cross KM, Fish JS.** Chapter 3: Burns, Cold Injury and Electrical Injury. *Surgical Critical Care Handbook*. Elsevier, Canada. 2016. J. Ali (Ed).

## Invited Visits

**Cross, Karen M.** The Caribbean Association of Plastic, Reconstructive and Aesthetic Surgeons 2015, Barbados, October 27–29, 2015. Speaker: 1) Optical technologies: Innovations in assessing oxygenation and tissue viability. 2) Optimizing surgical patients by screening for nutritional disease. 3) An update on the treatment of diabetic foot ulcers. 4) Challenges in the treatment of hidradenitis suppurativa.

**Mahoney, James Leo.** Wound Care 2016, South Africa, May 2016. Presenter: Simple to Complex.

## Research and Investigations

MIMOSA (Multispectral MOBILE tissue Assessment). *St. Michael's Hospital*. *Cross KM*. (\$95,000.00 CAD Jun 2016 – Jun 2018).

Pulse Wave Velocity Imaging in the Assessment of Peripheral Arterial Disease. *Blair Foundation for Vascular Surgery, St. Michael's Hospital*. *Cross KM*. (\$25,000.00 CAD Mar 2016 – Mar 2017).

Reducing post-surgical complications by identifying patients with malnutrition prior to elective surgery. Academic Health Sciences Centres. *Cross KM*. (\$11,988.00 CAD Mar 2016 – Mar 2017).

Understanding and reducing ethnocultural disparities in breast reconstruction. *St. Michael's Hospital*. *Cross KM, Sheer A*. (\$50,000.00 CAD Jun 2016 – Jun 2018).

## Honours and Awards

**Mahoney, James Leo:** Squires Hyland Trust Teaching Award. July 2015.

## Division of Urology

<b>Dr. R.J.D. Honey</b>	Professor
<b>Dr. J. Lee</b>	Assistant Professor
<b>Dr. M. Ordon</b>	Assistant Professor
<b>Dr. K. Pace</b>	Associate Professor (Division Head)
<b>Dr. R. Stewart</b>	Associate Professor

### Publications

- Alzahrani T, Ghiculete D, Pace KT, Honey RJ.** Changing patient position can eliminate arrhythmias developing during extracorporeal shockwave lithotripsy. *Journal of Endourology*. 2016 May; 30(5): 550-4.
- Bishay M, Honey RJD.** A minimally invasive approach to transperitoneal perforation of the bladder during bladder tumour resection. *Canadian Urological Association Journal*. 2016 Mar; 10(3-4):E117-18.
- Blankstein U, Lantz AG, Honey RJD, Pace KT, Ordon M, Lee JY.** Simulation-based Flexible Ureteroscopy Training using a Novel Ureteroscopy Part-task Trainer. *Can Urol Assoc J*. 2015 Oct; 9(9-10): 331-335.
- Butz H, Nofech-Mozes R, Ding Q, Khella HWZ, Szabo PM, Jewett M, Finelli A, Lee J, Ordon M, Stewart R, Kreylov S, Yousef G.** Exosomal miRNAs are diagnostic biomarkers and can mediate cell-cell communication in renal cell carcinoma. *Urology Focus*. 2016 Jun; 2(2): 210-218.
- Lee JY, Alzahrani T, Ordon M.** Intra-corporeal robotic renal auto-transplantation. *Can Urol Assoc J*. 2015 Oct; 9(9-10): 748-749.
- Lee JY, Ordon M.** Innovative Applications of Robotic Surgery: Renal Allograft and Autologous Transplantation. *F1000Research*. 2016 Jan; 5.
- McVey R, Goldenberg M, Bernardini MQ, Yasufuku K, Qureshy FA, Finelli A, Pace KT, Lee JY.** Baseline Laparoscopic Skill May Predict Baseline Robotic Skill and Early Robotic Surgery Learning Curve. *Journal of Endourology*. 2016 May; 30(5): 588-592.
- Ordon M, Andonian S, Blew B, Schuler T, Chew B, Pace KT.** CUA Guideline: Management of Ureteral Calculi. *Can Urol Assoc J*. 2015 Dec; 9(11-12): E837-E851.
- Ordon M, Eichel L, Landman J.** Fundamentals of Laparoscopic and Robotic Urologic Surgery. 2015; pp 195-224. Wein: Campbell-Walsh Urology, Elsevier, United States, Philadelphia. Wein AJ, Kavoussi LR, Partin AW, Peters CA (eds).
- Ordon M, Findeiss L, Landman J.** MR-Guided Renal Ablation. *Advances in Image-Guided Urologic Surgery*. 2015, Springer, United States, New York. Liao J, Su L-M (eds).
- Ordon M, Landman J.** Laparoscopic Nephrectomy. 2015. *Hinman's Atlas of Urologic Surgery*. Elsevier, United States. Dmochowski R, Howards SS, Preminger GM and Smith Jr. JA (eds).
- Ordon M, Welk B, McArthur E, Lam NN, Lentine KL, Nguan C, Garg AX.** Risk of Nephrectomy in Previous Living Kidney Donors. *Transplantation*. 2016 Jun; 100(6): 1313-7.
- Powers MK, Lendvay TS, Boonjindasup A, Pinsky M, Dorsey P, Maddox M, Comstock B, Su LM, Gettman M, Sundaram C, Castle E, Lee JY, Lee B.** Crowdsourcing assessment of surgeon dissection of renal artery and vein during robotic partial nephrectomy: A novel approach for quantitative assessment of surgical performance. *Journal of Endourology*. 2016 Apr; 30(4): 447-452.
- Shao T, Yousef P, Shipilova I, Saleeb R, Lee JY, Krizova A.** Clear Cell Papillary Renal Cell Carcinoma as part of Histologically Discordant Multifocal Renal Cell Carcinoma: A Case Report and Review of Literature. *Pathology - Research and Practice*. 2016 Mar; 212(3): 229-233.
- Welk B, Liu K, Al-Jaishi A, McArthur E, Jain A, Ordon M.** Repeated diagnostic imaging studies in Ontario, and the impact of health information exchange systems. *Healthcare Quarterly*. 2016; 19(1): 24-8.
- Welk N, McArthur E, Fraser LA, Hayward J, Dixon S, Hwang YJ, Ordon M.** The risk of fall and fracture with the initiation of a prostate-selective alpha antagonist. *British Medical Journal*. 2015; 351.

### Invited Visits

- Lee, Jason.** World Congress of Endourology and SWL, London, United Kingdom, October 2015. Presenter: Intra-corporeal Robotic Renal Autotransplantation - Minimizing Ischemia.
- Ordon, Michael.** World Congress of Endourology Meeting 2015, London, United Kingdom, October 2, 2015. Presenter: Is Extracorporeal Shockwave Lithotripsy a Risk Factor for the Development of Diabetes Mellitus- A Population-Based Cohort Study.

### Research and Investigations

- Impact of point-of-care focused GU ultrasonography on ambulatory kidney stone patient care. *2015 Ontario Innovation Funds Provincial Oversight Committee*. Lee J, Ordon M, Pace KT, Honey RJD, Stewart R. (\$8,092.00 CAD Jul 2015 – Jul 2016).
- The Impact of the Choosing Wisely Urology Campaign on Medical Care in the United States and Canada. *American Urological Association*. Ordon M. (\$24,992.00 USD Jan 2016 – Dec 2016).



## Honours and Awards

**Honey, Richardson John D'Arcy:** Best Poster. Canadian Urological Association. June 2016.

**Honey, Richardson John D'Arcy:** Ralph Clayman Mentor Award. Endourological Society. 2016.

**Honey, Richardson John D'Arcy:** James Waddell Mentorship Award. Dept of Surgery, University of Toronto. 2015.

**Lee, Jason:** Donald J Currie Award. Department of Surgery, St Michael's Hospital. Awarded to member of Dept of Surgery faculty in recognition of outstanding contributions to undergraduate education. June 2016.

**Lee, Jason:** Urology Faculty Postgraduate Teaching Award (Surgical Teacher). Awarded by the Division of Urology residents to the faculty member that has contributed the most to their surgical training in the OR setting. June 2016.

## Division of Vascular Surgery

Dr. M. Al-Omran	Professor (Division Head)
Dr. E. Greco	Assistant Professor
Dr. W. Tanner	Assistant Professor
Dr. M.D. Wheatcroft	Assistant Professor

## Publications

**Belchos J, Wheatcroft M, Prabhudesai V, Moloney T.** Development of endotension after multiple rounds of thrombolysis after endovascular aneurysm repair. *Vascular Surgery Cases*. 2015; 22(12): 464-7.

**Belchos J, Wheatcroft M, Moloney T.** Multiple endovascular aortic aneurysm repair graft failures and re-interventions over 15 years. *Sage Open Medical Case Reports*. 2015 Oct; 3.

**Ramadan A, Wheatcroft MD, Quan A, Singh KK, Lovren F, Dhingra N, Teoh H, Al-Omran M, Leong-Poi H, Verma S.** Effects of long-term chloroquine administration on the natural history of aortic aneurysm in mice. *Canadian Journal of Physiology and Pharmacology*. 2015 Aug; 93: 641-8.

## Invited Visits

**Al-Omran, Mohammed.** Canadian Society of Vascular Nursing Annual Conference, Victoria, British Columbia, September 25, 2015. Speaker: Diagnosis and Treatment of Critical Limb Ischemia.

**Al-Omran, Mohammed.** Canadian Cardiovascular Congress, Toronto, Ontario, October 24, 2015. Speaker: Diabetes and Macrovascular Risk: Where do we stand in 2015?

## Research and Investigations

Pulse Wave Velocity Imaging in the Assessment of Peripheral arterial Disease. *Blair Foundation, Supported by the University of Toronto. Greco E.* (Jan 2016 - ).



## Sunnybrook Health Sciences Centre

**Dr. Avery Nathens,**  
*Surgeon-in-Chief*

### Heads of Divisions

<b>Dr. G. Cohen</b>	Cardiac Surgery
<b>Dr. A. Dueck</b>	Vascular Surgery
<b>Dr. T. Mainprize</b>	Neurosurgery
<b>Dr. A. Yee</b>	Orthopaedic Surgery
<b>Dr. P. Binhammer</b>	Plastic and Reconstructive Surgery
<b>Dr. R. Kodama</b>	Urology
<b>Dr. S. Ashamalla</b>	General Surgery

The 2015-16 academic year within the Department of Surgery at Sunnybrook was met with new challenges related to a very difficult fiscal climate and Sunnybrook's sustainability program, together significantly impacting both bed and operating room resources. In spite of these challenges, our academic strength continues to increase with the recruitment of two new surgeon investigators. We also continue to expand our quality improvement activities, having receiving recognition and awards through Health Quality Ontario for our successes in reducing surgical site infections and other nosocomial infections in surgical patients. We have begun to operationalize Sunnybrook Trauma Program's with the hiring of a trauma program manager and approval to fundraise for a new hybrid operating room and a trauma multidisciplinary clinic. Sunnybrook celebrated its 40<sup>th</sup> year as a trauma centre through a Trauma Expo, featuring a simulated trauma resuscitation highlighted on CityTV.

The Department of Surgery at Sunnybrook hosted the Tile Lecture in Trauma with Dr. Geoffrey Manley (Neurosurgery, University of California, San Francisco), speaking on Precision Medicine in Traumatic Brain Injury. Dr. Karen Brasel, Oregon Health & Sciences University was the visiting professor for our Perioperative Grand Rounds and gave an excellent talk on "Best Case, Worst Case, Helping Patients Understand Prognosis." Sunnybrook also hosted University Grand Rounds focusing on global surgery, with Dr. Anna Dare speaking on her involvement with the Lancet Commission on Global Surgery and Dr. Jim Turner, a pediatric orthopaedic fellow who spoke on the merits of the World Health Organizations' trauma checklist.

### Recruitment

**Dr. Alan Rogers** was recruited to the Division of Plastic and Reconstructive Surgery as a burn surgeon in the Ross Tilley Burn Centre. Dr. Rogers is a surgeon investigator with a focus on quality and patient safety.

**Dr. Sebastian Tomescu** was recruited to the Division of Orthopaedic Surgery with a focus on arthroplasty. He has been appointed as a surgeon investigator and has a laboratory focusing on biomechanics.



### Departures

Drs. **Richard Holtby** and **John Cameron**, from the Division of Orthopaedic Surgery retired from clinical practice. Both are thanked for their years of service and contributions to the Department.

### Division Reports

#### Cardiac surgery

**Dr. George Christakis** was named the recipient of the 2015 John Provan Outstanding Surgical Educator Award. This honour is sponsored by the Canadian Association of Surgical Chairs and is awarded annually in recognition of outstanding contribution to undergraduate surgical education in Canada. **Dr. Stephen Fremes** was re-appointed as the Goldman Chair in cardiac surgery

#### Neurosurgery

**Dr. Todd Mainprize** and his team accomplished a world's first, using focused ultrasound to deliver chemotherapy across the blood brain barrier. This landmark event was profiled in the Globe and Mail, CTV news and received considerable attention from the medical community. **Dr. Mainprize** was also appointed as Division Head, Neurosurgery, transitioning from his previous interim role. **Dr. Victor Yang's** spinal navigation technology was recognized through an award at the annual meeting of the National American Spine Society for best innovation.

#### General Surgery

**Dr. Shady Ashamalla** transitioned was appointed as Division Head, General Surgery, transitioning from his previous interim role. **Dr. Ashamalla** led the creation of the Mike Richards and Doug Gilmour foundation to support continuing surgical education in minimally invasive colorectal cancer surgery at Sunnybrook.

**Dr. Lorraine Tremblay** received the Department of Critical Care Medicine's teaching award. **Dr. Paul Karanicolas** was promoted to the rank of Associate Professor and also received a Ministry of Research and Innovation Early Researcher Award for his work on improving outcomes after liver resection. Both **Dr. Karanicolas** and **Dr. Frances Wright** in her role as fellowship director, Surgical Oncology brought the University of Toronto through a successful accreditation process of a designated Hepatobiliary oncology fellowship through the Fellowship Council and the ACGME. **Dr. Karanicolas, Dr. Ashamalla, and Dr. Barto Nascimento** all successfully passed their continuing appointment reviews. **Dr.**

**Nascimento** was named the chair of the Canadian Research Outcomes Consortium Trauma Committee – a lead for the conduct of related pan-Canadian clinical trials. Dr. James Byrne, supervised by **Dr. Avery Nathens** was awarded the best research presentation at the American College of Surgeons International Resident Research Competition and also received an award for best presentation at Gallie Day. **Dr. Nathens** was appointed as Medical Director of Trauma at Sunnybrook, taking over from **Dr. Homer Tien**, who was appointed Medical Director of Ornge, Ontario’s air ambulance agency.

### Plastic and Reconstructive Surgery

**Dr. Oleh Antonyshyn** was the recipient of the Department of Surgery Undergraduate teaching award. Dr. Antonyshyn role as lead of the medical mission at Ukraine Military Hospital was featured by CTV’s investigative documentary series, W-5. **Dr. Laura Snell** successfully passed her continuing appointment review. **Dr. Marc Jeschke** was elected executive council member of the Surgical Infection Society and the Ross Tilley Burn Centre (RTBC) was awarded a large grant by Toronto Hydro to support stem cell research. Dr. Stephanie Mason, co-supervised by Dr. Jeschke (and Dr. Nathens) received an award for best poster at Gallie day as did Dr. Dolp, who was supervised by Drs. Jeschke and Saied Amini-Nik.

Through the International Nutrition Survey fielded by *Critical Care Nutrition*, the RTBC received the Best of the Best Award – second place among all participating ICU’s and first among burn units – for its nutritional support of this complex patient population.

Surgeons from the Ross Tilley Burn Centre led by **Dr. Shar Sharhoki** have implemented a Complex Wound Service to support the needs of surgical patients across the Department

### Urology

**Dr. Laurie Klotz** received the Richard Williams Award by the American Urological Association, for the highest impact research in

prostate cancer over the last decade. **Dr. Robert Nam** received a Professional Association of Residents of Ontario Excellence in Clinical Teaching award. **Dr. Sender Herschorn** was named the Director of the University-wide program in Functional Urology through a major investment by Astellas Pharma Canada to support clinical, population-based, and health services research and to establish Toronto as a centre for excellence in functional urology.

### Orthopaedic Surgery

**Dr. Albert Yee** was appointed chief, Holland Musculoskeletal Program and Division Head, Orthopaedic Surgery. **Dr. Hans Kreder** was thanked for over 10 years of service, having previously held these positions. **Dr. Richard Holtby** (Orthopaedic Surgery), received the **Marvin Tile Award** for 30 years of service to the Department including service on the REB (10 years), MDMSA executive (and it’s president), Chair of the AFP Management Board, his innovations in arthroscopic surgery of the shoulder and his stemless should prosthesis (the “Nano”). Several faculty members including Dr. John Cameron and Dr. Sebastian Tomescu were featured in the National Post for the innovative approach to “job sharing” to facilitate recruitment of new faculty and provide mentorship through the experience of late career surgeons.

### Vascular Surgery

**Dr. Andrew Dueck** was recognized as the best faculty teacher in the University Division of Vascular Surgery. Dr. Trisha Roy, supervised by **Dr. Dueck**, received a Vanier Canada Graduate Scholarship. **Dr. Giuseppe Papia** received a Peters-Boyd Academy clerkship faculty teaching award and was also named treasurer of Sunnybrook Medical-Dental-Midwifery Staff Association.

## Division of Cardiac Surgery

<b>Dr. G.T. Christakis</b>	Professor
<b>Dr. G. Cohen</b>	Associate Professor (Division Head)
<b>Dr. S. Fremes</b>	Assistant Professor
<b>Dr. F. Moussa</b>	Lecturer

### Publications

**Aldea GS, Bakaen FG, Pal J, Fremes S, Head SJ, Sabik J, Rosengart T, Kappetein AP, Thourani VH, Firestone S, Mitchell JD.** The Society of Thoracic Surgeons Clinical Practice Guidelines on Arterial Conduits for Coronary Artery Bypass Grafting. *Ann Thorac Surg.* 2016 Feb;101(2):801-9.

**Cowan B, Rojas D, Kapralos B, Moussa F, Dubrowski A.** Effects of Sound on Visual Realism, Perception and Task Performance. *Visual Computer.* 2015 Sept; 31(9): 1207-1216.

**Deb S, Fremes SE.** An arterial faceoff classic: The “T off” between the right internal thoracic and radial arteries. *J Thorac Cardiovasc Surg.* 2016 May;151(5):1320-2.

**Deb S, Fremes SE.** Y vein? Y not? The underdog of the composite arterial world. *JTCVS.* 2015 Nov; 150(5): 1195-7.

**Kapralos W, Moussa F, Collins K, Dubrowski A.** Fidelity and Multimodal Interactions. *Instructional Techniques to Enhance Learning and Motivation of Serious Games.* Springer. 2015, Chapter 4.

**Lapum J, Liu L, Hume S, Wang S, Nguyen M, Harding B, Church K, Cohen G, Yau T.** Pictorial narrative mapping as a qualitative analytic technique. *International Journal of Qualitative Methods.* 2015 Dec; 14:1-15.



**Mazine A, Badiwala M, Cohen G.** Year in Review: Complex Valve Reconstruction. *Curr Opin Cardiol.* 2016 Mar;31(2):154-61.

**Peterson MD, Mazine A, El-Hamamsy I, Manlhiot C, Ouzounian M, MacArthur RG, Wood JR, Bozinovski J, Apoo J, Moon MC, Boodhwani M, Hassan A, Verma S, Dagenais F, Chu MW; Canadian Thoracic Aortic Collaborative Investigators.** Knowledge, attitude and practice preferences of Canadian cardiac surgeons toward the management of acute type A dissections. *J Thorac Cardiovasc Surg.* 2015 Oct;150(4):824-31.e1-5.

**Samano N, Geijer H, Liden M, Fremes S, Bodin L, Souza D.** The no-touch saphenous vein for coronary artery bypass grafting maintains a patency, after 16 years, comparable to the left internal thoracic artery: A randomized trial. *J Thorac Cardiovasc Surg.* 2015 Oct; 150(4):880-8.

**Shuvy M, Mewa J, Wolff R, Hutson J, Austin PC, Bentley D, Iacovelli M, Callum J, Radhakrishnan S, Fremes SE, Wijeyesundera HC, Lin Y.** Preprocedure Anemia Management Decreases Transfusion Rates in Patients Undergoing Transcatheter Aortic Valve Implantation. *Can J Cardiol.* 2016 Jun;32(6):732-8.

**Tsai MT, Tang GH, Cohen GN.** Year in Review: Transcatheter Aortic Valve Replacement. *Curr Opin Cardiol.* 2016 Mar;31(2):139-47.

**Walsh M, Whitlock R, Garg AX, Légaré JF, Duncan AE, Zimmerman R, Miller S, Fremes S, Kieser T, Karthikeyan G, Chan M, Ho A, Nasr V, Vincent J, Ali I, Lavi R, Sessler D, Kramer R, Gardner J, Syed S, VanHelder T, Guyatt G, Rao-Melacini P, Thabane L, Devereaux PJ; Remote IMPACT Investigators.** Effects of remote ischemic preconditioning in high-risk patients undergoing cardiac surgery (Remote IMPACT): a randomized controlled trial. *CMAJ.* 2015 Dec; doi: 10.1503/cmaj.150632.

**Whitlock RP, Devereaux PJ, Teoh KH, Lamy A, Vincent J, Pogue J, Paparella D, Sessler DI, Karthikeyan G, Villar JC, Zuo Y, Avezum Á, Quantz M, Tagarakis GI, Shah PJ, Abbasi SH, Zheng H, Pettit S, Chrolavicius S, Yusuf S; SIRS Investigators.** Methylprednisolone in patients undergoing cardiopulmonary bypass (SIRS): a randomised, double-blind, placebo-controlled trial. *Lancet.* 2015 Sep 26;386(10000):1243-53.

## Invited Visits

**Cohen, Gideon.** Monica Matys, Huffington Post, Nov 27, 2015. Speaker: One Heart Surgery, Two Procedures: A Canadian First.

**Cohen, Gideon.** Edwards Lifesciences, Irvine, California, Jan 2016. Invited Speaker: Percutaneous mitral valve repair: The Sunnybrook Experience.

**Cohen, Gideon.** Canadian Cardiovascular Research Network/Oshawa Hospital, Pickering, Ontario, Jan 7, 2016. Keynote Speaker: Forget the CHF Guidelines - Call the Surgeon.

**Fremes, Stephen.** Annual Meeting of the American Heart Association, Orlando, Florida, Nov 2015. Invited Speaker: Arterial Revascularization.

**Moussa, Fuad.** The Vaughn Heart Institute, Vaughn, Ontario, Apr 20, 2016. Invited Speaker: The Role of Hybrid Revascularization Introduction to hybrid coronary revascularization to family physicians and cardiologists.

**Moussa, Fuad.** Montreal Heart Institute, Montreal, Quebec, Jun 3, 2016. Panelist: Montreal Live Symposium-Heart Team Summit.

## Research and Investigations

A multimedia production to enhance understanding of knowledge translation in post-secondary curricula. *Ryerson University. Lapum J, Ruttonsha P, Church K, Yau T, Cohen G.* (\$18,587.00 CAD Oct 2015).

Sodium Selenite Administration in Cardiac Surgery (SUSTAIN CSX®-trial). *Lotte & John Hecht Memorial Foundation. Heyland DK, Fremes, SE.* (\$2,983,447.00 Jan 2016 - Aug 2020).

A randomized controlled trial of rivaroxaban for the prevention of major cardiovascular events in patients with coronary or peripheral artery disease (COMPASS - Cardiovascular Outcomes for People using Anticoagulation Strategies) Rivaroxaban for the prevention of major cardiovascular events in CAD or PAD (COMPASS). *Bayer Pharmaceuticals. Fremes S, Eikelboom J.* (\$6,000.00 per enrolled patient Nov 2015 - Jan 2018).

## Honours and Awards

**Cohen, Gideon:** Sunnybrook Moment Award, Sunnybrook Health Sciences Centre. In recognition for outstanding service and dedication to patients. 2015.

**Fremes, Stephen:** Bernard Goldman Award for Excellence in Cardiac Surgery Teaching. 2016 - 2017.

**Moussa, Fuad:** Sunnybrook Moment of Service Excellence. Sunnybrook Health Sciences Centre, Patient Appreciation. 2016.

## Division of General Surgery

Dr. S. Ashamalla	Assistant Professor (Division Head)
Dr. F.D. Brenneman	Associate Professor
Dr. P.T.Y. Chu	Associate Professor
Dr. N. Coburn	Associate Professor
Dr. D. Fenech	Assistant Professor
Dr. J. Hallet	Assistant Professor
Dr. .C. Holloway	Associate Professor
Dr. P.J. Karanicolas	Associate Professor
Dr. C. Law	Professor
Dr. N.J. Look Hong	Assistant Professor
Dr. B. Nascimento	Assistant Professor
Dr. A.B. Nathens	Professor
Dr. A.J. Smith	Professor
Dr. H. Tien	Associate Professor
Dr. L. Tremblay	Assistant Professor
Dr. F. Wright	Associate Professor

### Publications

- Akhtar U, Muzaffar N, Malik IA, Rafique I, Bhatti JA.** Medical Reporting of Suspected Self-Poisoning Patients at a Teaching Hospital in Pakistan. *Suicidol Online.* 2015; 6(2): 13–20.
- Alali AS, Burton K, Fowler RA, Naimark DM, Scales DC, Mainprize TG, Nathens AB.** Economic Evaluations in the Diagnosis and Management of Traumatic Brain Injury: A Systematic Review and Analysis of Quality. *Value Health.* 2015 Jul;18(5):721–34.
- Alali AS, Gomez D, Sathya C, Burd RS, Mainprize TG, Moulton R, Falcone RA Jr, de Mestral C, Nathens A.** Intracranial pressure monitoring among children with severe traumatic brain injury. *J Neurosurg Pediatr.* 2015 Aug 14:1–10.
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- Webman RB, Carter EA, Mittal S, Wang J, Sathya C, Nathens AB, Nance ML, Madigan D, Burd RS.** Association Between Trauma Center Type and Mortality Among Injured Adolescent Patients. *JAMA Pediatr*. 2016 Jun 27. doi: 10.1001/jamapediatrics.2016.0805.
- Yang Z, Zhang L, Serra S, Law CHL, Wei A, Stockley TL, Ezzat S, Asa SL.** Establishment and Characterization of a Human Neuroendocrine Tumor Xenograft. *Endocrine Pathology*. 2016 Jun; 27(2): 97-103.
- Yohanathan L, Coburn NG, McLeod RS, Kagedan DJ, Pearsall E, Zih FS, Callum J, Lin Y, McCluskey S, Hallet J, Best Practices in General Surgery (BPIGS) group.** Understanding Perioperative Transfusion Practices in Gastrointestinal Surgery—a Practice Survey of General Surgeons. *J Gastrointest Surg*. 2016 Jun; 20(6): 1106-22.
- Zhang Y, Mahar A, Edgar B, Williams V, Wallace D, Vearncombe M, Fenech D, Coburn N.** Length of Surgery and Intra-operative Best Practices Determine Surgical Site Infection Risk in Operations of Prolonged Duration. *CJIC*. 2015 Oct; 30(3): 158-164.

## Invited Visits

- Ashamalla, Shady.** Mike Richards in the morning - Sports Radio, TSN, September 2015. Invited Speaker: Minimally Invasive Transanal Rectal Cancer Surgery.
- Ashamalla, Shady.** Beverly Thompson, Canada AM, CTV, September 2015. Invited Speaker: Minimal Invasive Management of Rectal Cancer.
- Coburn, Natalie.** Canadian Surgery Forum 2015, Quebec City, September 17, 2016. 1) Invited Speaker: Mastering Multimodality Cancer Care CSSO/CSCRS/CHPBA/CATS PG. 2) Presenter: Risk factors for positive resection margins in gastric adenocarcinoma: a population-based analysis.
- Coburn, Natalie.** Canadian Journal of Surgery Biology Club, Quebec, September 19, 2015. Presenter: Predictors of Actual Survival in Resected Pancreatic Adenocarcinoma: A Population-Level Analysis.
- Coburn, Natalie.** CHPBA, Quebec, September 19, 2015. Presenter: 1) The Impact of Tranexamic Acid on Fibrinolytic Activity During Major Liver Resection. 2) Predictors of Actual Survival in Resected Pancreatic Adenocarcinoma: A Population-Level Analysis. 3) Predictors for Positive Resection Margins in Gastric Adenocarcinoma: A Population-Based Analysis. 4) The Effect of Early Post-Operative Non-Steroidal Anti-Inflammatory Drugs on Pancreatic Fistula Following Pancreaticoduodenectomy. 5) Negative Predictive Value of Preoperative Abdominal CT in Determining Gastric Cancer Resectability on a Population Level.
- Coburn, Natalie.** Videoconference, Society of Surgical Oncology Canada, October 15, 2015. Moderator: Esophageal, gastric small bowel cancer.
- Coburn, Natalie.** BC Cancer Agency, Vancouver, British Columbia, November 7, 2015. Keynote Speaker: Best Chance for Cure.
- Coburn, Natalie.** A. C. Camargo Cancer Center, São Paulo, Brazil, April 20, 2016. Invited Speaker: Variations in Care for Cancer Patients.
- Hallet, Julie.** Canadian Surgery Forum, Québec City, Quebec, September 18, 2015. Chair: CAGS Paper Session.
- Hallet, Julie.** Association Française de Chirurgie - 117e Congrès Français de Chirurgie, Paris, France, October 2015. Panel Member: 1) Communications libre - foie (communications - liver). 2) Chirurgie digestive - Quoi de neuf en 2015? (Gastrointestinal surgery - What's new in 2015?).
- Karanicolas, Paul Jack.** CHPBA - Canadian Surgery Forum - CAGS, Quebec City, Quebec, September 19, 2015. Speaker: The Impact of Perioperative Blood Transfusions on Post-Hepatectomy Short-Term Outcomes: An Analysis from the American College of Surgeons National Surgical Quality Improvement Program.
- Karanicolas, Paul Jack.** Travelling Surgical Society of Great Britain and Ireland, Toronto, Ontario, June 7, 2016. Presenter: Bleeding and blood transfusion during liver resection: Towards bloodless surgery.
- Law, Calvin.** ECC - Amgen Gastrointestinal Cancer Ambassador Meeting, Vienna, Austria, September 28, 2015. Presenter: SURGICAL TOPICS IN mCRC ECCO 2015 CME Accreditation.
- Law, Calvin.** Australian Gastro-Intestinal Trials Group, Honolulu, Hawaii, November 5, 2015. Invited Speaker: COMMNETS group Commonwealth Neuroendocrine Tumor group.
- Law, Calvin.** Novartis, Dubai, United Arab Emirates, April 29, 2016. Invited Speaker: 1) Incidental diagnosis of NETs and follow-up plan. 2) Treatment of NETs with Sandostatin LAR.
- Law, Calvin.** Canadian Update in Surgical Procedures (CUSP), June 4, 2016. Chair: Debate: Debulking for carcinoid liver metastases - why bother versus it's the way to go HPB Controversies in Hepatobiliary Surgery.
- Nascimento, Barto.** CERUS corporation - AABB Annual Meeting, Anaheim, California, October 25, 2015. Invited Speaker: Creative Cryo: Fibrinogen Replacement Therapies: Advantages and Disadvantages.



**Nathens, Avery B.** National Academy of Sciences: Institute of Medicine Committee on Military Trauma Care's Learning Health System and its Translation to the Civilian Sector, Washington DC, July 23, 2015. Invited Speaker: Trauma Data and Information Systems: Civilian Sector.

**Nathens, Avery B.** Huffington Post Media Appearance, September 19, 2015. Quoted: You Can and Should Ask These Questions Before Consenting to Surgery.

**Nathens, Avery B.** Trauma Center Association of America, Louisville, Kentucky, September 21, 2015. Invited Speaker: Geriatric trauma.

**Nathens, Avery B.** Eastern Association for the Surgery of Trauma, San Antonio, Texas, January 14, 2016. Invited Speaker: Developing valid, meaningful, and useful trauma quality metrics for the future.

**Nathens, Avery B.** Richard L. Simmons Lecture in Surgical Science, University of Pittsburgh, Pittsburgh, Pennsylvania, May 11, 2016. Keynote Speaker: Trauma care: A case study in translating research into policy.

**Rizoli, Sandro.** II International Symposium on the Care for the Injured Patient, Sao Paulo, Brazil, August 1, 2015. Lecturer: 1) Focus intra-operative bleeding: pitfalls. 2) Coagulopathy prevention: how to achieve it?

**Rizoli, Sandro.** Resident and Fellows Paper Competition of the Trauma Association of Canada and Committee on Trauma of the American College of Surgeons at the Canadian Surgery Forum, Quebec City, Quebec, September 19, 2015. Chair & Judge.

**Rizoli, Sandro.** XXVIII Panamerican Clinical Congress of Trauma, Santa Cruz, Bolivia, November 14, 2015. Lecturer: 1) North vs. South debate. 2) How to resuscitate injured patients taking the novel oral anticoagulants. 3) Blood transfusions should be tailored to the patient in front of you.

**Rizoli, Sandro.** 14th Annual Kuwait Postgraduate Assembly in Surgery and 3rd Annual Kuwait Surgical Society Meeting, Kuwait City, January 2016. Lecturer 1) Assessment and management of massive bleeding. 2) Blunt hepatic trauma. 3) Management of stab wounds to the anterior abdominal wall. 4) Evidence based telemedicine. 5) Further understanding traumatic brain injury.

**Rizoli, Sandro.** Kuwait University, Faculty of Medicine, Kuwait City, January 31, 2016. Examiner: Practice oral exam for senior general surgery residents.

**Rizoli, Sandro.** 9th Annual Blood & Beyond Conference, Halifax, Nova Scotia, April 23, 2016. Presenter: 1) State of the art trauma management. 2) Viscoelastic hemostatic monitoring for decision support.

**Rizoli, Sandro.** 1st International Trauma Symposium, XVI Introductory Course of the Trauma League and Emergency Surgery, Faculty of Medicine of Santo Amaro (UNISA), São Paulo, Brazil, April 26, 2016. Lecturer: Trauma, bleeding and coagulopathy.

**Rizoli, Sandro.** University of Santo Amaro, São Paulo, Brazil, April 28, 2016. Visiting Professor: Definitive Surgical Trauma Course (DSTC).

**Rizoli, Sandro.** State University of Campinas (UNICAMP), Campinas, Brazil, April 28, 2016. 1) Lecturer: XVIII Trauma Course and Pre-Congress of the Brazilian Trauma Leagues Coagulopathy in trauma, management from pre-hospital to ICU. 2) Course Director: Definitive Surgical Trauma Course (DSTC).

**Tremblay, Lorraine.** Canadian Surgical Forum, Quebec City, Quebec, September 18, 2015. Invited Speaker: East - West Rapid Fire Trauma & Acute Care Surgery Debates. Multi-topic debates on current management controversies.

**Wright, Frances.** Canadian Association for Health Services and Policy Research (CAHSPR), Toronto, Ontario, May 10, 2016. Presenter: Early Integration of Palliative Care in Ontario: Integrate.

**Wright, Frances.** Canadian Association of General Surgeons/ Canadian Society of Surgical Oncology, Quebec City, Quebec, September 17, 2015. Invited Speaker: Implementing Multidisciplinary Cancer Conferences.

## Research and Investigations

A Pilot Study of the neo-adjuvant use of Vemurafenib plus Cobimetinib (GDC-0973) in patients with BRAF mutant melanoma with palpable lymph node metastases. *Hoffmann-la Roche Limited, Canada. Petrella T, Wright FC, Look Hong N, Cheema P, Sade S, Spatz A.* (\$200,000.00 CAD Sept 2015 – Sept 2017).

A systematic review, modified delphi survey and Canadian consensus conference on contralateral prophylactic mastectomy for non-high risk women with unilateral early stage breast cancer or DCIS. *Canadian Institute of Health Research. Wright F, Baxter N, Covelli A, Gagliardi A, Look Hong N, Quan ML.* (\$10,000.00 CAD Dec 2015 – Dec 2016).

Developing a National Consensus Statement for Contralateral Prophylactic Mastectomy (CPM) in Breast Cancer. *Canadian Institutes of Health Research (CIHR). Look Hong NJ.* (\$10,000.00 CAD 2015).

Effect of Remote Ischemic Conditioning in Trauma Patients with Hemorrhagic Shock: A novel intervention aimed at reducing immune activation and improving patient outcome. *Rotstein OD, Rizoli SB, Wên XY, Rhind S. St. Michael's Hospital Foundation.* (\$50,000.00 CAD Jul 2015 – Jul 2016).

Effect of Remote Ischemic Conditioning on Neutrophil Function and the Immune-Inflammatory and Coagulation Profiles in Trauma Patients with Hemorrhagic Shock. *Physicians' Service Foundation. Rotstein OD, Rizoli SB, Leung CH, Topolovec-Vranic J, Rhind S, Thorpe K.* (\$167,933.00 CAD 2015 - 2017).

HPB CONCEPT: An Integrated Program to Improve Outcomes Following Liver Surgery. *Ministry of Research. Karanicolas PJ.* (\$150,000.00 CAD Mar 2016 – Mar 2021).

Improving Patient Safety and Quality of Care in Transition from Acute Trauma Care Hospitalization: the IMPACT study. *Canadian Medical Protective Association (CMPA). Nathens A, Gotlib-Conn L.* (\$49,500.00 Nov 2015 – Nov 2016).

Informing and personalizing the decision for contralateral prophylactic mastectomy: The development of evidence-based decision support tools for patients and practitioners to reduce the overtreatment of early breast cancer. *University of Toronto, Division of Medical Oncology. Holloway C, Eisen A, Scheer A, Cordeiro E.* (\$30,000.00 CAD Sept 2015 – Aug 2016).

Operative versus Non-operative Treatment of Acute Unstable Chest Wall Injuries: A Multi-Centred Randomized Controlled Trial. *Canadian Institutes of Health Research (CIHR). Schemitsch E, Dehghan N, Mckee M, Nauth A, Baker AJ, Brochard LJ, Friedrich J, Hameed SM, Hoch JS, Isaranuwachai W, Jenkinson RJ, Mamdani M, Marshall JC, Nathens AB, Pollard BA, Rizoli SB, Slobogean G, Thorpe KE, Whelan DB.* (\$682,546.00 Jul 2015 – Jul 2020).

The association between burn injury and mental health: a population-based analysis. *PSI Foundation. Nathens AB.* (\$19,500.00 Dec 2015 – Dec 2016).

The Canadian Resuscitation Outcomes Consortium (CanROC): Toward a National Clinical Research Network. *CIHR. Nascimento B, Morrison L, Christenson J, Stiell I.* (\$1,500,000.00 CAD 2015 – 2020).

The impact of Repository Imaging Services (RIS)-based imaging on hepato-pancreatico-biliary cancer care. *Canada Health Infoway. Hallet J.* (\$50,000.00 CAD Mar 2016 – Oct 2016).

The management of small bowel obstruction: a population-based analysis on practices and outcomes. *Physicians Services Incorporated Foundation (The) (PSI). Nathens AB, Karanicolas P.* (\$20,000.00 Jun 2016 – Jun 2018).

The NEUROlogically-impaired extubation Timing Trial (NEURO-ETT). *Canadian Institutes of Health Research (CIHR). Scales D, Adhikari NK, Alali AS, Baker AJ, Bosma KJ, Brochard LJ, Chapman MG, Charbonney E, Cuthbertson BH, Fowler RA, Griesdale D, Mainprize TG, McCredie VA, Meade MO, Nathens AB, Rubinfeld G, Seely AJ, Singh JM, Turgeon AF, Wilcox ME, Zygun DA.* (\$880,404.00 Jul 2015 – Jul 2020).

Using rotational thromboelastometry and simplified guidelines to reduce inappropriate transfusion of blood and blood products to trauma patients at St. Michael's Hospital. *St. Michael's Hospital AFP Rizoli S.* (\$29,200.00 CAD 2015 – 2016).

## Honours and Awards

**Bhatti, Junaid Ahmad:** Outstanding Poster Award, Association for Advancement of Automotive Medicine. 2015.

**Bhatti, Junaid Ahmad:** Travel Grant, International Traffic Medicine Association. 2015.

**Coburn, Natalie:** Second Place Award Certificate in Recognition of Scientific Abstract – Poster Session 7th Clinical Robotic Surgery Association Worldwide Congress Award Certificate. Oct 2015.

**Hallet, Julie:** Top Judge's Choice – Innovation Prize, Poster Presentation, Annual Inter-professional Showcase, Sunnybrook Health Sciences Centre Research Award. June 2016.

**Karanicolas, Paul Jack:** Best Surgical Lecture for the GSO fellowship, U of T Division of General Surgery, Teaching and Education Award. 2016.

**Nathens, Avery B:** Best poster award: Nurse-Initiated Urinary Catheter Removal to Reduce Healthcare-associated Urinary Tract Infections, Health Quality Ontario. October 2015.

**Tremblay, Lorraine:** Award for Individual Teaching Excellence (Sunnybrook Health Sciences Centre). Voted by city wide clinical fellows. June 2016.

## Division of Neurosurgery

<b>Dr. L. da Costa</b>	Associate Professor
<b>Dr. M. Fazl</b>	Assistant Professor
<b>Dr. T. Mainprize</b>	Assistant Professor (Division Head)
<b>Dr. N. Phan</b>	Assistant Professor
<b>Dr. F. Pirouzmand</b>	Assistant Professor
<b>Dr. M.L. Schwartz</b>	Professor
<b>Dr. V.X.D. Yang</b>	Associate Professor

## Publications

**Alali AS, Burton K, Fowler RA, Naimark DM, Scales DC, Mainprize TG, Nathens AB.** Economic Evaluations in the Diagnosis and Management of Traumatic Brain Injury: A Systematic Review and Analysis of Quality. *Value Health.* 2015 Jul; 18(5): 721-34.

**Alali AS, Gomez D, Sathya C, Burd RS, Mainprize TG, Moulton R, Falcone RA Jr, de Mestral C, Nathens A.** Intracranial pressure monitoring among children with severe traumatic brain injury. *J Neurosurg Pediatr.* 2015 Aug 14:1-10.

**Bethune A, da Costa L, van Niftrik B, Feinstein A.** Suicidal Ideation After Mild Traumatic Brain Injury: A Consecutive Canadian Sample. *Arch Suicide Res.* 2016 Jun 16:1-11.

- Cunha MVR, Lipsman N, da Costa L.** Acute cerebral hemodynamic insufficiency after plaque hemorrhage. *Canadian Journal of Neurological Sciences.* 2016 Jun; DOI: 10.1017/cjn.2016.252.
- da Costa L, van Niftrik CB, Fierstra J, Bethune A.** Temporal profile of cerebrovascular reactivity impairment, grey matter volumes and persistent symptoms after mild traumatic head injury. *Front Neurol.* 2016 May 11;7:70.
- Fam DJ, Shammi P, Mainprize TG, Murray BJ.** Dramatic Cataplexy Improvement Following Right Parietal Surgery. *J Clin Sleep Med.* 2015 Jul; 11(7): 829-30.
- Hawryluk G, Phan N, Ferguson A, Morabito D, Derugin N, Stewart C, Knudson M, Rosenthal G, Manley GT.** Brain tissue oxygen tension and its response to physiological manipulations: influence of distance from injury site in a swine model of traumatic brain injury. *J Neurosurg.* 2016 Feb 5:1-12.
- Jhas S, Pirouzmand F.** Obtuse-angled laminotomy as a modification of multilevel laminectomy for spinal cord decompression. *Clin Spine Surg.* 2016 Mar;29(2):49-51.
- Kumar A, Yang V, da Costa L.** Traumatic anterior cerebral artery aneurysms and management options in the endovascular era. *J Clin Neurosci.* 2016 Mar;25:90-5.
- Mansouri A, Larjani S, Klironomos G, Laperriere N, Cusimano M, Gentili F, Schwartz M, Zadeh G.** Predictors of response to gamma knife radiosurgery for intracranial meningiomas. *J Neurosurg.* 2015 Nov;123(5):1294-300.
- Pang EW, Dunkley BT, Doesburg SM, da Costa L, Taylor MJ.** Reduced brain connectivity related to decreased mental flexibility in mild traumatic brain injury. *Ann Clin Transl Neurol.* 2016 Feb; 3(2): 124-131.
- Wilson JR, Voth J, Singh A, Middleton J, Jaglal SB, Singh JM, Mainprize TG, Yee A, Fehlings MG.** Defining the Pathway to Definitive Care and Surgical Decompression after Traumatic Spinal Cord Injury: Results of a Canadian Population-Based Cohort Study. *J Neurotrauma.* 2016 May; 33(10): 963-71.

## Invited Visits

- da Costa, Leodante.** 11th Current Controversies in Spine Surgery, Royal Oak, Michigan, July 22, 2015. Invited Speaker: Surgical approaches to traumatic lesions of the sub-axial spine.
- Mainprize, Todd.** FUSE, Virginia, November 9, 2015. Invited Speaker: 1) Sunnybrook Experience in Tumor Ablation using MRIGFUS. 2) Experience of BBB disruption in GBM.
- Mainprize, Todd.** NIH, Bethesda, Maryland, June 7, 2016. Keynote Speaker: Blood Brain Barrier Disruption in Neuro Oncology.
- Mainprize, Todd.** Canadian NeuroOncology Conference, Toronto, Ontario, June 10, 2016. Facilitator: Advances in Treatment of Brain Metastases.
- Mainprize, Todd.** University of Saskatchewan, College of Medicine, Saskatoon, Saskatchewan, June 17, 2016. Keynote Speaker: The Use of Focused Ultrasound in Neuro Oncology.
- Pirouzmand, Farhad.** Acoustic neuroma Association of Canada (ANAC) meeting, Ontario, June 2016. Chair: Exploring ABI option post surgical resection of AN.
- Pirouzmand, Farhad.** International symposium on meningioma, Society of Neuro-Oncology, Canada, June 2016. Invited Speaker: Potential therapeutic role of transcranial Magnetic resonance-guided focused ultrasound surgery in recurrent skull base meningioma, A feasibility study.
- Pirouzmand, Farhad.** International Cochlear Implant, Canada, May 2016. Speaker: Predictors of Improved Hearing Outcomes Post Auditory Brainstem Implantation in Adults: An Individual Patient Data Meta-analysis.

## Research and Investigations

- Quantitative blood oxygen level dependent (qBOLD) MRI for assessment of tumor hypoxia in glioblastoma multiforme: Validation with intraoperative and histological correlation. *Radiology Society of North America. Mainprize T.* (\$152,000.00 USD Jul 2015 – Jul 2017).
- A Study to evaluate the safety and feasibility of Blood Brain Barrier disruption using transcranial MR guided focused ultrasound with intravenous ultrasound contrast agents in the treatment of Her2-positive cancer brain metastases. *Kavelmann Fonn Clinical Trials Grant. Mainprize T.* (\$100,000.00 CAD Jun 2016 – Jun 2017).
- A Phase 2/3 Randomized, Open-Label Study of Toca 511, a Retroviral Replicating Vector, Combined With Toca FC versus Standard of Care in Subjects Undergoing Planned Resection for Recurrent Glioblastoma or Anaplastic Astrocytoma. Tocagen. Mainprize T. (May 2016 – Jun 2017). 2018 Surgical Navigation Technology. FedDev. Yang VXD. (\$997,000.00 CAD 2015).

## Honours and Awards

- Mainprize, Todd:** Ross Fleming Surgical Teaching Award, University of Toronto. July 2015.
- Phan, Nicolas:** Sunnybrook Moment of Clinical Excellence. July 2015.



## Division of Orthopaedics

Dr. T.S. Axelrod	Professor
Dr. H.U. Cameron	Associate Professor
Dr. J.A. Finkelstein	Associate Professor
Dr. M. Ford	Assistant Professor
Dr. J. Gollish	Assistant Professor
Dr. P. Henry	Assistant Professor
Dr. R. Holtby	Assistant Professor
Dr. R. Jenkinson	Assistant Professor
Dr. H.J. Kreder	Professor
Dr. L.P. Marks	Associate Professor
Dr. J.J. Murnaghan	Associate Professor
Dr. D. Nam	Assistant Professor
Dr. M. Nousiainen	Assistant Professor
Dr. R.R. Richards	Professor
Dr. D.J.G. Stephen	Associate Professor
Dr. S.S. Tomescu	Lecturer
Dr. V.M.R. Wadey	Associate Professor
Dr. D. Wasserstein	Assistant Professor
Dr. C. Whyne	Associate Professor
Dr. CS. Wright	Assistant Professor
Dr. A. Yee	Professor (Division Head)

### Publications

**Ahn H, Bailey CS, Rivers CS, Noonan VK, Tsai EC, Fourney DR, Attabib N, Kwon BK, Christie SD, Fehlings MG, Finkelstein JA, Hurlbert J, Townson A, Parent S, Drew B, Chen J, Dvorak MF.** Effect of older age on treatment decisions and outcomes among patients with traumatic spinal cord injury. *CMAJ*. 2015 Jul; doi: 10.1503/cmaj.150085.

**Axelrod TS.** Are locking constructs in distal femoral fractures always best? A prospective multi-centre randomized controlled trial comparing the Less Invasive Stabilization System (LISS) to the minimally invasive Dynamic Condylar Screw System (DCS). *J Orthop Trauma*. 2016 Jan;30(1):e1-6.

**Bakker R, Tomescu S, Brennehan E, Hangalur G, Laing A, Chandrashekar N.** The effect of sagittal plane mechanics on ACL strain during jump landing. *J Orthop Res*. 2016 Sep;34(9):1636-44.

**Bhandari M, Jeray KJ, Petrisor BA, Devereaux PH, Heels-Ansdell D, Schmeitsch EH, Anglen J, Della Rocca GJ, Jones C, Kreder HJ, Liew S, McKay P, Papp S, Sancheti P, Sprague S, Stone TB, Sun X, Tanner SL, Tornetta P 3rd, Tufescu T, Walter S, Guyatt GH, FLOW Investigators.** A Trial of Wound Irrigation in the Initial Management of Open Fracture Wounds. *N Engl J Med*. 2015 Dec;373(27):2629-41.

**Burgers PT, Hoogendoorn M, Van Woensel EA, Poolman RW, Bhandari M, Patka P, Van Lieshout EM, Jenkinson R, HEALTH Trial Investigators.** Total medical costs of treating femoral neck fracture patients with hemi or total hip arthroplasty: A cost analysis of a multicentre prospective study. *Osteoporosis Intl*. 2016 Jun;27(6):1999-2008.

**Burgers PT, Poolman RW, Van Bakel TM, Tuinebreijer WE, Zielinski SM, Bhandari M, Patka P, Van Lieshout EM, Kreder HJ, HEALTH and FAITH Investigators.** Reliability, validity and responsiveness of Western Ontario and McMaster Universities osteoarthritis index for elderly patients with a femoral neck fracture. *J Bone Joint Surg Am*. 2016 May;97(9):751-7.

**Dwyer T, Henry PD, Cholvisudhi P, Chan VW, Theodoropoulos JS, Brull R.** Neurological Complications Related to Elective Orthopedic Surgery: Part 1: Common Shoulder and Elbow Procedures. *Reg Anesth Pain Med*. 2015 Sep-Oct;40(5):431-42.

**Dwyer T, Slade Shantz J, Chahal J, Wasserstein D, Schachar R, Kulasegaram KM, Theodoropoulos J, Greben R and Ogilvie-Harris D.** Simulation of Anterior Cruciate Ligament Reconstruction in a Dry Model. *Am J Sports Med*. 2015 Dec;43(12):2997-3004.

**Dwyer T, Wadey V, Archibald D, Kraemer W, Shantz JS, Townley J, Ogilvie-Harris D, Petrera M, Ferguson P, Nousiainen M.** Cognitive and Psychomotor Entrustable Professional Activities: Can Simulators Help Assess Competency in Trainees? *Clin Orthop Relat Res*. 2016 Apr;474(4):926-34.

**Dwyer T, Wright S, Kulasegaram KM, Theodoropoulos J, Chahal J, Wasserstein D, Ringsted C, Hodges B and Ogilvie-Harris D.** How to set the bar in competency-based medical education: standard setting after an Objective Structured Clinical Examination (OSCE). *BMC Med Educ*. 2016 Jan 4;16(1):1.

**Dwyer T, Wright S, Kulasegaram KM, Theodoropoulos J, Chahal J, Wasserstein D, Ringsted C, Hodges B, Ogilvie-Harris D.** Competency-Based Medical Education: Can Both Junior Residents and Senior Residents Achieve Competence After a Sports Medicine Training Module? *J Bone Joint Surg Am*. 2015 Dec 2;97(23):1985-91.

**Ebrahimi H, Yee A, Whyne C.** Surgical process analysis identifies lack of connectivity between sequential fluoroscopic 2D alignment as a critical impediment in femoral intramedullary nailing. *Int J Comput Assist Radiol Surg*. 2016 Feb;11(2):297-305.

- Fehlings MG, Nater A, Tetreault LA, Kopjar B, Arnold PMA, Dekutoski MB, Finkelstein JA, Fisher CG, France JC, Gokaslan ZL, Rhines LD, Rose PS, Schuster JM, Vaccaro AR.** Survival and clinical outcomes in patients with metastatic epidural spinal cord compression: Results of the AOSpine prospective multi-centre study of 142 patients. *J Clin Oncol.* 2016 Jan 20;34(3):268–76.
- Frank T, Osterhoff G, Sprague S, Garibaldi A, Bhandari M, Slobogean GP, Kreder HJ, on behalf of the FAITH investigators.** The radiographic union score for hip (RUSH) identifies radiographic non-union of femoral neck fractures. *Clinical Orthopaedics and Related Research.* 2016 Jun;474(6):1396–404.
- Glynn A, Jenkinson RJ.** Total Hip Arthroplasty In Acetabular Fractures. *The Hip: Preservation, Replacement, and Revision.* Data Trace Publishing Company. 2015. Parvizi, Goyal, Cashman (eds).
- Henry P, McKee M.** Clavical Fractures. In: Court–Brown, C., McQueen, M., Swiontkowski, ME, Ring D, Friedman SM, Duckworth AD. *Musculoskeletal Trauma in the Elderly.* 9781482252026. CRC Press 2016.
- Henry P, Razmjou H, Dwyer T, Slade Shantz JA, Holtby R.** Relationship between probability of future shoulder arthroplasty and outcomes of arthroscopic debridement in patients with advanced osteoarthritis of the glenohumeral joint. *BMC Musculoskelet.* 2015 Oct 5; 16(1):280.
- Henry P, Wasserstein D, Park S, Dwyer T, Chahal J, Slobogean G, Schemitsch E.** Arthroscopic Repair for Chronic Massive Rotator Cuff Tears: A Systematic Review. *Arthroscopy.* 2015 Dec;31(12):2472–80.
- Janssen SJ, Teunis T, Guitton TG, Ring D, Jenkinson R, Science of Variation Group.** Do Surgeons Treat Their Patients Like They Would Treat Themselves? *Clin Orthop Relat Res.* 2015 Nov; 473(11): 3564–72.
- Jenkinson R, Canadian Orthopaedic Trauma Society.** Are Locking Constructs in Distal Femoral Fractures Always Best? A prospective multicentre randomized controlled trial comparing the Less Invasive Stabilization System (LISS) to the minimally invasive Dynamic Condylar Screw system (DCS). *J Orthop Trauma.* 2016 Jan; 30(1): e1–e6.
- Jenkinson R, FLOW investigators.** A Trial of Wound Irrigation in the Initial Management of Open Fracture Wounds. *New England Journal of Medicine.* 2015 Dec; 373(27):2629–41.
- Jenkinson RJ, Kreder HJ.** Principles of Internal Fixation of Fractures. *Encyclopedia of Trauma Care.* Springer. 2015; pp.1321–1340. Peter Papadakos, Marc Gestrung (eds).
- Jenkinson RJ.** Principles of Plate Fixation: Rib Fracture Applications. *Injuries to the Chest Wall: Diagnosis and Management.* 2015; pp 89–100. Springer International Publishing, Switzerland. MD McKee, EH Schemitsch (eds).
- Katchky RN, McLachlin SD, Wong EK, Finkelstein J, Kreder HJ, Whyne CM, Ryan N.** Thermal Cycling Can Extend Tool Life in Orthopaedic Operating Rooms. *J Orthop Res.* 2016 Mar;34(3):539–43.
- Khoshbin A, Sheth U, Ogilvie–Harris D, Mahomed N, Jenkinson R, Gandhi R, Wasserstein D.** The effect of patient, provider and surgical factors on survivorship of high tibial osteotomy to total knee arthroplasty: A population based study. *Knee Surg Sports Traumatol Arthrosc.* 2015 Nov 4. [Epub ahead of print].
- Kreder H, Henry P, Jenkinson R, Nousiainen M, Stephen D.** Management of Pelvic Fractures in the Adult: An update. *Current Progress in Orthopaedics:* 2016; Volume 2. Ashok Johari, Keith Luk and James Waddell (eds).
- Kreder HJ, Canadian Orthopaedic Trauma Society.** Are locking constructs in distal femoral fractures always best? A prospective multi-centre randomized controlled trial comparing the Less Invasive Stabilization System (LISS) to the minimally invasive Dynamic Condylar Screw System (DCS). *J Orthop Trauma.* 2016 Jan;30(1):e1–6.
- Kulasegaram K, Manzone JC, Ku C, Skye A, Wadey V, Wood NN.** Cause and Effect: Testing a Mechanism and Method for the Cognitive Integration of Basic Science. *Acad Med.* 2015 Nov;90(11 Suppl):S63–9.
- Leroux T, Chahal J, Wasserstein D, Verma NN, Romeo AA.** A Systematic Review and Meta-analysis Comparing Clinical Outcomes After Concurrent Rotator Cuff Repair and Long Head Biceps Tenodesis or Tenotomy. *Sports Health.* 2015 Jul; 7(4): 303–7.
- Leroux T, Khoshbin A, Nousiainen MT.** Training Distal Locking Screw Insertion Skills To Novice Surgical Trainees: A Comparison Between Fluoroscopic- and Electromagnetic-Guided Techniques. *Journal of Orthopaedic Trauma.* 2015 Oct; 29(10): 441–446.
- Leroux T, Ogilvie–Harris D, Veillette C, Chahal J, Dwyer T, Khoshbin A, Henry P, Mahomed N, Wasserstein D.** The Epidemiology of Primary Anterior Shoulder Dislocations in Patients Aged 10 to 16 Years. *Am J Sports Med.* 2015 Sep;43(9):2111–7.
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- Stephen DJG, Canadian Orthopaedic Trauma Society.** Are locking constructs in distal femoral fractures always best? A prospective multi-centre randomized controlled trial comparing the Less Invasive Stabilization System (LISS) to the minimally invasive Dynamic Condylar Screw System (DCS). *Journal of Orthopaedic Trauma.* 2016 Jan;30(1):e1-6.
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- Wong EK, Whyne CM, Singh D, Ford M.** A biomechanical assessment of kyphoplasty as a standalone treatment in a human cadaveric burst fracture model. *Spine.* 2015 Jul 15;40(14):E808-13.
- Yee AJ.** Reflections Abroad. *Spinal Columns, Canadian Spine Society.* 2015 Aug; 15(3): 13-17.
- Zielinski SM, Heetveld MJ, Bhandari M, Patka P, Van Lieshout EM, Wadey V, FAITH Trial Investigators.** Implant Removal After Internal Fixation of a Femoral Neck Fracture: Effects on Physical Functioning. *J Orthop Trauma.* 2015 Sep; 29(9):e285-92.

## Invited Visits

- Axelrod, Terry S.** AO Trauma Latin America, São Paulo, Brazil, September 19, 2016. Invited Speaker: Current Concept Distal Radius Fractures. 1) A/C Joint Dislocations: Fixation Tip. 2) Clavicle Mal-Unions and Non-Unions. 3) Pathophysiology of the Injury. 4) Surgical Anatomy and Imaging. 5) When and How to Treat Mal-Unions and Non-Unions. 6) Management of the Terrible Triad. 7) Complex Fractures of the Proximal Ulna. 8) Arthroplasty in Distal Humerus Fractures. 9) Proximal Humerus Fractures: When is Arthroplasty Recommended. 10) Proximal Humerus Fractures: When and how to treat Mal-union and Non-Union.
- Axelrod, Terry S.** AO Trauma North America, Marco Island, Florida, November 14, 2015. Invited Speaker: 1) Tips and Tricks for Orthopaedic Surgeons. 2) Isolated Radial Head and Olecranon Fractures: Lecture and Case based interactive Discussions
- Axelrod, Terry S.** AO Foundation, Davos, Switzerland, December 8-10, 2015. 1) Invited Lecturer: Management of Fractures of the Hand and Wrist Lecture. 2) Indirect Reduction of Distal Radius Fracture. 3) Management Principles of Articular Fractures.
- Axelrod, Terry S.** AOTrauma North America, Las Vegas, Nevada, February 13, 2016. 1) Invited Speaker: Anatomy of the Elbow and Surgical Exposures. 2) Lab Demonstrator: Advanced Cadaver Course for Clinical Fellows.
- Axelrod, Terry S.** Royal Society of Medicine Trauma Symposium, Royal Society of Medicine, London, United Kingdom, February 24, 2016. Keynote Speaker: 1) The compromised forearm. 2) Panel Discussion Upper Limb Trauma.



- Axelrod, Terry S.** British Society for Surgery of the Hand (BSSH), London, United Kingdom, April 28, 2016. 1) Distinguished Speaker: Lifelong Learning. 2) Plate and screw design and evolution.
- Cameron, John Charles.** Rocky Mountain Traumatological Society, Colorado, January 15, 2016. Invited Speaker: External Tibia Torsion & proximal Derotational Tibial Osteotomy in Patients with Cerebral Palsy and other Neuromuscular disorders.
- Cameron, John Charles.** 13th Meeting of the Combined Orthopaedic Associations, Cape Town, South Africa, April 11, 2016. Visiting Professor: Total Knee Replacements with Rotational Tibial Osteotomy.
- Finkelstein, Joel A.** Canadian Defense Lawyers, Toronto, Ontario, September 3, 2015. Invited Speaker: Anatomy of painful back – A primer to understanding neck and back injuries.
- Finkelstein, Joel A.** International Study of Quality of Life Annual Meeting, Vancouver, B.C., October 22, 2015. Presenter: Factors influencing health status and quality of life in Canadians living with spinal cord injury
- Finkelstein, Joel A.** Stryker Spine – Advanced Techniques in Spine Surgery, Miami, Florida, November 14, 2015. Invited Speaker: Less Invasive Technologies – Transcortical Screws with Lumbar Interbody Fusion.
- Finkelstein, Joel A.** Transport Safety and Injury Control, Qatar, Saudi Arabia, December 14, 2015. Invited Speaker: Soft tissue injuries to the cervical spine.
- Finkelstein, Joel A.** Canadian Spine Society Annual Meeting, Whistler, British Columbia, February 26, 2016. Invited Speaker: The impact of complications and opportunities to improve function, health and quality of life: Our best approach to cure spinal cord injury today.
- Finkelstein, Joel A.** Canadian Orthopaedic Association (COA), Quebec City, Quebec, June 2016. Invited Lecturer: 1) Tumour/spine: Advances in the management of primary and metastatic tumours of the axial skeleton. 2) Minimally invasive surgical approaches to spinal metastatic disease. 3) Multi-disciplinary approach to spinal and bone metastases: The Sunnybrook Bone Metastases Clinic.
- Jenkinson, Richard.** Orthopaedic Trauma Association, San Diego, California, October 10, 2015. Invited Speaker: ORIF versus Arthroplasty for common extremity fractures: Acetabular Fractures.
- Jenkinson, Richard.** Canadian Orthopaedic Resident Review Trauma Course, Toronto, Ontario, November 22, 2015. Invited Lecturer: Pelvic Ring fractures: top thing to know
- Jenkinson, Richard.** Department of Orthopaedics, Western University, London, Ontario, November 25, 2015. Visiting Professor: Management of Acetabular fractures in the Elderly.
- Jenkinson, Richard.** Orthopaedic Research Society, Orlando, Florida, March 6, 2016. Invited Lecturer: ORS Clinical Research Forum: Clinical trials from Early Stage to Large Datasets and Fundamental Challenges.
- Jenkinson, Richard.** International Society of Orthopaedic Centers (ISOC), London, United Kingdom, May 13, 2016. Presenter: Management Challenges of Prosthetic Joint Infections at Sunnybrook Health Sciences Center.
- Kreder, Hans Juergen.** AO Trauma Master Surgeon, Heilongjiang, China, September 21–24, 2015. Visiting Professor: 1) Subtrochanteric femoral fracture nailing using minimally invasive reduction and fixation techniques. 2) Principles of Managing Periprosthetic Femur Fractures. 3) Principles of Treating Complex Proximal Femoral Fractures. 4) Immediate Total Hip Replacement for Fragility Fractures of the Acetabulum. 5) Pterotrochanteri femoral fracture nailing using minimally invasive reduction and fixation techniques.
- Kreder, Hans Juergen.** AO Trauma: Fellows Cadaver Symposium, Las Vegas, Nevada, February 11, 2016. Invited Lecturer: Surgical Approaches to the Elbow and Forearm: The Dorsal Thompson Approach Advanced surgical exposures for trauma fellows.
- Marks, Paul.** International Skeletal Society, Edinburgh, United Kingdom, October 2015. Speaker: MR Imaging assessment of the Postoperative Meniscus of the Knee
- Nam, Diane.** AO Basic Principles Fracture Course, AO North America, Hollywood, United States, November 19, 2015. Invited Speaker: Radius and Ulna Forearm Fractures.
- Nousiainen, Markku.** Stryker Canada: Great Expectations Toronto Recon and Trauma Symposium, Toronto, Ontario, October 2, 2015. Invited Speaker: 1) When and How to Fix the Syndesmosis and Posterior Malleolus. 2) How to Improve Outcomes with Locked Plating. 3) Acute Infection: Evidence Based Principles of Diagnosis and Treatment. 4) Hip/Femur/Tibia session moderator of 6 talks relating to the management of traumatic injuries to the hip, femur and tibia.
- Nousiainen, Markku.** Entrustable Professional Activities and Milestones: New Strategies for Surgical Teaching in the Operating Room, American College of Surgery 2015 Clinical Congress, Chicago, Illinois, October 5, 2015. Invited Speaker: Faculty Development for Assessing Mastery of Technical Skills.
- Nousiainen, Markku.** International Conference on Residency Education, Vancouver, British Columbia, October 23, 2015. Invited Speaker: Am I a Competent Resident? 6-Year Outcomes of Competency-Based Training in the University of Toronto's Division of Orthopaedic Surgery.
- Nousiainen, Markku.** Ontario Orthopaedic Association, Toronto, Ontario, October 31, 2015. Invited Speaker: Am I a Competent Resident? 6-Year Outcomes of Competency-Based Training in the University of Toronto's Division of Orthopaedic Surgery.
- Nousiainen, Markku.** Association of American Medical Colleges Annual Meeting, Baltimore, Maryland, November 9, 2015. Invited Speaker: Am I a Competent Resident? 6-Year Outcomes of Competency-Based Training in the University of Toronto's Division of Orthopaedic Surgery.
- Nousiainen, Markku.** Advanced Principles of Fracture Management, AO North America, Hollywood, California, November 19–21, 2015. Invited Lecturer: 1) Pilon Fractures. 2) Femoral Neck Fractures: Techniques. 3) Femur: Current Controversies.
- Nousiainen, Markku.** Basic Principles of Fracture Management for Residents, AO North America, Charlotte, North Carolina, January 14, 2016. Invited Lecturer: 1) Surgical Reduction Techniques: Respecting the Behaviour of Bone. 2) Practical Exercise I: “Absolute Stability — Axial compression with plates; oblique fracture: lag through plate; olecranon fixation.

- Nousiainen, Markku.** Helfet Orthopaedic Trauma Fellowship Alumni Reunion, Ponte Vedra Beach, Florida, January 23, 2016. Invited Lecturer: My Best Case, My Worst Case.
- Nousiainen, Markku.** 13th Combined Meeting of Orthopaedic Societies (COMOC), Cape Town, South Africa, April 14, 2016. Chair: 1) Competency Based Medical Education: An Overview. 2) The Role of a Competency-Based Curriculum in Orthopaedic Training: Bridging the Gap between Theory and Clinical Practice.
- Nousiainen, Markku.** American Association of Clinical Pathologists, Oakland, California, June 14, 2016. Invited Speaker: Am I a Competent Resident? 7-Year Outcomes of Competency-Based Training in the University of Toronto's Division of Orthopaedic Surgery.
- Nousiainen, Markku.** Canadian Orthopaedic Association, Quebec City, Quebec, June 18, 2016. Chair: What Does the Royal College's "Competence by Design" Plan Mean for Orthopaedic Surgery Training in Canada?
- Nousiainen, Markku.** American Orthopaedic Association, Seattle, Washington, June 25, 2016. Invited Speaker: The Current State of Competency-Based Medical Education in Orthopaedic Surgery: Canada.
- Richards, Robin Richard.** 61st Annual General Meeting, South African Orthopaedic Association, Drakensberg, South Africa, September 1, 2015. Invited Speaker: 1) Perspectives on Trauma Management. 2) Case Presentations – Proximal Humeral Fractures.
- Richards, Robin Richard.** 75th Annual Scientific Meeting, Australian Orthopaedic Association, Brisbane, Australia, October 13, 2015. 1) Invited Speaker: Proximal Phalangeal Unicondylar Fractures. 2) Chair: Hand Session.
- Richards, Robin Richard.** 65th Annual Scientific Meeting, New Zealand Orthopaedic Association, Wellington, New Zealand, October 20, 2015. Invited Speaker: The Role of Shoulder Arthrodesis in 2015.
- Richards, Robin Richard.** Annual General Meeting, Ontario Orthopaedic Association, Toronto, Ontario, October 30, 2015. Invited Speaker: Transitional Recruitment: Who is watching out for our new surgeons?
- Richards, Robin Richard.** 4th Annual Shoulder Course, International Congress of Joint Reconstruction, Las Vegas, Nevada, November 6–7, 2015. 1) Facilitator: What Would You Do? – Case Based Presentations, Panel Points of Discussion, Cuff Tears. 2) Speaker: Proximal Humeral Fractures – Repair, Replace or Leave Alone. 3) Speaker: First Time Dislocator – Surgery or Rehabilitation. 4) Diagnosing Instability and its Direction.
- Richards, Robin Richard:** Canadian Orthopaedic Resident Review in Reconstructive Surgery, Mississauga, Ontario, January 21, 2016. 1) Invited Speaker: Elbow Reconstruction – Non-arthroplasty. 2) Co-moderator: Shoulder/Elbow Cases (15).
- Richards, Robin Richard.** Annual Meeting, American Academy of Orthopaedic Surgeons, Orlando, Florida, March 3, 2016. 1) Speaker: Glenoid inclination: Is it replicated in total shoulder arthroplasty? 2) Moderator: Shoulder and Elbow I: Treatment of Painful Shoulder Conditions (The Biceps Tendon and Frozen Shoulder)
- Richards, Robin Richard.** 13th Meeting of the Combined Orthopaedic Associations (COMOC), Capetown, South Africa, April 11, 2016. Invited Speaker: Medicolegal Session: The medical-legal environment: A Canadian perspective.
- Stephen, David J. G.** Ontario Orthopaedic Association, Toronto, Ontario, October 30, 2015. Invited Speaker: Ankle Debate: Early versus late weight bearing.
- Stephen, David J. G.** AO International Pelvic and Acetabular Fracture Management (with Human Anatomical Specimens), Seattle, Washington, May 2016. Speaker: 1) Posterior pelvic ring: SI joint dislocations and fracture dislocations; 2) Fixation of pelvic ring injuries: Faculty Panel Case discussion; 3) Sacroiliac fracture – dislocation – practical exercise; 4) Acetabulum: understanding fractures – parcours on radiology and classification. 5) Reduction and fixation via KL or "trochanteric flip" approach. 6) Transverse plus posterior wall and t-shaped fracture through Kocher Langenbeck practical exercise.
- Stephen, David J. G.** AO Trauma Course – Basic Principles of Fracture Management for Residents, San Diego, California, June 2016. Speaker: 1) Soft tissue injury and compartment syndrome. 2) Principles – Absolute stability. 3) Principles – Relative Stability, "Locked Plating – Biology, Mechanics". 4) Diaphyseal Management – Radiation Safety. 5) Introduction to Pilon Fractures; Upper Extremity Articular Fractures – Distal Radius; Special Fracture Problems – Acute Management of Pelvic Ring Injuries.
- Stephen, David J. G.** Canadian Orthopaedic Association (COA), Quebec City, Quebec, June 17, 2016. Panelist: Strategies for surgical approaches in open reduction internal fixation of pilon fractures.
- Wadey, Veronica Marie Rita.** St. John's Ambulance (New Territories & Kowloon Divisions), Hong Kong, November 23, 2015. Invited Speaker: Suturing Workshop.
- Whyne, Cari.** 21st Congress of the European Society of Biomechanics, Prague, Czech Republic, July 5, 2015. Speaker: Can CT image deblurring improve strain and failure load predictions at the proximal femur?
- Whyne, Cari.** SIOMMMS, Italian Society of Osteoporosis, Mineral Metabolism and Skeletal Diseases, Fellow Day, Bologna, Italy, November 11, 2015. Speaker: Can CT image deblurring improve finite element predictions at the proximal femur?
- Whyne, Cari.** 2016 Canadian Bone and Joint Conference, London, Ontario, April 9, 2016. Speaker: 1) Lithium enhances comminuted fracture healing in osteoporotic bone. 2) Introducing femoral antegrade IMN starting tool (FAST). 3) A virtual framework to evaluate osseous fixation pathways in the spine. 4) The impact of thermal cycling on biofilm growth on stainless steel and titanium plates.
- Yee, Albert.** Decisions in Spine Course, Calgary, Alberta, October 23, 2015. Speaker: Why Stay Current? Lessons Learnt — Transition to Practice.
- Yee, Albert.** Juravinski Cancer Centre, Hamilton, Ontario, April 7, 2016. Invited Speaker: The multidisciplinary bone metastasis clinic at Sunnybrook.

## Research and Investigations

Accelerated erasure of a selenium based x-ray imaging system. *Natural Sciences and Engineering Research Council of Canada (NSERC)*. Whyne C. (\$25,000.00 CAD Oct 2015 – Sept 2016).

Arthroscopic Repair vs. Latissimus Dorsi Tendon Transfer for Massive Rotator Cuff Tears: An Expertise-Based Randomized Controlled Trial. *ConMed Linvatec Research Grant*. Henry PDG, McKee M, Hall J, Whelan D, Nauth A, Holtby R, Dwyer T. (Oct 2015 – Oct 2016).

Assessing the performance of a CD200R1-specific agonistic aptamer in controlling inflammation in arthritis. *Sunnybrook Health Sciences Centre, Holland MSK collaborative research*. Nam D, Whyne C, Garipey J. (\$50,000.00 CAD Nov 2015 – Oct 2016).

“Bone Tape” Optimization of a novel method for reconstructing the craniomaxillofacial skeleton. *Canadian Institutes of Health Research (CIHR)*. Whyne C. (\$160,000.00 CAD Apr 2016 – Mar 2019).

Complications after gun-shot associated fracture fixation in a large population cohort. *OTA*. Kreder HJ, Pincus D. (\$18,500.00 CAD Jun 2016 – May 2017).

ED Ultrasonographic Regional Anaesthesia to Prevent Incident Delirium in Hip Fracture Patients (EDU\_RAPID). *CIHR*. Jenkinson R, Lee J. (\$740,000.00 CAD Jan 2016 – Jul 2020).

Leveraging electronic medical records and health administrative data to evaluate patient care and outcomes in arthritis in rheumatic diseases. *CIHR*. Tu K, Bernatsky S, Hawker G, Kreder HJ, Bombardier C, Butt D, Ivers N, Jaakimainen L, Jenkinson R, Kuriya B, Morris Q, Paterson M, Pope J, Ravi B, Thorne C, Tomlinson G, Wasserstein D, Widdifield J. (\$673,497.00 CAD Jul 2015 – Jun 2018).

Multimodal image analysis and modeling of thin bone structures in the human skeleton. *Natural Sciences & Engineering Research Council of Canada (NSERC)*. Whyne C. (\$170,000.00 CAD Apr 2016 – Mar 2021).

Preclinical treatment optimization of Nefopam and image in acceleration of early fracture healing. *Sunnybrook and Women’s College Health Sciences Centre, Holland MSK collaborative research fund*. Nam D, Whyne C, Stanisz G. (\$48,000.00 CAD Nov 2015 – Oct 2016).

Preventing Osteoarthritis after ACL reconstruction: Computational Approach. *University of Waterloo*. Wasserstein D, Chandrashekar N, Tomescu S, Acker S, Laing A. (\$10,000.00 CAD Aug 2015 – Sept 2016).

Smart Knee Brace for Knee Surgery Rehabilitation. *Ontario Centres for Excellence*. Tomescu S, Bakker R, Hangular G, Chandrashekar N. (\$20,000.00 CAD Sept 2015 – Nov 2016).

## Honours and Awards

**Nousiainen, Markku:** Dave Davis Award, Continuing Professional Development, Faculty of Medicine, University of Toronto. To recognize an outstanding completed research project in continuing education and professional development in the Faculty of Medicine. November 2015.

## Division of Plastic and Reconstructive Surgery

Dr. O.M. Antonyshyn	Professor
Dr. P. Binhammer	Assistant Professor (Division Head)
Dr. R. Cartotto	Associate Professor
Dr. J.A. Fialkov	Associate Professor
Dr. M.G. Jeschke	Professor
Dr. J.E. Lipa	Associate Professor
Dr. A.D. Rogers	Assistant Professor
Dr. S. Shahrokhi	Assistant Professor
Dr. L. Snell	Assistant Professor

## Publications

**Abdullahi A, Patsouris D, Costford S, Jeschke MG.** Hypermetabolic Response to Burn Injury. 2016 Mar; Chapter 1, pp. 227-245. *The Stress Response of Critical Illness: Metabolic and Hormonal Aspects*. Springer Switzerland. Preiser JC (eds).

**Amini-Nik S, Jeschke MG.** What’s new in Shock? *Shock*. 2016 Mar;45(3):239-40.

**Callum JL, Cserti-Gazdewich C, Cartotto R, Chapman M.** Red Blood Cell Transfusion in Trauma ICU. *Encyclopedia of Trauma Care*. Springer-Verlag Berlin Heidelberg 2015. Peter J. Papadakos and Mark L. Gestring (eds).



- Chung KK, Lundy JB, Rhie RY, Cartotto R, Henderson E, Pressman MA, Joe VC, Aden JK, Driscoll IR, Faucher LD, McDermid RC, Mlcak RP, Hickerson WL, Jeng JC.** A Survey of Mechanical Ventilator Practices Across Burn Centers in North America. *Journal of Burn Care and Research.* 2016 Mar; e131–e139.
- Diao L, Patsouris D, Sadri AR, Dai X, Amini-Nik S, Jeschke MG.** Alternative mechanism for white adipose tissue lipolysis after thermal injury. *Mol Med.* 2015 Dec 29.
- Dodiuk-Gad Roni P, Olteanu C, Jeschke M, Cartotto R, Fish J, Shear NH.** Treatment of Toxic Epidermal Necrolysis in North America. *Journal of American Academy of Dermatology.* 2015 Nov; 73(5):876–877.
- Finnerty CC, Herndon DN, Lee JO, Rodriguez NA, Al-Haj IH, Wurzer P, Calhoun BR, Jeschke MG.** Morbidity and mortality in severely burned children with *Clostridium difficile*-associated diarrhea. *Surgery.* 2016 Jun;159(6):1631–7.
- Jeschke MG, Patsouris D, Stanojcic M, Abdullahi A, Rehou S, Pinto R, Chen P, Burnett M, Amini-Nik S.** Pathophysiologic Response to Burns in the Elderly. *EBioMedicine.* 2015 Jul 31;2(10):1536–48.
- Jeschke MG, Pinto R, Costford SR, Amini-Nik S.** Threshold age and burn size associated with poor outcomes in the elderly after burn injury. *Burns.* 2016 Mar;42(2):276–81.
- Jeschke MG.** How should patients with burns be managed in the Intensive Care Unit? 2016; Chapter 2, pp. 556–562. *Evidence-Based Practice of Critical Care.* Elsevier United States Philadelphia. Deutschmann CS and Neligan PJ (eds).
- Mansfield E, Stergiou-Kita M, Cassidy JD, Bayley M, Mantis S, Kristman V, Kirsh B, Gomez M, Jeschke MG, Vartanian O, Moody J, Colantonio A.** Return-to-work challenges following a work-related mild TBI: The injured worker perspective. *Brain Inj.* 2015 Oct;29(11):1362–9.
- Martinez R, Rogers A, Numanoglu A, Rode H.** Fatal non-occlusive mesenteric ischemia and the use of propranolol in paediatric burns. *Burns.* 2016 Jun;42(4):e70–3.
- Mason SA, Nathens AB, Finnerty CC, Gamelli RL, Gibran NS, Arnoldo BD, Tompkins RG, Herndon DN, Jeschke MG; Inflammation and the Host Response to Injury Collaborative Research Program.** Hold the Pendulum: Rates of Acute Kidney Injury are Increased in Patients Who Receive Resuscitation Volumes Less than Predicted by the Parkland Equation. *Annals of Surgery.* 2016 Jun 17.
- Merchant N, Smith K, Jeschke MG.** An Ounce of Prevention Saves Tons of Lives: Infection in Burns. *Surg Infect (Larchmt).* 2015 Aug;16(4):380–7.
- Nicholas MN, Jeschke MG, Amini-Nik S.** Cellularized Bilayer Pullulan-gelatin Hydrogel for Skin Regeneration. *Tissue Eng Part A.* 2016 May;22(9–10):754–64.
- Pakdel A, Fialkov J, Whyne C.** High Resolution Bone Material Property Assignment Yields Robust Subject Specific Finite Element Models of Complex Thin Bone Structures. *Journal of Biomechanics.* 2016 Jun 14;49(9):1454–60.
- Patsouris D, Qi P, Abdullahi A, Stanojcic M, Chen P, Parousis A, Amini-Nik S, Jeschke MG.** Burn Induces Browning of the Subcutaneous White Adipose Tissue in Mice and Humans. *Cell Rep.* 2015 Nov 24; 13(8): 1538–1544.
- Rehou S, Mason S, Burnett M, Jeschke MG.** Burned Adults Develop Profound Glucose Intolerance. *Crit Care Med.* 2016 Jun;44(6):1059–66.
- Ricketts S, Gill HS, Fialkov JA, Matic DB, Antonyshyn OM.** Facial Fractures. *Plast Reconstr Surg.* 2016 Feb; 137(2): 424e–444e.
- Ricketts S, Regev E, Antonyshyn OM, Kiss A, Fialkov JA.** Use of the Derriford Appearance Scale 59 to assess patient-reported outcomes in secondary cleft surgery. *Plast Surg (Oakv).* 2016 Spring;24(1):27–31.
- Rode H, Rogers AD, Numanoglu A, et al.** A review of primary and secondary burn services in the Western Cape, South Africa. *S Afr Med J.* 2015; 105 (10): 853–857.
- Rogers A, Shahrokhi S.** Salvage of bilateral lower limb below knee amputations with split gastrocnemius and soleus muscle flaps. *Wound Healing Southern Africa.* 2016;9(1):41–44.
- Rogers AD, Jeschke MG.** Managing severe burn injuries: challenges and solutions in complex and chronic wound care. *Chronic Wound Care Management and Research.* Dove Medical Press. 2016, Jun; 3: 59–71.
- Roostaeian J, Yoon AP, Ordon S, Gold C, Crisera C, Festekjian J, Da Lio A, Lipa J.** Impact of prior tissue expander/implant on post-mastectomy free flap breast reconstruction. *Plastic and Reconstructive Surgery.* 2016 Apr;137(4):1083–91.
- Sadri AR, Jeschke MG, Amini-Nik S.** Advances in Liver Regeneration: Revisiting Hepatic Stem/Progenitor Cells and Their Origin. *Stem Cells Int.* 2016;2016:7920897.
- Sandhu SS, Dreckmann S, Binhammer PA.** Change in the collateral and accessory collateral ligament lengths of the proximal interphalangeal joint using cadaveric model three-dimensional laser scanning. *J Hand Surg Eur.* 2016 May;41(4):380–5.
- Spano S, Hanna, S, Li Z, Wood D, Cartotto R.** Does Bronchoscopic Evaluation of Inhalation Injury Severity Predict Outcome? *Journal of Burn Care & Research.* 2016 Jan–Feb;37(1):1–11.
- Teshima TL, Cheng H, Pakdel A, Kiss A, Fialkov JA.** Transverse Slicing of the Sixth–Seventh Costal Cartilaginous Junction: A Novel Technique to Prevent Warping in Nasal Surgery. *Journal of Craniofacial Surgery.* 2016 Jan; 27(1): e50–e55.
- Teshima TL, Patel V, Mainprize JG, Edwards G, Antonyshyn OM.** A three-dimensional statistical average skull: Application of biometric morphing in generating missing anatomy. *J Craniofac Surg.* 2015 Jul; 26(5): 1634–8.
- Tseng CY, Hayakawa T, Buchel EW, Lipa JE.** Stacked Flaps in Breast Reconstruction. 2015; pp. 592–607. *Operative Microsurgery.* McGraw-Hill Education, United States New York. Brian Belval and Brian Kearns (eds).

- Wanis M, Walker SA, Daneman N, Elligsen M, Palmay L, Simor A, Cartotto R.** Impact of Hospital Length of Stay on the Distribution of Gram negative Bacteria and Likelihood of Isolating a Resistant Organism in a Canadian Burn Centre. *Burns*. 2016 Feb;42(1):104-11.
- Widgerow AD, Rogers AD, Giaquinto Celliers M, et al.** WHASA consensus document on the management of acute burns. *Wound Healing Southern Africa*. 2015; 6 (1)S1-15.
- Xiu F, Diao L, Qi P, Catapano M, Jeschke MG.** Palmitate Differentially Regulates the Polarization of Differentiating and Differentiated Macrophages. *Immunology*. 2016 Jan;147(1):82-96.
- Ziolkowski N, Rogers AD, Jeschke MG.** Chemical burns to the perineum from podophyllin use. *Wound Healing Southern Africa*. 2016; 9(1).

## Invited Visits

- Antonyshyn, Oleh M.** AOCMF: Craniomaxillofacial Surgery: Orbital Approaches and Fundamentals, Las Vegas, Nevada, September 12, 2015. 1) Invited Lecturer: Problems in secondary orbital reconstruction. 2) Cadaver Dissection supervisor.
- Antonyshyn, Oleh M.** Atlantic Society of Plastic Surgeons Annual Meeting, Halifax, Nova Scotia, October 4, 2015. Distinguished Speaker: 1) Computer assisted design in craniofacial surgery. 2) Evolution in the approach to the collapsed nasal deformity.
- Antonyshyn, Oleh M.** Division of Plastic Surgery, University of Calgary, Calgary, Alberta, December 10-12, 2015. 1) Visiting Professor: Technology Transfer: From Surgical Innovation to Commercial Venture. 2) Judge, Resident Research Day. 3) Dale Birdsall Lecturer: Reconstructing Casualties of War: Canadian Humanitarian Efforts in Ukraine. 4) Visiting Professor: Resident problem cases. Review Clinical problem cases with residents.
- Antonyshyn, Oleh M.** Victor Malarek, W5, CTV, January 30, 2016. Speaker: Canadian Doctors on a Humanitarian Mission In Ukraine. A 1 hour special describing a Canadian Humanitarian Surgery Mission to Kyiv Ukraine.
- Antonyshyn, Oleh M.** Division of Plastic Surgery, University of Alberta, Edmonton, Alberta, April 1, 2016. Invited Lecturer: Reconstructing Casualties of War: Canadian Humanitarian Efforts in Ukraine.
- Antonyshyn, Oleh M.** AOCMF Computer Aided Maxillofacial Surgery Course, Tampa, Florida, April 22-24, 2016. Invited Lecturer: 1) Future Concepts: Patient Specific Cranial Vault Reconstruction. 2) Patient specific implants: Orbit/zygoma/cranial vault. 3) Computer Aided Midface Reconstruction.
- Binhammer, Paul.** AO North America, Toronto, Ontario, November 4, 2015. Moderator: Flexor Tendon Repairs and Transfers – Webinar.
- Cartotto, Robert.** American Association State of the Science and National Leadership Conference, Washington, D.C., February 22, 2016. Invited Speaker: Current State of the Science in Fluid Resuscitation.
- Cartotto, Robert.** Grand Rounds Lecture, Department of Surgery, UC Irvine School of Medicine, Irvine, California, March 31, 2016. Visiting Professor: The Conundrum of Crystalloids and Colloids in Acute Burn Resuscitation.
- Cartotto, Robert.** American Burn Association, 48th Annual Meeting, Las Vegas, Nevada, May 6, 2016. Invited Speaker and Course Director: 1) Controversies in Modern Burn Care: A Pro Con Debate Prone Positioning Should be Used in Burn Patients With ARDS (Con). 2) All That Blisteres Are Not Burns: SJS/TEN and Other Exfoliative Skin Conditions.
- Jeschke, Marc G.** American Burn Association, Washington, District of Columbia, February 2016. 1) Invited Speaker: Burns In Elderly. 2) Chair-Surgical Forum: Surgical Critical Care Medicine.
- Jeschke, Marc G.** SIG Resuscitation ABA, Las Vegas, Nevada, May 2016. Invited Speaker: 1) Resuscitation and AKI. 2) Burn sepsis: diagnosis, detection, pathology.
- Jeschke, Marc G.** Shock, Austin, Texas, June 2016. Invited Speaker: Outcomes in elderly after burn injury.
- Jeschke, Marc G.** Skin Research Group, Hamilton, Ontario, June 2016. Keynote Speaker: Stem cells in wound healing: not all good.
- Lipa, Joan Elizabeth.** Chicago Breast and Lymphedema Symposium, Chicago, Illinois, September 20, 2015. 1) Panelist: Making the Jump – Strategies to Successfully Start Nipple Sparing Mastectomies, Direct to Implant Reconstruction, and Using Shaped Implants. 2) Invited Speaker: Update on Breast Implant Associated ALCL. 3) Panelist: Through Thick and Thin – Breast Cancer Patients at the Extremes of BMI. 4) Invited Speaker: Reconstruction of the Obese Patient with Autologous Reconstruction.
- Lipa, Joan Elizabeth.** Barcelona Breast Meeting, Barcelona, Spain, March 17-18, 2016. 1) Discussion leader: Complications in mastopexy and breast reduction. 2) Invited Speaker: Complications in implant breast reconstruction: how to solve. 3) Invited Speaker: Crossfire debate: ADM in breast reconstruction.
- Shahrokhi, Shahriar.** Liege University Hospital in Belgium, Liège, Belgium, November 18, 2016. Invited Lecturer: Current Concepts in Burn Wound Infections (Webinar).
- Shahrokhi, Shahriar.** ABA 2016, Nevada, May 5-6, 2016. Speaker: 1) Assessing Primary Care Trainee Comfort In The Diagnosis And Management Of A Thermally Injured Patient. 2) The Influence Of Operative Time And Hypothermia In Burn Surgery.
- Shahrokhi, Shahriar.** 2016 Canadian Society of Plastic Surgeons Meeting, Ottawa, Ontario, June 14-18, 2016. Speaker: Avoidable transportations: A 7 year review of transfer to a regional burn centre.

## Research and Investigations

Acute Burn Resuscitation Prospective Multicentre Observational Trial (ABRUPT). *United States Army, Department of Defense, Military Burn Research Program (MBRP)*. Cartotto R, Greenhalgh DG. (\$2,000,000.00 USD Jun 2016 – Oct 2020).

“Bone Tape”: Optimization of a Novel Method for Reconstructing the Craniomaxillofacial Skeleton. *Canadian Institutes of Health Research. Whyne C, Fialkov J.* (\$160,000.00 CAD 2016 – 2017).

Hepatic ER stress contributes to morbidity and mortality after burn injury. *National Institutes of Health (NIH) (USA). Jeschke MG.* (Oct 2015 – Oct 2019).

Patient Education Resource Development: Nipple Reconstruction for Breast Reconstruction. *Sunnybrook Patient and Family Education Committee. Lipa JE, Snell L, McMillan C, Cameron L.* (\$1,000.00 CAD Dec 2015 – Mar 2016).

Print Resource Development: Nipple Reconstruction for Breast Reconstruction. *Sunnybrook Patient Family Education Committee. Lipa J, Snell L, McMillan C, Cameron L.* (\$1,000.00 CAD Dec 2015 – Mar 2016).

## Honours and Awards

**Antonyshyn, Oleh M:** Medal: Order of Merit, 3rd class, Government of Ukraine. The Order of Merit is awarded by the President of Ukraine to citizens of Ukraine or foreign countries for distinguished personal achievements economic, scientific, technological, military, cultural, public, and other spheres of social activities. Kyiv, Ukraine. February 2016.

**Cartotto, Robert:** Best Clinical Paper, Canadian Society of Plastic Surgeons. Ottawa, June 2016.

**Rogers, Alan David:** Best Presentation – Annual meeting of APRRSA (Association of Plastic, Reconstructive and Aesthetic Surgeons of South Africa). July 2015.

## Division of Urology

Dr. L.K. Carr	Associate Professor
Dr. S. Herschorn	Professor
Dr. L. Klotz	Professor
Dr. R.T. Kodama	Professor (Division Head)
Dr. R.K. Nam	Professor
Dr. V. Venkateswarran	Associate Professor

## Publications

**Almatar A, Wallis CJ, Herschorn S, Saskin R, Kulkarni GS, Kodama RT, Nam RK.** Effect of radical prostatectomy surgeon volume on complication rates from a large population-based cohort. *Can Urol Assoc J.* 2016 Jan; 10(1-2): 45-9.

**Bourke L, Boorjian SA, Briganti A, Klotz L, Mucci L, Resnick MJ, Rosario DJ, Skolarus TA, Penson DE.** Survivorship and improving quality of life in men with prostate cancer. *European Urology.* 2015 Sept; 68(3): 374-83.

**Bratt O, Folkvaljon Y, Loeb S, Klotz L, Egevad L, Stattin P.** Upper limit of cancer extent on biopsy defining very low-risk prostate cancer. *BJU Int.* 2015 Aug; 116(2): 213-9.

**Bruinsma SM, Bangma CH, Carroll PR, Leapman MS, Rannikko A, Petrides N, Weerakoon M, Bokhorst LP, Klotz LH, Roobol MJ; Movember GAP3 consortium.** Active surveillance for prostate cancer: a narrative review of clinical guidelines. *Nature Reviews Urology.* 2016 Mar; 13(3): 151-67.

**Iversen P, Damber JE, Malmberg A, Persson BE, Klotz L.** Degarelix monotherapy compared with luteinizing hormone-releasing hormone (LHRH) agonists plus anti-androgen flare protection in advanced prostate cancer: an analysis of two randomized controlled trials. *Therapeutic Advances in Urology.* 2016 Apr; 8(2): 75-82.

**Jain S, Loblaw A, Vesprini D, Zhang L, Kattan MW, Mamedov A, Jethava V, Sethukavalan P, Yu C, Klotz L.** Gleason Upgrading with Time in a Large Prostate Cancer Active Surveillance Cohort. *J Urol.* 2015 Jul; 194(1): 79-84.

**Klotz L.** Pharmacokinetic and pharmacodynamic profile of degarelix for prostate cancer. *Expert Opin Drug Metab Toxicol.* 2015 Oct; 11(11): 1795-1802.

**Mayer MJ, Klotz LH, Venkateswaran V.** Metformin and prostate cancer stem cells: a novel therapeutic target. *Prostate Cancer Prostatic Dis.* 2015 Dec; 18(4): 303-9.

**Nam RK, Amemiya Y, Benatar T, Wallis CJ, Stojcic-Bendavid J, Bacopulos S, Sherman C, Sugar L, Naeim M, Yang W, Zhang A, Klotz LH, Narod SA, Seth A.** Identification and Validation of a Five MicroRNA Signature Predictive of Prostate Cancer Recurrence and Metastasis: A Cohort Study. *J Cancer.* 2015 Sept; 6(11): 1160-71.



- Sasaki H, Klotz L, Sugar L, Kiss A, Venkateswaran V.** A combination of desmopressin and docetaxel inhibit cell proliferation and invasion mediated by urokinase-type plasminogen activator (uPA) in human prostate cancer cells. *Biochem Biophys Res Commun.* 2015 Aug 28;464(3):848-54.
- Shore ND, Chowdhury S, Villers A, Klotz L, Siemens DR, Phung D, van Os S, Hasabou N, Wang F, Bhattacharya S, Heidenreich A.** Efficacy and safety of enzalutamide versus bicalutamide for patients with metastatic prostate cancer (TERRAIN): a randomised, double-blind, phase 2 study. *Lancet Oncology.* 2016 Feb; 17(2): 153-63.
- van der Poel H, Klotz L, Andriole G, Azzouzi AR, Bjartell A, Cussenot O, Hamdy F, Graefen M, Palma P, Rivera AR, Stief CG.** Role of active surveillance and focal therapy in low- and intermediate-risk prostate cancers. *World J Urol.* 2015 Jul; 33(17): 907-16.
- van der Poel H, Klotz L, Stief CG.** Management of low- and intermediate-risk prostate cancer. *World J Urol.* 2015 Jul; 33(7): 905-6.
- Venier NA, Yamamoto T, Sugar LM, Adomat H, Fleshner NE, Klotz LH, Venkateswaran V.** Capsaicin reduces the metastatic burden in the transgenic adenocarcinoma of the mouse prostate model. *Prostate.* 2015 Jul; 75(12): 1300-11.
- Wallis CJ, Gordanpour A, Bendavid JS, Sugar L, Nam RK, Seth A.** MiR-182 Is Associated with Growth, Migration and Invasion in Prostate Cancer via Suppression of FOXO1. *J Cancer.* 2015 Oct; 6(12): 1295-305.
- Wallis CJ, Lo K, Lee Y, Krakowsky Y, Garbens A, Satkunasivam R, Herschorn S, Kodama RT, Cheung P, Narod SA, Nam RK.** Survival and cardiovascular events in men treated with testosterone replacement therapy: an intention-to-treat observational cohort study. *Lancet Diabetes Endocrinol.* 2016 Jun; 4(6): 498-506.
- Wallis CJ, Mahar A, Cheung P, Herschorn S, Klotz LH, Al-Matar A, Kulkarni GS, Lee Y, Kodama RT, Narod SA, Nam RK.** New Rates of Interventions to Manage Complications of Modern Prostate Cancer Treatment in Older Men. *European Urology.* 2016 May; 69(5): 933-41.
- Wallis CJ, Mahar AL, Choo R, Herschorn S, Kodama RT, Shah PS, Danjoux C, Narod SA, Nam RK.** Second malignancies after radiotherapy for prostate cancer: systematic review and meta-analysis. *BMJ.* 2016 Mar; 352: i851.
- Yamamoto T, Musunuru B, Vesprini D, Zhang L, Ghanem G, Loblaw A, Klotz L.** Metastatic Prostate Cancer in Men Initially Treated with Active Surveillance. *Journal of Urology.* 2016 May; 195(5): 1409-14.
- Zhou YG, Mohamadi RM, Poudineh M, Kermanshah L, Ahmed S, Safaei TS, Stojic J, Nam RK, Sargent EH, Kelley SO.** Interrogating Circulating Microsomes and Exosomes Using Metal Nanoparticles. *Small.* 2016 Feb 10;12(6):727-32.

## Invited Visits

**Nam, Robert K.** Society of International Urology/World Urologic Oncology Federation, Melbourne, Australia, October 15, 2015. Invited Lecturer: How Morbid is Radiation Compared to Surgery?

## Research and Investigations

Role of androgen deprivation therapy in cardiovascular disease - a longitudinal prostate cancer study (RADICAL PC). *Prostate Cancer Canada.* Pinthus J, Klotz L, Lukka H. (\$3,449,136.00 CAD Jul 2015 - Jun 2018).

Prostate Cancer UK: Risk Assessment Project. *Prostate Cancer United Kingdom.* Nam RK. (\$300,000.00 GBP Oct 2015 - Oct 2017).

qTAP, a novel platform for personalized medicine in cancer. *CQDM and CIHR.* Wrana J, Gingras AC, Yudin A, Zlotta A, Roughton A, Azad A. (\$750,000.00 CAD Jul 2015 - Dec 2017).

A Phase 3 Randomized, Placebo-controlled, Double-blind study of JNJ-56021927 (ARN-509) Plus ADT Versus ADT in Subjects with Low-volume Metastatic Hormone-sensitive Prostate Cancer. *Aragon Pharmaceuticals, Inc.* Fleshner N, Jewett M, Hamilton R, Kulkarni G, Finelli A, Zlotta A, Hansen A, Anthony J. (2016/02 - ).

## Honours and Awards

**Klotz, Laurence:** Richard Williams Award, American Urological Association, Urology Care Foundation. This award is presented to individuals for their outstanding and impactful research in the field of prostate cancer over the last 10 years. May 2016.

**Klotz, Laurence:** Best Poster of Conference Award, European School of Oncology Active Surveillance Conference. Milano, Italy. February 2016.

**Nam, Robert K:** Excellence in Clinical Teaching Award. Professional Association of Residents of Ontario (PARO). May 2016.

## Division of Vascular Surgery

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Dr. A. Dueck	Assistant Professor (Division Head)
Dr. D.S. Kucey	Assistant Professor
Dr. R. Maggisano	Associate Professor
Dr. G. Papia	Assistant Professor

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### Publications

Angarita FA, Dueck A, Azouz SM. Postoperative electrolyte management: Current practice patterns of surgeons and residents. *Surgery*. 2015 Jul;158(1):289-99.

Roy T, Forbes TL, Wright GA, Dueck AD. Burning bridges – Mechanisms and implications of endovascular failure in the treatment of peripheral arterial disease. *Journal of Endovascular Therapy*. 2015 Dec 28;22(6):874-80.

### Vascular Surgery Research Day





## Toronto East General Hospital / Michael Garron Hospital

**Carmine Simone,**  
*Surgeon-in-Chief*

We have had an exciting year. We are now the **Michael Garron Hospital (MGH)**, a proud member of the Toronto East Health Network. The Michael Garron Foundation has made history by making the largest donation ever in Canada to a single community hospital. Our Foundation received an unprecedented 50 million dollars. The re-naming of our hospital does not change our primary focus of being a community hospital providing exceptional care – instead it brings an added focus of research to our organization – and to our Department of Surgery. We are eager to start construction on our new patient-care tower and hospital campus scheduled to start in 2017. The new facility, coupled with the Michael Garron Foundation investment will ensure state-of-the-art equipment and patient – centered care programs which will enable us to set a new standard in surgical care and surgical education.

Our Department vision is simple – we want MGH to be the best place to work as a community surgeon, the best place for our loved ones and patients to receive surgical care and the best place for our surgical learners to train.

The Department of Surgery at MGH has 4 core divisions, a shared division of critical care and a pediatric dentistry program. This past year has been a very active year for all divisions. The Surgical Health Service completed over 11,700 operative cases in Fiscal Year (FY) 2015/16. We are on-track this FY to complete over 11,800 cases. The Department of Surgery accounts for the largest proportion of cases within the Surgical Health Service.

Along with the rest of the organization, we support patient safety initiatives such as falls prevention, skin ulcer prevention, ventilator-associated pneumonia prevention and blood borne central line-related infections. Our Department embodies the spirit of “*Setting a New Standard*” by focusing our scholarly activity to the following areas:

1. Quality integrated surgical care
2. Multidisciplinary oncology care
3. Teaching
4. Patient engagement

### Quality integrated surgical care:

**Dr. Mary-Anne Aarts** continues as the site lead for Best Practice in Surgery and Enhanced Recovery after Surgery (ERAS). **Dr. Aarts** and **Dr. Jamie Cyriac** have been instrumental in the development and growth of our bariatric surgery program. We are looking forward to developing stronger relationships with our community partners to bring post-operative and medical bariatric care closer to home for our patients.

Our Division of Orthopedic Surgery, a *major focus for our Department*, sets the standard for fiscally responsible quality patient-focused care. Our surgeons, anesthesiologists and nursing partners have been successful in dropping the wait times for surgery for hip fracture to one of the lowest levels in the city.



Under the leadership of **Dr. Peter Weiler**, our Division of Orthopedic Surgery has successfully reduced the length of stay (LOS) for post-operative patients by standardizing the surgical care, postoperative care plans and engaging the entire multiprofessional team.

**Dr. Hany Sawires** continues to lead the growth of our multidisciplinary Breast Diagnostic Clinic. The clinic focuses on breast cancer diagnosis and treatment however our clinic welcomes patients with any and all breast health concerns.

The Department of Surgery’s thoracic surgery team (**Dr. Robert Zeldin, Dr. Carmine Simone** and **Dr. Najib Safieddine**) and the Division of Respiriology have launched Toronto’s first multidisciplinary **Chest Centre** which will serve as a “one-stop shop” for patients with any thoracic or respiratory health problem.

We are expanding our telemedicine focus. We have been participating in Ontario Telehealth Network (OTN) clinics, which requires both patient and physician at OTN centres. We have successfully launched Personal Computer Video Conferencing (PCVC) which enable the physician to be anywhere while the patient still registers at OTN clinics. We have now embarked on SecureVideo that is completely secure 2-way video conferencing enabling patients and physicians to meet from anywhere.

We have re-located the endoscopy, bronchoscopy, cystoscopy and minor surgery suites to a large dedicated space creating a self-contained “surgicentre”. This was a combined effort from Departments of Surgery, Medicine, Anesthesia and Nursing and as a result we have been able to maximize efficiency in staff and equipment thereby driving down our costs and making a “one-stop shop” for patients in our community. Our efforts were recognized by the MOHLTC as “innovative and ground breaking”.

Our Department is committed to supporting multidisciplinary surgical care to our community and strives to expand our services to include areas of specialization not otherwise offered at MGH. Our partnership with Sunnybrook Health Sciences Centre continues to grow and will expand to include:

- Robotic Urology Surgery program;
- Cardiac Surgery as part of our comprehensive cardiology program;
- Radiation Oncology (credentialed through Department of Surgery) as part of our thoracic, breast, colon and prostate oncology programs.



## Multidisciplinary Surgical Oncology:

We continue to work with our partners at the Odette Cancer Centre to strengthen our partnership. *Our surgical oncology program continues to be a major focus for our Department.* We are proud to represent our organization at Cancer Care Ontario (CCO) and have representation on several quality improvement committees at CCO in areas such as Lung Cancer, Esophageal Cancer, Prostate Cancer, Colon Cancer and Palliative Care. MGH surgeons are participating in CCO working groups developing quality standards for Endoscopy (**Dr. C. Simone**), Lung Cancer Screening (**Dr. R. Zeldin**), Lung Cancer Treatment (**Dr. N. Safieddine, Dr. C. Simone**) and Prostate Biopsy (**Dr. R. Singal**).

The Thoracic Surgery program continues to be a major oncology focus for the organization. With strong collaborations with our Division of Medical Oncology and Respiriology, and our partnerships with Odette Cancer Centre, North York General Hospital, Royal Victoria Hospital and the University of Toronto Division of Thoracic Surgery. The MGH Thoracic Program is recognized as a shining example of collaborative, multidisciplinary, inter-hospital care providing exceptional service to one of the largest geographic areas in the province.

**Dr. Paul Bernick** and Dr. W. Appell have led the launch of our multi-disciplinary Colon Diagnostic Program – another example of collaboration between our Departments of Medicine and Surgery at MGH.

## Teaching:

The MGH Department of Surgery is still one of the most popular Departments for learners and is recognized within the University of Toronto as a leader in surgical education. The Department accepts medical students, surgical residents, family medicine residents, internal medicine residents, and surgical fellows from within Canada and internationally.

The Department teaching effectiveness score (TES) for residents continues to be above the city median TES. We have 10 of our

surgeons (48% of our Department) have TES above the University mean and 2 of our surgeons have the highest University TES within their respective Division. Of note, the Division of Orthopedics was the highest ranked division by orthopedic surgery trainees at the University of Toronto.

We have developed a core PGY3 general surgery rotation in Thoracic Surgery for University of Toronto learners. MGH Department of Anesthesia has established a core thoracic anesthesia rotation for PGY5 anesthesia residents that serves as an example of the collaborative spirit of our Health Service members.

**Dr. Atul Kesarwani** is involved in the Aesthetic Surgery Resident Teaching Program at Women's College Hospital. **Dr. Jamie Cyriac** sits on the Postgraduate Education Committee for General Surgery, **Dr. Paul Wong** sits on the Postgraduate Resident Committee for Orthopedics and **Dr. Najib Safieddine** sits on the Postgraduate Education Committee for Thoracic Surgery. **Dr. Brett Beber** is the Resident Wellness Director at the University of Toronto Division of Plastic Surgery. **Dr. Rajiv Singal** leads the fellowship in Endourology and GU MIS. **Dr. P. Bernick** leads the fellowship in Community General Surgery and **Dr. F. Mastrogiacomo** leads the fellowship in joint replacement open to international applicants.

## Patient engagement:

We have been working with mobile technology start-up companies to develop SMS alerts and mobile device educational material for patients undergoing lung surgery. Pre operatively patients get alerted to stop certain medications or to prepare overnight bags. Post operatively patients can access educational material and enter data into a digital logbook that alerts patients if self-reported symptoms indicate a complication. The data is captured and surgeons can collect data on patients returning to ER, calling the office for assistance or going to the family doctor for problems.

I am looking forward to working with all of our University colleagues and partners to continue to grow our program and our involvement in our community.

## Travelling Surgical Society Adegas Restaurant





## University Health Network

**Shaf Kehavjee,**  
*Surgeon-in-Chief*

### HEADS OF DIVISIONS

<b>Vivek Rao MD</b>	Cardiac Surgery
<b>Allan Okrainec MD</b>	General Surgery
<b>Michael Tymianski MD</b>	Neurosurgery
<b>Nizar Mahomed MD</b>	Orthopedic Surgery
<b>Stefan Hofer MD</b>	Plastic Surgery
<b>Tom Waddell MD</b>	Thoracic Surgery
<b>Tony Finelli MD</b>	Urology
<b>Thomas Lindsay MD</b>	Vascular Surgery

### DIVISION OF CARDIAC SURGERY

<b>M. Badiwala, MD</b>	<b>A. Ralph-Edwards, MD</b>
<b>R.J. Cusimano, MD</b>	<b>V. Rao, MD</b>
<b>T. David, MD</b>	<b>W. Stansfield MD</b>
<b>C. Feindel, MD</b>	<b>R. Weisel, MD</b>
<b>M. Ouzounian, MD</b>	<b>T. Yau, MD</b>

The Division of Cardiovascular Surgery at the Peter Munk Cardiac Center continues to enjoy strong growth in its clinical and academic programs. During the 2015-16 academic year, several new initiatives were advanced pairing clinical activity with academic interest.

Dr. R.J. Cusimano hosted the First International Cardiac Tumour Symposium which has now secured funding to be an annual event for the next five years. This unique multidisciplinary conference brings together experts from surgery, imaging, oncology and medicine to delineate best therapy for patients with these rare tumours. Dr. Cusimano was formally appointed as the Program Director for the University Division's residency training program and received the inaugural Stacey and David Cynamon Professorship in surgical education and innovation.

Dr. Terrence Yau spearheaded the NIH sponsored LVAD-Stem Cell trial evaluating myocardial recovery in patients being supported by a mechanical circulatory support device. Patients are randomized to placebo vs allogeneic stem cells at the time of VAD implant and Dr. Yau serves as the overall study PI overseeing 30 clinical sites in North America.

Dr. Maral Ouzounian is hosting the first Toronto Heritable Aortic Disease Conference in September 2016. This joint initiative with the Division of Vascular Surgery, Diagnostic Imaging and Genetics will bring together an international faculty to review current management of patients with familial aortopathies.

Dr. Vivek Rao is the incoming President of the Canadian Society of Cardiac Surgeons and has been nominated to the Council of the Canadian Cardiovascular Society.



The Division hosted several international leaders in Cardiac Surgery including Dr. William Cohn (Texas Heart Institute) and Dr. Michael Reardon (Houston Methodist) in addition to the Bigelow (Dr. John Elefteriades) and Heimbecker (Dr. Niv Ad) lecturers hosted by the University.

The above activities serve to further enhance the division's role as a national and international leader in academic cardiac surgery.

### DIVISION OF GENERAL SURGERY

<b>M. Cattral, MD</b>	<b>I. McGilvray, MD</b>
<b>T. Cil, MD</b>	<b>C. Moulton, MD</b>
<b>A. Chadi, MD</b>	<b>C. O'Brien, MD</b>
<b>S. Cleary, MD</b>	<b>A. Okrainec MD</b>
<b>K. Devon, MD</b>	<b>T. Penner, MD</b>
<b>J. Escallon, MD</b>	<b>F. Quereshy, MD</b>
<b>S. Gallinger, MD</b>	<b>M. Reedijk, MD</b>
<b>A. Ghanekar, MD</b>	<b>G. Sapisochin, MD</b>
<b>D. Grant, MD</b>	<b>M. Selzner, MD</b>
<b>P. Greig, MD</b>	<b>E. Shlomovitz, MD</b>
<b>T. Jackson MD</b>	<b>B. Taylor, MD</b>
<b>A. Wei, MD</b>	

The Division of General Surgery has had another very successful year with several notable accomplishments in the clinical arena, research and teaching.

A number of Faculty members were recipients of prestigious grants and awards. Mark Cattral received a CIHR grant to study Vascularized regenerative biomaterials for medical devices and cell therapy. Catherine O'Brien received a CIHR foundation grant to for her project titled Colorectal cancer stem cell plasticity: A novel therapeutic target.

Gonzalo Sapisochin was awarded the Rising Star Award at the International Liver Transplant Society Annual Meeting. Paul Greig delivered the Living Legend Lecture at the International Pancreatic Hepatobiliary Association Congress in Sao Paula in April, 2016. Faye Quereshy was awarded the Robert Mustard Mentorship Award from the Division of General Surgery, University of Toronto, and also received the Frank Mills Award for Excellence in Teaching by a Faculty Member. David Urbach's perspective on Pledging to Eliminate Low-Volume Surgery was published in the New England Journal of Medicine.

Several faculty members were appointed to important leadership positions. Alice Wei is the new President of the Ontario Association of General Surgeons. Timothy Jackson is the Secretary of the Ontario Association of General Surgeons. Fayez Quereshy was appointed as the Medical Director of the Toronto Western Operation Room. David Urbach has been named Surgeon-in-Chief at Women's College Hospital.

In the clinical arena, Dr. Eran Shlomovitz performed the first Peroral Endoscopic Myotomy (POEM) procedure for a patient with achalasia.

Visiting Professors to the Division included Dr. David Kooby, who served as the 2016 John Palmer Professor. Dr. Kooby, the Chief of Surgery at Emory University School of Medicine in Atlanta, Georgia, presented on Minimally Invasive Pancreatic Resection. Dr. Hartley Stern, the CEO of the Canadian Medical Protective Association served as the Crossgrove Lecturer for 2016. Dr. Stern presented on Medical/Surgical Careers are not Necessarily What You Think They Will Be, or What Was I Thinking When I Became the CEO of the CMPA? In September 2015, Professor O James Garden, the Regius Professor of Clinical Surgery at the University of Edinburgh delivered the Langer Lecture: Academic Surgery – Where will the next generation come from?

On June 8, 2016, General Surgery hosted the Traveling Surgical Society of Great Britain and Ireland for their inaugural visit to Canada. General Surgery designed a day of academic presentations and tours to showcase clinical and research advances in General, Vascular, Thoracic and Transplant Surgery at UHN.

## DIVISION OF NEUROSURGERY

**M. Bernstein, MD**  
**M. Fehlings, MD**  
**F. Gentili, MD**  
**M. Hodaie, MD**  
**S. Kalia, MD**  
**P. Kongkham, MD**  
**A. Lozano, MD**

**E. Massicotte, MD**  
**I. Radovanovic, MD**  
**M. Shamji, MD**  
**C. Tator, MD**  
**M. Tymianski, MD**  
**T. Valiante, MD**  
**G. Zadeh, MD**

Dr. Bernstein completed a clinical fellowship in Palliative Care. Dr. Fehlings continues to lead the CSM-Protect and the RISCIS-Protect trials of riluzole for spinal cord disorders, and has received grants from the Ontario Institute for Regenerative Medicine, Canadian Institute for Health Research (CIHR), the Krembil Foundation, the Rick Hansen Institute, the US Department of Defense and the Paralyzed Veterans of America. Dr. Gentili became the inaugural recipient of the Crean Hotson Chair in Skull Base Surgery. Dr. Hodaie was the scientific chair of the World Society of Stereotactic and Functional Neurosurgery meeting in September 2015 and was promoted to the position of full Professor in July 2016. Dr. Kalia was invited faculty at World Society for Stereotactic and Functional Neurosurgery Meeting and the World Movement Disorders Meeting. Dr. Kongkham was awarded a 2-year Innovations Grant from the Canadian Cancer Society Research Institute for his work studying DNA methylation and hydroxy-methylation in human gliomas. Dr. Lozano completed a clinical trial for deep brain stimulation in Alzheimer's Disease and a clinical trial of Focused Ultrasound for tremor. He was elected to the European Academy of Science, and received the Order of Canada. Dr. Massicotte is working with Altum Health to provide a new early assessment program for injured workers with mild traumatic brain injury or concussions. Dr. Radovanovic passed his 3-year Continuing Appointment Review (CAR). Dr. Shamji also passed his 3 year CAR, and received awards from the American Association of

Neurological Surgeons and the Congress of Neurological Surgeons for various clinical and basic science research projects related to spine-mediated neuropathic pain and was promoted to the research committee of AO Spine NA from which he was also awarded a grant to support his scientific work. Dr. Valiante received two neuromodulation related epilepsy grants for closed loop control of seizures— one CIHR and the other CHRP (CIHR-NSERC partnered), and was promoted to a scientist position at the Krembil Research Institute. Dr. Tymianski became the inaugural Harold & Esther Halpern Chair in Neurosurgical Stroke Research, Received a grant from HSFC, Began enrollment in the Phase 3 FRONTIER stroke trial, and obtained regulatory approval to begin the global, multi-center ESCAPE-NA-1 trial. Dr. Zadeh was elected as the Society of Neuro-oncology Secretary/Treasurer, Appointed as Board of Director North American Skull Base Society, Appointed at Tumor Section American Association of Neurosurgery Executive Committee, organized the first Scientific Meeting of International SNO-University of Toronto Meningioma Conference and have founded the International Meningioma Consortium. She has received four peer reviewed grants, x2 CIHR and x1 CCSRI and OCI Collaborative Grant.

## DIVISION OF ORTHOPEDIC SURGERY

**J. Chahal, MD**  
**R. Davey, MD**  
**R. Gandhi, MD**  
**J. Lau, MD**  
**S. Lewis, MD**  
**N. Mahomed, MD**

**W. Marshall, MD**  
**D. Ogilvie-Harris, MD**  
**R. Rampersaud, MD**  
**K. Syed, MD**  
**C. Veillette, MD**

The Orthopaedic Division had another very successful year. Dr. Ogilvie-Harris was promoted to Full Professor in the Department of Surgery at the University of Toronto. Dr. Steve Lewis was awarded the Wightman Berris Academy Award at the University of Toronto for Individual Teaching Performance. He also received the Whitecloud Award for Best Clinical Paper: International Meeting on Advanced Spinal Techniques (IMAST).

Dr. Raj Rampersaud led a 130 investigator national multi-centre team grant for a CIHR chronic disease SPOR grant on musculoskeletal pain. Dr. Rampersaud also co-chaired the Provincial QBP panel for low back pain. Dr. Jas Chahal in collaboration with the other members of the Division is continuing to lead the first North American clinical trial of autologous Mesenchymal Stem Cell's for the treatment of knee osteoarthritis. Dr. Mohit Kapoor in collaboration with Dr. Rampersaud discovered and patented two novel bio makers involved in the inflammatory process of spine osteoarthritis. Dr. Rajiv Gandhi completed the 2015 American British Canadian (ABC) travelling fellowship. This is the most prestigious Orthopaedic travelling fellowship in the world for mid-career academic orthopaedic surgeons. Dr. Johnny Lau hosted the DAF International Travelling Fellowship Site for 2015 and was the Co-Chair of the 12th Biennial Canadian Orthopaedic Foot and Ankle Symposium held April 14-16, 2016. There were approximately 275 attendees. It is the largest national foot and ankle meeting in Canada.

Overall, the division published over 100 peer reviewed publications and was successful in obtaining peer reviewed funding from numerous agencies including CIHR. Collectively the Division continued its fundraising efforts and to date the Campaign to Cure Arthritis has raised \$42 million.



## DIVISION OF PLASTIC SURGERY

J. Ahmad, MD  
 D. Anastakis, MD  
 H. Baltzer, MD  
 P. Bray, MD  
 B. Graham, MD

S. McCabe, MD  
 A. O'Neill, MD  
 H. Von Schroeder, MD  
 T. Zhong, MD  
 S. Hofer, MD

We are pleased to welcome Heidi Barnett, as the Research Consortium Manager for the CIHR Foundation Scheme Program Grant 2015 – 2020 to help with the Development of a National Quality Improvement Program in Postmastectomy Breast Reconstruction to Optimize the Patient-Centred Experience.

Dr.s Anne O'Neill and Dr. Toni Zhong were guest speakers at the Annual Breast Reconstruction Awareness (BRA) Day which was held on October 19, 2015 at the Centre for the Arts, St. Michael's College School. Dr. Hofer hosted the following Visiting Professors for Professors' Rounds Sept. 25, 2016 - Mr. Jian Farhadi (London, UK) & Dr. Jaume Masia (Barcelona, Spain), Dr. Howard Langstein (Rochester, NY) in April 2016 and Dr. Henricus Giele (Oxford, UK) in May 2016. Members of the UHN Division were active for National outreach programs in Dryden – Northern Ontario and internationally in the outer Char regions of Bangladesh.

Dr. Toni Zhong received Canadian Breast Cancer Foundation (CBCF) grant funding 2015 – 2018, was awarded with the CIHR New Investigator Award and the CIHR Foundation Scheme Program Grant 2015 – 2020. She is also a Co-investigator on another CIHR funded project 'Establishing donor-specific transplantation tolerance by harnessing DN regulatory T cells' and a CBCF funded project 'Including quality of life in breast cancer funding policy decisions: development of a preference-based measure from the BREAST-Q'.

Toni Zhong was awarded with the George Armstrong Peters Prize for 2016 – 2017, Department of Surgery, University of Toronto and was invited to join the Women in Microsurgery Working Group of the American Society of Reconstructive Microsurgeons (ASRM).

Dr. Marika Kuuskeri and Dr. Anastassi Halka successfully completed the Microsurgical Fellowship Program July 2015 – June 2016. Dr.s Tanya DeLyzer and Jennifer Klok successfully completed the Breast Reconstruction Surgery Fellowship Program in July 2015 – June 2016. Dr. Amanda Roberts has successfully completed her 2-year clinical and research fellowship in Breast Surgery with Dr. Toni Zhong supervising on her project entitled Using a Novel Quality Metric Approach to Examine the Healthcare Utilization of Post-Mastectomy Breast Reconstruction: A Population-based Study and Jelena Slump completed her UHN portion of her PhD project supervised by Dr.s Hofer and O'Neill and the Sarcoma team from Mount Sinai Hospital.

We have partnered with Dr. Paul Santerre and graduate student researchers from the Institute of Biomaterials and Biomedical Engineering and the Faculty of Dentistry at the University of Toronto who are coaching adipose tissue –derived stem cells to regenerate artificial blood vessels that may someday be used to treat patients suffering from coronary artery disease and peripheral vascular disease.

During the 2015 – 16 academic year, division members have published [18] peer-reviewed papers, presented [24] scientific papers at the following International Meetings: The American Society of Breast Surgeons in Dallas, Texas (3); The American Society for Reconstructive Microsurgery meeting in Scottsdale, Arizona (3); The American Society

of Plastic Surgeons/ Plastic Surgery Research Council joint annual meeting in New York City, NY (2). A total of [28] invited lectures were delivered at the following International Meetings: The European Society of Plastic and Aesthetic Surgery (EURAPS) Meeting in Edinburgh in May 2015; London Breast Meeting in London, UK in September 2015; The British Association of Plastic Reconstructive and Aesthetic Surgeons (BAPRAS) Winter Scientific Meeting in Birmingham, UK in Nov 2015; The MAYO Clinic, Scottsdale, Arizona; the 4rd International Breast Symposium in Dusseldorf in April 2016; the Scandinavian Plastic Society meeting in June 2016; and Modern Concepts in Breast Reconstructions and Aesthetics meeting in Coventry, UK in July 2016.

## DIVISION OF THORACIC SURGERY

M. Cypel, MD  
 K. Czarnecka, MD  
 G. Darling, MD  
 M. de Perrot, MD

A. Pierre, MD  
 T. Waddell, MD  
 K. Yasufuku, MD  
 S. Keshavjee, MD

The Division of Thoracic Surgery at UHN had a very good year in 2015-16. Dr. Kazuhiro Yasufuku was awarded the Gustav Killian Centenary Medal at the 19th World Congress of Bronchology and Interventional Pulmonology Meeting in Florence and the University of Toronto Faculty of Medicine, Ivan Silver Innovation Award at The Faculty of Medicine's 14th Annual Education Achievement Celebration. Dr. Shaf Keshavjee was awarded the Dr. Joel Cooper Award from the Canadian Society of Transplantation and appointed as Treasurer for the American Association of Thoracic Surgery. Dr. Marc De Perrot was appointed a member of the Mesothelioma Task Force for the International Association for the Study of Lung Cancer, recognizing his growing reputation in this field.

Dr. Cypel was a Co-Principal Investigator on a CIHR grant entitled "Supervised in vivo lung perfusion strategy for treatment of cancer metastases to the lungs. Real time monitoring of chemotherapy by on-site analytical platform" continuing on from his expertise in isolated perfusion of the lung. Dr. Yasufuku continues to grow his research program with funding from CCSRI for a project on "Ultra-minimally invasive multi-modal image guided therapeutics of lung cancer".

In celebrating Pearson Day, the event that annually recognizes the clinical and laboratory research completed by trainees in our Division, we welcomed Dr. Tommy D'Amico as our Visiting Professor and Keynote Speaker. Dr. Anna Bendzsak and Dr. Tatsuya Kato were awarded Best Clinical Research Paper and Best Basic Science Research Paper honours respectively.

Yet another highly successful Endobronchial Ultrasound Training Course was followed by the internationally attended Toronto Thoracic Refresher Course was carried out in June 2016. Speakers at the Refresher Course included the highly regarded Dr. James Bond, Dr. Walter Klepetko, Dr. John D. Mitchell as well as Dr. David C. Rice who participated in both the Refresher and EBUS courses. Dr. De Perrot organized a very well received course on thromboembolic lung disease for a variety of physicians including primary care.

Lastly, we are happy to note the cross appointment of Dr. Kasia Czarnecka to the Department of Surgery, and welcomed both Dr. Laura Donahoe, with a special interest in pulmonary thromboendarterectomy and mesothelioma and Dr. Jonathan Yeung, with a special interest in lung transplantation and esophageal surgery, as Clinical Assistants to the group at UHN.

## DIVISION OF UROLOGY

<b>D. Elterman, MD</b>	<b>M. Jewett, MD</b>
<b>A. Finelli, MD</b>	<b>G. Kulkarni, MD</b>
<b>N. Fleshner, MD</b>	<b>S. Radomski, MD</b>
<b>M. Hassouna, MD</b>	<b>M. Robinette, MD</b>
<b>R. Hamilton, MD</b>	<b>J. Trachtenberg, MD</b>

The Division Of Urology has had a productive academic year. We currently span 11 geographic full-time faculty spanned. We train over 24 students including 13 residents and 11 fellows. We had no new recruits in the Division of Urology after many recent years of active growth. The Division of Urology had a solid year in terms of peer-reviewed grant capture. The following faculty served as PI's or Co-PI's on peer-reviewed grants totaling over 3.5 million dollars. Dr Peter Schlegel was invited to be the Robson Professor for this academic year.

Dr. Tony Finelli became Division Chief at the UHN in November 2015. He continued his research in prostate and kidney cancer and was invited to lead an ASCO guideline in the management of Small Renal Masses. He continues to hold peer-reviewed grants from OICR, Prostate Cancer Canada and Movember. He was an invited speaker in Canada, USA, Australia, and Europe. Most notably he was invited to participate in a "Crossfire Debate" at the American Urological Association; particular sessions that are attended by more than 1000 registrants. Dr. Finelli continued in his role as the GU Cancer Lead at CCO.

Dr. Neil Fleshner continued his clinical and basic research in prostate cancer with many major peer-reviewed grants from CIHR, OICR, CPCRF, Canadian Cancer Society Research institute, Prostate Cancer Canada Research Foundation, Prostate Cancer Research Foundation and NIH. He was invited speaker at meetings in Canada, U.S, Israel, Australia and Europe. He continued as the holder of the Love Chair in Prostate Cancer Prevention at the Princess Margaret Hospital.

Dr. Michael Jewett continued his clinical and research work in many peer-reviewed funded projects in Uro-Oncology. The Funding is from CIHR, OICR, Princess Margaret Hospital Foundation, Kidney Foundation, NSERC and Pfizer

He continued as the Wyeth/CIHR Clinical Research Chair in Oncology. He was an invited speaker and/or visiting professor in North America, Europe, Middle East and Asia. He completed Inaugural Chairmanship of the Kidney Cancer Research Network of Canada (KCRNC) and was elected to the Board of the International Kidney Cancer Coalition (IKCC)

Dr. Michael Robinette continued as the major individual contributing to the Multi-organ transplant program at the UHN, specifically in kidney transplants.

Dr. John Trachtenberg transitioned out of his clinical practice but continued his work on focal therapy in Prostate cancer

Dr. Andrew Matthew, clinical psychologist, continued his work in outcomes after prostate cancer therapy. Dr Matthew has had a banner year with over 1.5 million in peer-reviewed funding in prostate cancer survivorship. He was an invited speaker in the Canada and Australia.

Dr Girish Kulkarni continued his excellent research as a junior investigator/surgeon scientist securing peer-reviewed grants from Canadian Urologic Association, CIHR and a salary support award from prostate Cancer Canada. He continues his epidemiological research in

bladder and prostate cancer. He was an invited speaker throughout Canada

Dr Robert Hamilton received numerous peer-reviewed grants from CCSRI, CUA and internal PMH funds. He continues his work on statins, SNP's and prostate cancer. He was an invited speaker throughout Canada. Rob continued as chair of International Movember GAP5 Testis cancer translational project

Dr. Alexandre Zlotta continued in his position as Associate Editor of European Urology, one of the premier journals in urology. He was invited speaker and/or Visiting Professor to Europe, Asia and South America. He continued his research with funding from Ontario Institute for Cancer Research, CIHR, Canadian Cancer Society Research Institute, and the Canadian Uro-oncology Group.

## DIVISION OF VASCULAR SURGERY

<b>J. Byrne, MD</b>	<b>G. Roche-Nagle, MD</b>
<b>T. Forbes, MD</b>	<b>B. Rubin, MD</b>
<b>W. Johnston, MD</b>	<b>D. Wooster, MD</b>
<b>T. Lindsay, MD</b>	<b>G. Oreopoulos, MD</b>
<b>G. Roche-Nagle, MD</b>	

The 2015/2016 academic year has continued to be productive for the Division of Vascular Surgery at University Health Network. A key focus of the Division's clinical practice are the multispecialty collaborations that offer areas of focused tertiary expertise in: arteriovenous malformations diagnosis and therapy; open and advanced minimally invasive EVAR therapy for all types of aortic aneurysms and aortic dissection; thoracic outlet syndrome. These programs continue to evolve resulting in increasing referral complexity, the interventions required for treatment and innovative approaches to therapy being employed. A key theme has been the transition to minimally invasive care for many of the conditions being treated. The collaborations with interventional radiology, cardiac surgery continue to evolve to enhance patient therapy.

During 2015/6 further efforts to provide vascular surgery coverage in Thunder Bay and the surrounding regions continues. Official funding of the program from the MOHLTC has yet to be realized however the Division continues to support this effort. It is anticipated that UHN Vascular Surgery Division will assist with recruitment of an additional vascular surgeon for this region this year.

Research activities of the Division continue to progress with both basic investigations in the lab of Drs Byrne and Robbins and engineering science with Dr Forbes, Dr Amon and Dr Mathew Doyle. The Division has continued involvement in major clinical trials (BEST CLI), stem cell therapy for CLI, as well as intervention trials with industry. The Division continues to work in conjunction with its partners at St. Michael's and Sunnybrook to fund international fellows for advanced clinical training as well as the support of the University Divisional Citywide rounds and K Wayne Johnston lecturer at the annual research day.

The Division members continue in diverse senior leadership roles: Dr Rubin (PMCC Program Medical Director, Chairman UHN Mt Sinai AMO), Dr Forbes (University Division Chair, Journal of Vascular Surgery Associate Editor) Dr Lindsay (Chair, Royal College Vascular Surgery Specialty Committee), Dr Oreopoulos (Vascular Surgery Program Director, Director Of Postgraduate Surgical Education UHN) and Dr Roche-Nagle (UHN Lead Radiation Safety and Vascular Quality Initiative).

# Cardiac Surgery

Dr. M Badiwala	Assistant Professor
Dr. R.J. Cusimano	Associate Professor
Dr. T. David	Professor
Dr. C. Feindel	Professor
Dr. R-K Li	Professor
Dr. M. Ouzounian	Assistant Professor
Dr. A. Ralph-Edwards	Lecturer
Dr. V. Rao	Professor (Division Head)
Dr. W. Stansfield	Assistant Professor
Dr. R. Weisel	Professor
Dr. T. Yau	Professor

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**Ouzounian M, Lindsay TF, Forbes TL.** Remote ischemic preconditioning and thoracoabdominal aneurysm repair: Can an arm save a cord (or legs)? *J Thorac Cardiovasc Surg.* 2016 Mar; 151(3):616-7.

**Ouzounian M, Rao V.** Transcatheter Aortic Valve Replacement: Should Anyone Die of Aortic Stenosis Anymore? *Can J Cardiol.* 2016 Jun; 32(6):722-3.

**Peterson MD, Mazine A, El-Hamamsy I, Manlhiot C, Ouzounian M, MacArthur RG, Wood JR, Bozinovski J, Apoo J, Moon MC, Boodhwani M, Hassan A, Verma S, Dagenais F, Chu MW; Canadian Thoracic Aortic Collaborative Investigators.** Knowledge, attitudes, and practice preferences of Canadian cardiac surgeons toward the management of acute type A aortic dissection. *J Thorac Cardiovasc Surg.* 15:1236-2.

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**Roufaiel M, El-Maklizi M, Williams J, Shikatani E, Li C, Lewis B, Robins L, Yun T, Lee J, Wieghofer P, Khattar R, Byrne J, Ouzounian M, Zavitz C, van Lookeren-Campagn M, Bauer C, Libby P, Husain M, Swirski F, Cheong C, Prinz M, Hilgendorf I, Randolph G, Epelman S, Gramolini AO, Cybulsky M, Rubin BB, Robbins CS.** The origin and maintenance of resident arterial macrophages. *Nat Immunol.* 2016 Feb; 17(2): 159-68.

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**Stansfield WE.** Multidisciplinary risk assessment and treatment: the evolution of triage. *Journal of Thoracic and Cardiovascular Surgery.* 2016 Apr; 151(4):e64-5.

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**Svensson LG, Gillinov AM, Weisel RD, Keshavjee S, Bacha EA, Moon MR, Cameron DE, Sugarbaker DJ, Adams DH, Gaynor JW, Coselli JS, Del Nido PJ, Jones D, Sundt TM, Cohn LH, Pomar JL, Lytle BW, Schaff HV.** The American Association for Thoracic Surgery Consensus Guidelines: Reasons and purpose. *J Thorac Cardiovasc Surg.* 2016 Jan; 151(4): 935-939.e1.

**Tourmousoglou C, Rao V, Lalos S, Dougenis D.** What is the best approach in a patient with a failed aortic bioprosthetic valve: transcatheter aortic valve replacement or redo aortic valve replacement? *Interactive Cardiovascular and Thoracic Surgery,* 2015.

**Weisel RD.** Should edge-to-edge fixation be routine? *Eur J Cardiothorac Surg.* 2016 May 4.

**Wu J, Song HF, Li SH, Guo J, Tsang K, Tumiati L, Butany J, Yau TM, Ouzounian M, Fu S, David TE, Weisel RD, Li RK.** Progressive Aortic Dilation Is Regulated by miR-17-Associated miRNAs. *J AM Coll Cardiol.* 2016 Jun; 67 (25):2965-77.

**Yan P, Gong H, Zhai X, Feng Y, Wu J, He S, Guo J, Wang X, Guo R, Xie J, Li R-K.** Decreasing CNPY2 Expression Diminishes Colorectal Tumor Growth and Development through Activation of p53 Pathway. *AM J Pathol.* 2016 Apr; 186(4): 1015-1024.

**Zhai XY, Yan P, Zhang J, Song HF, Yin WJ, Gong H, Li H, Wu J, Xie J, Li R-K.** Knockdown of SIRT6 enables human bone marrow mesenchymal stem cell senescence. *Rejuvenation Research.* 2016 Mar 14.

**Zhang YN, Xie BD, Sun L, Chen W, Jiang SL, Liu W, Bian F, Tian H, Li RK.** Phenotypic switching of vascular smooth muscle cells in the ‘normal region’ of aorta from atherosclerosis patients is regulated by miR-145. *J Cell Mol Med.* 2016 Feb; 20(6): 1049-1061.

## Invited Visits

**David, Tirone E.** European Association for Cardio-Thoracic Surgery, Windsor, United Kingdom, July 10, 2015. Invited Lecturer: The David Operation: a successful story “Advanced Aortic and Mitral Valve Reconstruction Surgery Course

**David, Tirone E.** Japanese Association for Thoracic Surgery – Postgraduate course, Kobe, Japan, October 18–19, 2015. 1) Invited Lecturer: Aortic valve sparing operations. 2) Keynote Speaker: A Journey to Excellence Guidelines on the making of an excellent cardiothoracic surgeon.

**David, Tirone E.** Southern Thoracic Surgical Association, Orlando, Florida, November 5, 2015. Keynote Speaker: Lifelong observations on surgery for heart valve disease.

**David, Tirone E.** American Association for Thoracic Surgery – Cardiovascular Valve Symposium, Sao Paulo, Brazil, November 18–21, 2015. Invited Speaker: 1) Evaluating a successful mitral valve repair in the operating room and beyond. 2) Principles of aortic valve repair. 3) Complex mitral scenario III. 4) Root enlargement, stentless xenografts, homografts or Ross for the small root? 5) Distinguished Speaker: A journey to excellence A personal view on what it takes to reach excellence in surgery

**Feindel, Christopher.** Canadian Cardiovascular Society, Toronto, Ontario, October 24, 2015. Invited Speaker: Find and Land Your Surgical Dream Job Advice for Trainees searching for surgery employment.

**Li, Ren-Ke.** International Academy of Cardiovascular Sciences, Omaha, Nebraska, September 11, 2015. Invited Speaker: Cardiac rejuvenation: A new frontier in the management of heart failure.

**Li, Ren-Ke.** American Heart Association, Orlando, Florida, November 10, 2015. Invited Speaker: Targeted Gene Therapy for Cardiac Regeneration.

**Li, Ren-Ke.** John A. Burns School of Medicine, University of Manoa, Honolulu, Hawaii, February 18, 2016. Invited Speaker: Cardiac rejuvenation to prevent heart failure in aged patient.

**Li, Ren-Ke.** Delhi Pharmaceutical Sciences and Research University, New Delhi, India, April 22, 2016. Invited Speaker: Novel Conductive Biomaterial to Prevent Cardiac Arrhythmia.

**Li, Ren-Ke.** Shandong Provincial Hospital, Jinan, Shandong, China, May 23, 2016. Invited Speaker: Stem Cell Therapy after Myocardial Infarction.

**Ouzounian, Maral.** Canadian Cardiovascular Congress, Toronto, Ontario, October 24, 2015. Presenter: 1) CCS/CSCS/CSVS: Thoracic Aortic Disease Intervention Guidelines. 2) Find and land your dream surgical job.

**Ouzounian, Maral.** Endoluminaries National Symposium, Toronto, Ontario, October 30, 2015. Presenter: Hybrid repair of Type A dissections.

**Ouzounian, Maral.** Yale Aortic Institute, New Haven, Connecticut, December 1, 2015. Presenter: Tearing it up: (R)evolution in aortic dissection care.

**Weisel, Richard.** China Heart Congress, Fuwai Hospital, Beijing, China, August 7, 2015. Invited Speaker: Surgical treatment of ischemic mitral regurgitation.

**Weisel, Richard.** John W Kirklin Lecture, Mayo Clinic, Rochester, Minnesota, September 18, 2015. Presenter: Academic Cardiac surgery: Prospects for the Future.

**Weisel, Richard.** European Association for Cardiothoracic Surgery, Amsterdam, Netherlands, October 6, 2015. Invited Speaker: Improving outcomes for ischemic mitral regurgitation.

**Weisel, Richard.** 36th Annual Cardiothoracic Surgery Symposium, Long Beach, California, February 26, 2016. Invited Speaker: Improving Outcomes in Cardiac Surgery: The CTSN Experience.

**Yau, Terrence M.** 21st Century Cardiothoracic Surgical Society (21CCSS), Cancun, Mexico, February 13, 2016. Invited Speaker: Clinical trials in cardiac stem cell therapy: A tale of two trials.

**Yau, Terrence M.** Libin Cardiovascular Institute, Calgary, Alberta, June 2, 2016. Invited Speaker: How to do translational research: Setting up a clinical cardiac stem cell therapy program.

## Research and Investigations

A historical review of medical treatment and care of the adult with congenital heart disease. *Ryerson University. Lapum J, Fredericks S, Yau T.* (\$6,000.00 2016).

A new growth factor, CNPY2, to induce angiogenesis after cardiac ischemia. *Heart and Stroke Foundation of Canada (HSFC). Li RK.* (\$268,103.00 CAD 2015/072018/07).

Ex vivo organ transplant protection and repair: Ex Vivo Heart Perfusion Studies. *Canadian National Transplant Research Program. Badiwala M, Vivek R.* (\$37,350.00 CAD Mar 2015 – Mar 2016).

HCM iPSC-CM studies. *PMCC. Billia P, Weisel R, Li R-K, Keller G, Rakowski H.* (\$200,000.00 CAD Jan 2016 – Dec 2017).

Heart Regeneration with Pluripotent Stem Cell-Derived Ventricular Myocytes. *Ontario Institute for Regenerative Medicine. Laflamme M, Li RK, Keller G, Wright G, Yau T, Zandstra P.* (\$400,000.00 CAD Dec 2015 – Jun 2016).

PET MR Studies. *PMCC. Ouzounian M, Weisel R, Li R-K, Robbins C, Byrne J, Billia P.* (\$132,000.00 CAD Mar 2016 – Feb 2018).

Pre-clinical Development of a Novel Umbilical Cord Perivascular Cell-Based Therapy to Prevent Heart Failure. *Ontario Research Fund (ORF). Li RK.* (\$1,253,767.00 CAD Aug 2015 – Nov 2018).

Rejuvenation of aged cells and recipients to enhance cardiac regeneration and prevent progressive heart failure. *Canadian Institute of Health Research (CIHR). Li RK, Weisel RD.* (\$2,495,382.00 CAD Jul 2015 – Jul 2022).

The roles for C-type natriuretic peptide in valve disease. *Heart and Stroke Foundation of Canada (HSFC). Yau TM, Simmons C.* (\$288,867.00 CAD Jul 2015 – Jul 2018).



## Honours and Awards

**David, Tirone E:** Scientific Achievement Award, American Association for Thoracic Surgery. 2015 – 2016.

**David, Tirone E:** Japanese Association for Cardiothoracic Surgery. Honorary member. October 2015.

**Li, Ren-Ke:** Fellowship, International Academy of Cardiovascular Sciences. 2015/10

**Ouzounian, Maral:** Adult Cardiac Surgery Poster Competition, 1st prize, American Association for Thoracic Surgery. 2015.

**Rao, Vivek:** Honorary Fellow, Indian Association of Cardiothoracic Surgeons.

## Division of General Surgery

<b>Dr. M.S. Cattral</b>	Professor	<b>Dr. C-A.E. Moulton</b>	Associate Professor
<b>Dr. S.P. Cleary</b>	Associate Professor	<b>Dr. C. O'Brien</b>	Assistant Professor
<b>Dr. A.M. Easson</b>	Assistant Professor	<b>Dr. A. Okrainec</b>	Associate Professor (Division Head)
<b>Dr. J. Escallon</b>	Associate Professor	<b>Dr. T. Penner</b>	Assistant Professor
<b>Dr. A. Gagliardi</b>	Associate Professor	<b>Dr. F.A. Quereshy</b>	Assistant Professor
<b>Dr. S. Gallinger</b>	Professor	<b>Dr. M. Reedijk</b>	Associate Professor
<b>Dr. A. Ghanekar</b>	Assistant Professor	<b>Dr. L.E. Rotstein</b>	Professor
<b>Dr. D. Grant</b>	Professor	<b>Dr. G. Sapisochin</b>	Assistant Professor
<b>Dr. P. Greig</b>	Professor	<b>Dr. M. Selzner</b>	Associate Professor
<b>Dr. T. Jackson</b>	Assistant Professor	<b>Dr. E. Shlomovitz</b>	Assistant Professor
<b>Dr. W.L. Leong</b>	Assistant Professor	<b>Dr. D.R. Urbach</b>	Professor
<b>Dr. D. McCready</b>	Professor	<b>Dr. A. Wei</b>	Associate Professor
<b>Dr. I. McGilvray</b>	Associate Professor		

## Publications

**Alhaizaey A, Ghanekar A, Oreopoulos G.** Inferior vena cava stent grafting closure of a high-flow portacaval shunt. *Journal of Vascular Surgery: Venous and Lymphatic Disorders.* 2016 Jan; 4(1): 88-91.

**Andrei AZ, Hall A, Smith AL, Bascunana C, Malina A, Connor A, Altinel-Omeroglu G, Huang S, Pelletier J, Huntsman D, Gallinger S, Omeroglu A, Metrakos P, Zogopoulos G.** Increased in vitro and in vivo sensitivity of BRCA2-associated pancreatic cancer to the poly(ADP-ribose) polymerase-1/2 inhibitor BMN 673. *Cancer Lett.* 2015 Aug; 364(1):8-16.

**Aravinthan AD, Doyle AC, Issachar A, Dib M, Peretz D, Cattral MS, Ghanekar A, McGilvray ID, Selzner M, Greig PD, Grant DR, Selzner N, Lilly LB, Renner EL.** First-degree living-related donor liver transplantation in autoimmune liver diseases. *American Journal of Transplantation.* 2016 Apr 18.

**Aronson M, Gallinger S, Cohen Z, Cohen S, Dvir R, Elhasid R, Baris HN, Kariv R, Druker H, Chan H, Ling SC, Kortan P, Holter S, Semotiuk K, Malkin D, Farah R, Sayad A, Heald B, Kalady MF, Penney LS, Rideout AL, Rashid M, Hasadsri L, Pichurin P, Riegert-Johnson D, Campbell B, Bakry D, Al-Rimawi H, Alharbi QK, Alharbi M, Shamvil A, Tabori U, Durno C.** Gastrointestinal Findings in the Largest Series of Patients With Hereditary Biallelic Mismatch Repair Deficiency Syndrome: Report from the International Consortium. *Am J Gastroenterol.* 2016 Jan; 111(2): 275-284.

**Aronson M, Holter S, Semotiuk K, Winter L, Pollett A, Gallinger S, Cohen Z, Gryfe R.** DNA Mismatch Repair Status Predicts Need for Future Colorectal Surgery for Metachronous Neoplasms in Young Individuals Undergoing Colorectal Cancer Resection. *Dis Colon Rectum.* 2015 Jul; 58(7): 645-652.

**Auspitz M, Cleghorn MC, Tse A, Sockalingam S, Quereshy FA, Okrainec A, Jackson TD.** Understanding Quality Issues in Your Surgical Department: Comparing the ACS NSQIP With Traditional Morbidity and Mortality Conferences in a Canadian Academic Hospital. *J Surg Educ.* 2015 Nov; 72(6): 1272-7.

**Avitzur Y, Wang JY, de Silva NT, Burghardt KM, DeAngelis M, Grant D, Ng VL, Jones N, Wales PW.** Impact of Intestinal Rehabilitation Program and Its Innovative Therapies on the Outcome of Intestinal Transplant Candidates. *J Pediatr Gastroenterol Nutr.* 2015 Jul; 61(1):18-23.

**Azin A, Jimenez MC, Cleghorn MC, Jackson TD, Okrainec A, Rossos PG, Quereshy FA.** Discrepancy between gastroenterologists' and general surgeons' perspectives on repeat endoscopy in colorectal cancer. *Can J Surg.* 2016 Feb; 59(1): 29-34.

**Barbas A, Ghanekar A.** *The Transplant Patient. A Guide to the Care of the Critically Ill Surgical Patient.* 2015. Ali J (Ed).

**Barry A, Knox JJ, Wei AC, Dawson LA.** Can Stereotactic Body Radiotherapy Effectively Treat Hepatocellular Carcinoma? *J Clin Oncol.* 2016 Feb; 34(5): 404-8.

**Bartczak A, Chruscinski A, Mendicino M, Liu H, Zhang J, He W, Amir AZ, Nguyen A, Khattar R, Sadozai H, Lobe CG, Adeyi O, Phillips MJ, Zhang L, Gorczyński RM, Grant D, Levy GA.** Overexpression of Fibrinogen-Like Protein 2 Promotes Tolerance in a Fully Mismatched Murine Model of Heart Transplantation. *Am J Transplant.* 2016 Jun; 16(6):1739-50.

- Byrne J, Saleh F, Ambrosini L, Quereshy F, Jackson TD, Okrainec A.** Laparoscopic versus open surgical management of adhesive small bowel obstruction: a comparison of outcomes. *Surg Endosc.* 2015 Sept; 29(9): 2525–32.
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- Chau R, Jenkins MA, Buchanan DD, Ait Ouakrim D, Giles GG, Casey G, Gallinger S, Haile RW, Le Marchand L, Newcomb PA, Lindor NM, Hopper JL, Win AK.** Determining the familial risk distribution of colorectal cancer: a data mining approach. *Fam Cancer.* 2016 Apr; 15(2): 241–251.
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- Gagliardi AR, Soong D, Gallinger S.** Identifying Factors Influencing Pancreatic Cancer Management to Inform Quality Improvement Efforts and Future Research: A Scoping Systematic Review. *Pancreas*. 2016 Feb; 45(2): 161-166.
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- Zhang M, Bingham K, Kantarovich K, Laidlaw J, Urbach D, Sockalingam S, Ho R.** Inter-professional delirium education and care: a qualitative feasibility study of implementing a delirium Smartphone application. *BMC Med Inform Decis Mak*. 2016 Apr; 16:50.

**Zilbert NR, Murnaghan ML, Gallinger S, Regehr G, Moulton CA.** Taking a Chance or Playing It Safe: Reframing Risk Assessment Within the Surgeon's Comfort Zone. *Ann Surg.* 2015 Aug; 262(2): 253-259.

## Invited Visits

**Easson, Alexandra M.** SciX Conference, Providence, Rhode Island, Oct 2, 2015. Invited Speaker: ALA-Induced Fluorescence Imaging of Breast Cancer Margins Detects Tumors Otherwise Occult to the Surgeon Collaborator on project.

**Easson, Alexandra M.** Committee on Surgical Palliative Care Skills Course- Palliative Surgical Care, American College of Surgeons, Chicago, Illinois, Oct 6-7, 2015. 1) Invited Speaker: How to handle patients and families who want "everything done". 2) Facilitator: Surgical Palliative Care Interest Group Research Presentations and Networking Meeting.

**Gagliardi AR.** Guidelines International Network Annual Conference, Amsterdam, NL, Oct 2015. Speaker: 1) Do guidelines offer implementation advice to target users?: A systematic review of guideline applicability. 2) Trends in guideline implementation: A scoping systematic review. 3) Developing a checklist for guideline implementation planning: review and synthesis of guideline development and implementation advice.

**Gagliardi AR.** Canadian Association of Health Services and Policy Research Annual Meeting, Toronto, Ontario, May 11, 2016. Invited Plenary: Characterizing the evidence on how to foster and achieve integrated knowledge translation: The current state of play.

**Gallinger, Steven.** The 12th Annual Meeting of the International Society of Gastrointestinal Oncology, Arlington, Virginia, October 23, 2015. Invited Speaker: Management of Gastric Outlet Obstruction

**Gallinger, Steven.** The Canadian Cancer Research Conference, Montreal, Quebec, November 8, 2015. The Latest in GI Cancer Genetics.

**Gallinger, Steven.** World Pancreatic Cancer Coalition (WPCC), Glasgow, United Kingdom, June 9, 2016. Invited Speaker: Germline Predisposition to Pancreatic Cancer

**Ghanekar, Anand.** Kingston General Hospital / Hotel Dieu Hospital, Kingston, Ontario, July 20, 2015. Invited Speaker: Living donor kidney transplantation.

**Greig, Paul.** Congress of the Japanese Society of Transplant, Kumamoto, Japan, October 1, 2015. Distinguished Speaker: 1) Transplant Fellowships in North America. 2) Living Donor Liver Transplant in North America.

**Greig, Paul.** SSO-HPB Fellows' Symposium, Houston, Texas, November 11, 2015. Invited Lecturer: Surgery in Cirrhotics.

**Greig, Paul.** AHPBA & IHPBA Congress, Sao Paulo, Brazil, April 22, 2016. Distinguished Speaker: The History of Liver Transplantation - "Living Legend".

**Jackson, Timothy.** American College of Surgeons - National Surgical Quality Improvement Program Annual Conference, Chicago, Illinois, July 26, 2015. Invited Speaker: NSQIP in Ontario: Developing the Ontario Surgical Quality Improvement Network.

**Jackson, Timothy.** Canadian Association of General Surgeons: CABPS Symposium, Quebec City, Quebec, September 17-19, 2015. Invited Speaker: 1) Pre-operative Weight Loss and Bariatric Surgery: An Absolute? 2) Putting Quality Improvement in the Hands of Surgeons. 3) Using Endoscopy to Improve Enteral Access.

**Jackson, Timothy.** Royal College of Physicians and Surgeons of Canada - Canadian Surgical Quality Coalition, Ottawa, Ontario, October 13, 2015. Invited Speaker: Developing the Ontario Surgical Quality Improvement Network.

**Jackson, Timothy.** University of Manitoba, Surgical Grand Rounds, Winnipeg, Manitoba, October 21, 2015. Visiting Professor: Data Driven Surgical Quality Improvement.

**Jackson, Timothy.** Society of Gastrointestinal and Endoscopic Surgeons - Resident Course, London, Ontario, October 22, 2015. Visiting Professor: Introduction to Bariatric Surgery.

**Jackson, Timothy.** Ontario Surgical Quality Conference, Toronto, Ontario, November 6, 2015. Invited Speaker: Moving Forward with Surgical Quality in Ontario.

**Jackson, Timothy.** Ontario Association of General Surgeons, Toronto, Ontario, November 7, 2015. Invited Speaker: Update on NSQIP.

**Jackson, Timothy.** Operating Room Nurses Association of Ontario, 14th Biennial Conference, Toronto, Ontario, April 29, 2016. Keynote Speaker: Using Data to Drive Quality Improvement in Surgery.

**Jackson, Timothy.** Canadian Association of Health Services and Policy Research, Toronto, Ontario, May 12, 2016. Invited Speaker : Using a Surgical Quality Improvement Plan to Bridge the Gap Between Data and Improvement.

**McGilvray, Ian.** FALP Oncology Conference, Región Metropolitana de Santiago, Chile, November 2015. Invited Speaker: 1) Vascular reconstruction in pancreas surgery. 2) Serious complications in HPB surgery. 3) Breakfast Conference: Case presentations, Liver and Pancreas Oncology.

**McGilvray, Ian.** IHPBA, São Paulo, Brazil, April 2016. Keynote Speaker: The evolution of video-based surgical education.

**Moulton, Carol-anne Evelyn.** Cross-Canadian Collaboration in Surgery, Vancouver, British Columbia, 2015. Keynote Speaker: Peeking behind the curtain: Surgical judgment beyond cognition.

**Moulton, Carol-anne Evelyn.** Swedish Surgical Society Conference, Örebro län, Sweden, August 19, 2015. Invited Speaker: Peeking Behind the Curtain: Surgical Judgment Beyond Cognition.

**Moulton, Carol-anne Evelyn.** Canadian Society for Aesthetic Plastic Surgery (CSAPS), Montreal, Quebec, September 19, 2015. Invited Lecturer: Peeking Behind the Curtain: Surgical Judgment Beyond Cognition.

- Moulton, Carol-anne Evelyn.** 11th Annual Harvey H. Sigman Lecture in Surgical Education, Jewish General Hospital, Montreal, Quebec, October 21–22, 2015. Invited Speaker: 1) Dual Identities of Surgeon and Learner: A Paradox of Expertise. 2) The Vulnerability of the Surgeon in Shining Armour.
- Moulton, Carol-anne Evelyn.** Laval University, Quebec City, Quebec, November 6, 2015. Invited Speaker: La perception des complications par le chirurgien (the perception of complication by the surgeon).
- Moulton, Carol-anne Evelyn.** Society of Thoracic Surgeons Annual Meeting, Phoenix, Arizona, January 26, 2016. Invited Speaker: When Bad Things Happen: Reactions to Recovery from Adverse Events.
- Moulton, Carol-anne Evelyn.** University of Washington Centre for Leadership & Innovation in Medical Education (CLIME), Seattle, Washington, March 8–9, 2016. Invited Speaker: 1) Slowing Down When You Should: Key to Expert Performance. 2) Peeking Behind the Curtain: Surgical Judgment Beyond Cognition.
- Moulton, Carol-anne Evelyn.** British Columbia Surgical Society, Shuswap Lake, British Columbia, May 6, 2016. Keynote Speaker: Slowing down when you should: Key to performance.
- Quereshy, Fayez A.** National Congress Advances in Surgery, Colombia, August 2015. Invited Speaker: 1) Robotic surgery in rectal cancer. 2) Quality care in colorectal cancer. 3) Minimally invasive surgery for rectal cancer.
- Selzner, Markus.** Canadian Transplant Fellows Symposium, Toronto, Ontario, September 2015. Invited Speaker: Organ Preservation (CNTRP).
- Selzner, Markus.** American Society of Transplant Surgeons Annual State of the Art Winter Symposium, Miami, Florida, January 16, 2016. Invited Speaker: Normothermic Ex Vivo Liver Perfusion (NEVLP) Using Steen Solution as Preservation Technique for Liver Transplantation- First Clinical Results.
- Selzner, Markus.** 2016 Cutting Edge of Transplantation Meeting, Phoenix, Arizona, February 25, 2016. Invited Speaker: The Organ Repair Center: Optimal Strategies to Repair Organs Ex Vivo.
- Selzner, Markus.** Liver Transplantation Society Korea, Seoul, Korea, May 5, 2016. Presenter: Normothermic Ex Vivo Liver Perfusion (NEVLP) Using Steen Solution as Preservation Technique for Liver Transplantation- First Clinical Results.
- Selzner, Markus.** American Transplant Congress, Boston, Massachusetts, June 12, 2016. Presenter: Normothermic Ex Vivo Liver Perfusion (NEVLP) Using Steen Solution as Preservation Technique- First Clinical Results.
- Urbach, David Robert.** Canadian Assembly of General Surgeons, Quebec City, Quebec, September 19, 2015. Invited Speaker: 1) Disparities in Canadian Surgery: Volume–Outcome Relationships. 2) Surgical Safety Checklist Debate. 3) Advanced Endoscopy: Patient Preparation.
- Urbach, David Robert.** The Caribbean Society of Endoscopic Surgeons, Christ Church, Barbados, October 23–24, 2015. Invited Speaker: 1) Gynaecologists/Urologists/Rectal Surgeons OR Pelvic Surgeons. 2) Training for adrenalectomy. 3) An Update on Specialist Endoscopic Urology. 4) Splenectomy.

## Research and Investigations

- 2018 Normothermic Ex Vivo Kidney Perfusion for the Storage, Assessment and Repair of Marginal Kidney Grafts. *Canadian National Transplant Research Program (CNTRP); Canadian Institute of Health Research (CIHR).* Selzner M. (\$70,000.00 CAD 2016).
- A Combined Nanotechnology and Surgical Strategy to Treating Liver Cancer. *NSERC; Canadian Institute of Health Research (CIHR).* McGilvray ID, Selzner M, Chan W, Zilman A. (\$927,000.00 CAD Apr 2016 – Apr 2019).
- A systematic review, modified Delphi survey and Canadian consensus conference on contralateral prophylactic mastectomy for non-high risk women with unilateral early stage breast cancer or DCIS. *Canadian Institutes of Health Research.* Wright FC, Baxter NN, Covelli A, Gagliardi AR, Look Hong N, Quan ML. (\$10,000.00 Apr 2016 – Mar 2017).
- Balancing innovation and safety: national multi-sector meeting on post-market surveillance of medical devices. *Canadian Institutes of Health Research.* Gagliardi AR, Urbach DR, Ducey A, Lehoux P, Ross S, Tribovich P. (\$10,000.00 2016–2017).
- Biliary disease in a dish: modeling biliary disease using stem cell derived cholangiocytes. *Canadian Liver Foundation.* Ghanekar A, Kamath B. (\$120,000.00 CAD Sept 2015 – Aug 2017).
- Centre for islet research and therapeutics. *Canadian Foundation of Innovation.* Gaisano H, Cattral M. (\$1,992,258.00 CAD Jul 2015– Jul 2022).
- Clinical Outcomes, Health-related Quality of Life and Costs Following Bariatric Surgery: An Analysis of the Ontario Bariatric Registry Linked to Ontario Administrative Databases. *Canadian Institutes of Health Research (CIHR).* Tarride JE, Anvari M, O'Reilly D, Paterson M, Pullenayegum E, Taylor V, Urbach D, Xie F. (\$149,106.00 CAD Oct 2015 – Sept 2017).
- Comparative Effectiveness of Metabolic and Bariatric Surgery using Patient Reported Outcome Measures (PROMs). *Patient-Centered Outcomes Research Institute* Jackson T, Hutter MM. (\$3,016,507.00 USD Nov 2015 – Oct 2019).
- Comprehensive evaluation of somatic alterations in hepatocellular carcinoma. *Canadian Liver Foundation.* Cleary S, Ghanekar A, Pugh T. (\$120,000.00 CAD Sept 2015 – Aug 2017).
- Ex vivo kidney perfusion and ex vivo liver perfusion studies. *Medicine by Design, Ontario Institute for Regenerative Medicine.* Selzner M. (\$50,000.00 CAD 2016).
- Genome-Wide Association Study (GWAS) in Hepatocellular Carcinoma. *National Cancer Institute (USA).* Cleary SP, Hassan M. (\$3,361,045.00 USD Apr 2015 – Apr 2020).
- miRNA122 inhibition during ex-vivo liver perfusion to prevent hepatitis C reinfection after liver transplantation. *Canadian Liver Foundation.* Selzner M, Feld J. (\$120,000.00 CAD Sept 2015 – Aug 2017).



Moving knowledge into action for more effective practice, programs and policy: A research program focusing on integrated knowledge translation. *Canadian Institutes of Health Research. Graham I, Pan-Canadian Team (Gagliardi AR member). (\$3,318,872.00 Jul 2015 – Jun 2022).*

Normothermic Ex Vivo Liver Perfusion for the Assessment and Repair of Marginal Liver Grafts. Private Philanthropic Donation, TGTW Hospital Foundations. Selzner M. (\$66,630.00 2015).

Rocuronium and Midazolam Metabolomics for the Assessment of Liver Grafts During Subnormothermic Ex Vivo Liver Perfusion. *Canadian National Transplant Research Program (CNTRP); Canadian Institute of Health Research (CIHR). Selzner M. (\$25,000.00 CAD 2016 – 2018).*

The Canadian F.I.G.H.T. (Fluorescence Image-Guided Help in Treating) Breast Cancer Surgical Trial. *Canadian Institutes of Health Research (CIHR). DaCosta R, Leong WL, Easson A, Done S, McCready D, Groot G, Helyer L, Holloway C, Krahn M, Meiers P, Mew D, Rosen C, Simpson J, Tenenbein P. (\$100,000.00 CAD Jul 2015 – Jul 2016).*

Translational development of novel drugs targeting tumor vulnerabilities. *Stand Up To Cancer (SU2C) Canada, the Canadian Breast Cancer Foundation (CBCF), and the Ontario Institute for Cancer Research (OICR). Mak T, Aparicio S, Park M, Pritchard K, Gelmon Seymour L, den Brok W, Scrivens Z, Mellon R, Bedard K, Philippe; Haibe-Kains B, Cescon D, Done S, Kamel-Reid S, Bray M, Reedijk M, Gorrini C, Benard F, Marra M, Shah S, Martin M, Chia S, Huang S, Ragoussis I, Rayson D, Hilton J, Dent S, Dancy JE, Ferrario C, Webster M, Ellard S. (\$9,000,000.00 CAD Jun 2016 – May 2020).*

Video-based Transplant Patient Education – Kidney Transplantation. *Toronto Transplant Institute. McGilvray I, Ghanekar A, Fung A, Musci I, Greig P (\$12,500.00 CAD Mar 2015 – Feb 2016).*

## Honours and Awards

**Easson, Alexandra M.** Best poster in original research. Canadian Association of Physician Assistants. A proposed physician assistant-led discharge program to reduce emergency department visits within 30 days of discharge after surgical admission. October 2015.

**Ghanekar, Anand:** Top 3 Basic Science Abstract – 2015. Canadian Society of Transplantation Annual Scientific Meeting. October 2015.

**Greig, Paul:** Sarita Verma Award for Advocacy and Mentorship in Postgraduate Medicine, University of Toronto. February 2016.

**Greig, Paul:** Living Legend Award, Americas Hepato-Pancreatico-Biliary Association (AHPBA). April 2016.

**McCready, David:** Best Surgical Oncology Lecture Award, General Surgical Oncology Program, University of Toronto. Postgraduate MD Annual Award to the best lecturer in the General Surgical Oncology Program in the Department of Surgery, University of Toronto. 2015.

**Selzner, Markus:** 2015 CST Research Excellence Award, Canadian Society of Transplantation. July 2015.

## Division of Neurosurgery

Dr. M.A. Bernstein	Professor
Dr. K.D. Davis	Professor
Dr. J. Eubanks	Professor
Dr. M. Fehlings	Professor
Dr. F. Gentili	Professor
Dr. C. Hamani	Associate Professor
Dr. M. Hodaie	Professor
Dr. W. Hutchison	Associate Professor
Dr. S.K. Kalia	Assistant Professor
Dr. P. Kongkham	Assistant Professor
Dr. A.M. Lozano	Professor
Dr. E. Massicotte	Associate Professor
Dr. I. Radovanovic	Assistant Professor
Dr. M. Shamji	Assistant Professor
Dr. C.H. Tator	Professor
Dr. M. Tymianski	Professor (Division Head)
Dr. T. Valiante	Associate Professor
Dr. A. Velumian	Assistant Professor
Dr. G. Zadeh	Associate Professor

## Publications

**Abhinav K, Yeh FC, Mansouri A, Zadeh G, Fernandez-Miranda JC.** High-definition fiber tractography for the evaluation of perilesional white matter tracts in high-grade glioma surgery. *Neuro Oncol.* 2015 Sept; 17(9): 1199-209.

**Agnihotri S, Zadeh G.** Metabolic reprogramming in glioblastoma: The influence of cancer metabolism on epigenetics and unanswered questions. *Neuro Oncol.* 2016 Feb; 18(2): 160-72.

- Ahn H, Bailey CS, Rivers CS, Noonan VK, Tsai EC, Fournery DR, Attabib N, Kwon BK, Christie SD, Fehlings MG, Finkelstein J, Hurlbert RJ, Townson A, Parent S, Drew B, Chen J, Dvorak MF.** Effect of older age on treatment decisions and outcomes among patients with traumatic spinal cord injury. *CMAJ*. 2015 Sep 8;187(12):873-80.
- Ahuja CS, Martin AR, Fehlings M.** Recent advances in managing a spinal cord injury secondary to trauma. *F1000Res*. 2016 May 27;5.
- Ailon T, Smith JS, Shaffrey CI, Lenke LG, Brodke D, Harrop JS, Fehlings M, Ames CP.** Degenerative Spinal Deformity. *Neurosurgery*. 2015 Oct;77 Suppl 4:S75-91.
- Alobaid A, Torlakovic E, Kongkham P.** Primary Central Nervous System Immunomodulatory Therapy-Induced Lymphoproliferative Disorder in a Patient with Ulcerative Colitis: A Case Report and Review of the Literature. *World Neurosurgery*. 2015; 84(6): 2074.
- Alotaibi N, Ibrahim G, Jalal H, Perez-Ordóñez B, Hodaie M, Kalia SK.** Subdural Collection as Initial Presentation of Granulomatosis with Polyangiitis. *JAMA Neurol*. 2016 May 1;73(5):602-3.
- Alotaibi NM, Badhiwala JH, Nassiri F, Guha D, Ibrahim GM, Shamji MF, Lozano AM.** The Current Use of Social Media in Neurosurgery. *World Neurosurg*. 2016 Apr;88:619-624.e7.
- Alotaibi NM, Guha D, Fallah A, Aldakkan A, Nassiri F, Badhiwala JH, Ibrahim GM, Shamji MF, Macdonald RL, Lozano AM.** Social Media Metrics and Bibliometric Profiles of Neurosurgical Departments and Journals: Is There a Relationship? *World Neurosurg*. 2016 Jun;90:574-579.e7.
- Alotaibi NM, Nassiri F, Badhiwala JH, Witw CD, Ibrahim GM, Macdonald RL, Lozano AM.** The Most Cited Works in Aneurysmal Subarachnoid Hemorrhage: A Bibliometric Analysis of the 100 Most Cited Articles. *World Neurosurg*. 2016 May;89:587-592.e6.
- Amaral C, Antonio B, Oliveira MG, Hamani C, Guinsburg R, Covolan L.** Early postnatal nociceptive stimulation results in deficits of spatial memory in male rats. *Neurobiol Learn Mem*. 2015 Nov;125:120-5.
- Amelot A, Balabaud L, Choi D, Fox Z, Crockard HA, Albert T, Arts CM, Buchowski JM, Bunger C, Chung CK, Coppes MH, Depreitere B, Fehlings MG, Harrop J, Kawahara N, Kim ES, Lee CS, Leung Y, Liu ZJ, Martin-Benloch JA, Massicotte EM, Meyer B, Oner FC, Peul W, Qureshi N, Tokuhashi Y, Tomita K, Ulbricht C, Verlaan JJ, Wang M, Mazel C.** Surgery for metastatic spine tumors in the elderly. Advanced age is not a contraindication to surgery! *Spine J*. 2015 Jul 31. pii: S1529-9430(15)01148-1.
- Ames CP, Smith JS, Eastlack R, Blaskiewicz DJ, Shaffrey CI, Schwab F, Bess S, Kim HJ, Mundis GM Jr, Klineberg E, Gupta M, O'Brien M, Hostin R, Scheer JK, Protosaltis TS, Fu KM, Hart R, Albert TJ, Riew KD, Fehlings MG, Deviren V, Lafage V.** Reliability assessment of a novel cervical spine deformity classification system. *J Neurosurg Spine*. 2015 Dec;23(6):673-83.
- Amorim BO, Covolan L, Ferreira E, Brito JG, Nunes DP, de Moraes DG, Nobrega JN, Rodrigues AM, de Almeida AC, Hamani C.** Deep brain stimulation induces antiapoptotic and anti-inflammatory effects in epileptic rats. *J Neuroinflammation*. 2015 Sep 4;12:162.
- Anderson KK, Tetreault L, Shamji MF, Singh A, Vukar RR, Harrop JS, Fehlings MG, Vaccaro AR, Hilibrand AS, Arnold PM.** Optimal Timing of Surgical Decompression for Acute Traumatic Central Cord Syndrome: A Systematic Review of the Literature. *Neurosurgery*. 2015 Oct;77 Suppl 4:S15-32.
- Badner A, Vawda R, Laliberte A, Hong J, Mikhail M, Jose A, Dragas R, Fehlings M.** Early Intravenous Delivery of Human Brain Stromal Cells Modulates Systemic Inflammation and Leads to Vasoprotection in Traumatic Spinal Cord Injury. *Stem Cells Transl Med*. 2016 May 31. pii: sctm.2015-0295.
- Bambico FR, Bregman T, Diwan M, Li J, Darvish-Ghane S, Li Z, Laver B, Amorim BO, Covolan L, Nobrega JN, Hamani C.** Neuroplasticity-dependent and -independent mechanisms of chronic deep brain stimulation in stressed rats. *Transl Psychiatry*. 2015 Nov 3;5:e674.
- Bari AA, Fasano A, Munhoz RP, Lozano AM.** Improving outcomes of subthalamic nucleus deep brain stimulation in Parkinson's disease. *Expert Rev Neurother*. 2015 Oct; 15(10): 1151-60.
- Bittencourt S, Covolan L, Hamani C, Longo BM, Faria FP, Freymuller E, Ottersen OP, Mello LE.** Replacement of Asymmetric Synaptic Profiles in the Molecular Layer of Dentate Gyrus Following Cycloheximide in the Pilocarpine Model in Rats. *Front Psychiatry*. 2015 Nov 17;6:157.
- Bregman T, Reznikov R, Diwan M, Raymond R, Butson CR, Nobrega JN, Hamani C.** Antidepressant-like Effects of Medial Forebrain Bundle Deep Brain Stimulation in Rats are not Associated With Accumbens Dopamine Release. *Brain Stimul*. 2015 Jul-Aug;8(4):708-13.
- Bunda S, Burrell K, Heir P, Zeng L, Alamsahebpour A, Kano Y, Raught B, Zhang ZY, Zadeh G, Ohh M.** Inhibition of SHP2-mediated dephosphorylation of Ras suppresses oncogenesis. *Nat Commun*. 2015 Nov; 6: doi:10.1038/ncomms9859.
- Cadotte A, Cadotte DW, Livne M, Cohen-Adad J, Fleet D, Mikulis D, Fehlings MG.** Spinal Cord Segmentation by One Dimensional Normalized Template Matching: A Novel, Quantitative Technique to Analyze Advanced Magnetic Resonance Imaging Data. *PLoS One*. 2015 Oct 7;10(10):e0139323.
- Chakravarty MM, Hamani C, Martinez-Canabal A, Ellegood J, Laliberte C, Nobrega JN, Sankar T, Lozano AM, Frankland PW, Lerch JP.** Deep brain stimulation of the ventromedial prefrontal cortex causes reorganization of neuronal processes and vasculature. *Neuroimage*. 2016 Jan 15;125:422-7.
- Chan MW, Thibault I, Atenafu EG, Yu E, John Cho BC, Letourneau D, Lee Y, Yee A, Fehlings MG, Sahgal A.** Patterns of epidural progression following postoperative spine stereotactic body radiotherapy: implications for clinical target volume delineation. *J Neurosurg Spine*. 2016 Apr;24(4):652-9.
- Chen DQ, Desouza DD, Hayes DJ, Davis KD, O'Connor P, Hodaie M.** Diffusivity signatures characterize trigeminal neuralgia associated with multiple sclerosis. *Multiple Sclerosis Journal*. 2016 Jan; 22: 51-63.
- Cheng JC, Erpelding N, Kucyi A, DeSouza DD, Davis KD.** Individual differences in temporal summation of pain reflects nociceptive and antinociceptive brain structure and function. *Journal of Neuroscience*. 2015 Jul; 35: 9689-9700.

- Choi D, Fox Z, Albert T, Arts M, Balabaud L, Bunker C, Buchowski JM, Coppes MH, Depreitere B, Fehlings MG, Harrop J, Kawahara N, Martin-Benloch JA, Massicotte EM, Mazel C, Oner FC, Peul W, Quraishi N, Tokuhashi Y, Tomita K, Verlaan JJ, Wang M, Wang M, Crockard HA.** Rapid improvements in pain and quality of life are sustained after surgery for spinal metastases in a large prospective cohort. *Br J Neurosurg.* 2016 Jun;30(3):337-44.
- Choi D, Fox Z, Albert T, Arts M, Balabaud L, Bunker C, Buchowski JM, Coppes MH, Depreitere B, Fehlings MG, Harrop J, Kawahara N, Martin-Benloch JA, Massicotte EM, Mazel C, Oner FC, Peul W, Quraishi N, Tokuhashi Y, Tomita K, Verlaan JJ, Wang M, Crockard HA.** Prediction of Quality of Life and Survival After Surgery for Symptomatic Spinal Metastases: A Multicenter Cohort Study to Determine Suitability for Surgical Treatment. *Neurosurgery.* 2015 Nov;77(5):698-708.
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- Coulombe MA, Erpelding N, Kucyi A, Davis KD.** Intrinsic functional connectivity of periaqueductal gray subregions in humans. *Human Brain Mapping.* 2016 Apr; 37: 1514-1530.
- Dalzell K, Nouri A, Fehlings MG.** The timing of management of spinal cord injuries. 5th Edition, 2015, pp. 803-12. *Skeletal Trauma: Basic Science, Management and Reconstruction.* Elsevier Saunders, Philadelphia. Browner BD, Jupiter JB, Krettek C, Anderson PA (eds).
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- Davis KD, Kucyi A, Moayed M.** The pain switch: an “ouch” detector. *Pain.* 2015 Nov; 156: 2164-2166.
- Davis KD.** Neuroethical issues in brain imaging of pain. *The brain adapting with pain: Contribution of neuroimaging technology to pain mechanisms.* 2015 Jul; pp 381-389. Wolters Kluwer/IASP Press.
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## Invited Visits

- Davis, Karen Deborah.** 10th International Forum on Pediatric Pain, White Point Beach, Nova Scotia, October 2, 2015. Plenary Lecturer: New views on individual differences in how we feel pain: the dynamic pain connectome and the “pain switch”.
- Davis, Karen Deborah.** International neuropathic pain update, New Delhi, India, November 7, 2015. Invited Speaker: Brain and nerve abnormalities in trigeminal neuralgia.
- Davis, Karen Deborah.** Pittsburgh Center for Pain Research; University of Pittsburgh, Pittsburgh, Pennsylvania, December 2015. Keynote Speaker: The “dynamic pain connectome” & the “pain switch” (an ouch detector): Two new pain concepts & the impact on developing a pain-o-meter.
- Davis, Karen Deborah.** NCCIH/NIH Pain Special Interest Group, Bethesda, Maryland, January 2016. Keynote Speaker: How does the brain represent pain? Insight from the new concepts of a dynamic pain connectome and the pain switch.
- Davis, Karen Deborah.** MiiNDS Colloquia, McMaster University, Hamilton, Ontario, February 2016. Keynote Speaker: New concepts of a dynamic pain connectome and the pain switch: Insights into how the brain represents pain.
- Davis, Karen Deborah.** Montreal Neuroethics Network; Institut de recherches cliniques de Montréal, Montreal, Quebec, March 2016. Invited Lecturer: The neuroethics of fMRI-based ‘pain-o-meters’ for diagnostic, medical-legal, and insurance purposes.
- Davis, Karen Deborah.** Canadian Pain Society, May 2016. Invited Lecturer: Towards a brain imaging based painometer test: Capabilities and limitations of fMRI (in Workshop: Legal issues & neuroethics of brain imaging-based “pain-o-meters”: Friend or foe?).
- Davis, Karen Deborah.** Pain Mechanisms and Therapeutics Conference, Taormina, Italy, June 2016. Invited Lecturer: The dynamic pain connectome and the pain switch (an ouch detector) (lecture in workshop: Theories on pain – revisited & renewed?)
- Fehlings, Michael.** IMAST (International Meeting on Advanced Spine Techniques), Kuala Lumpur, Malaysia, July 10-11, 2015. Invited Lecturer: 1) Emerging Technologies in Spinal Cord Injury. 2) Laminectomy and fusion vs laminoplasty for the treatment of cervical spondylotic myelopathy: results from the AOSpine North America and International prospective multicenter CSM studies. 3) Efficacy and Safety of Riluzole in Acute Spinal Cord Injury. Rationale and Design of the AO Spine Phase III Multicenter Double Blinded Randomized Controlled Trial (RISCIS). 4) Mobile Spine Chordoma: Results from 166 patients from the AOSpine Knowledge Forum. 5) Is there a potential role for Riluzole in reducing risk of neurological deficit with 3-column osteotomy? 6) Survival and clinical outcomes in patients with metastatic epidural spinal cord compression: results of the AOSpine prospective multicenter study of 142 patients. 7) Central Cord Syndrome: Should we operate early or delay management?
- Fehlings, Michael.** Video Teleconference, Queensland, Australia, August 3, 2015. Keynote Speaker: Today's standards of management of spinal cord injuries.
- Fehlings, Michael.** Accessibility Innovation Showcase, MaRS, Government of Ontario, Toronto, Ontario, August 10, 2015. Keynote Speaker: Repair and regeneration of the injured spinal cord. What's new? What's hot?
- Fehlings, Michael.** AOSpine, Hong Kong, Asia, September 25, 2015. Invited Speaker: 1) Recent updates/research on spinal cord recovery. 2) Cervical sagittal imbalance with troublesome neck symptoms +/- cervical compression.
- Fehlings, Michael.** Congress of Neurological Surgeons (CNS), New Orleans, Louisiana, September 28-29, 2015. Invited Speaker: 1) Timing of spinal epidural abscess. 2) “Helpful” debate – section controversy: Methylprednisolone in Incomplete SCI.
- Fehlings, Michael.** North American Spine Society (NASS), Chicago, Illinois, October 14-16, 2015. Presenter: Meet the Author: Clinical and Surgical Predictors of Complications following Surgery for the Treatment of Cervical Spondylotic Myelopathy: Results from the Multicenter, Prospective AOSpine International Study of 479 Patients. 2) Prevention and Management of Perioperative Spinal Cord Injury. 3) Survival and Clinical Outcomes in Patients with Metastatic Epidural Spinal Cord Compression: Result of the AOSpine Prospective Multicenter Study of 142 Patients.



- Fehlings, Michael.** 43rd Annual Meeting of the Cervical Spine Research Society (CSRS), San Diego, California, December 4, 2015. Presenter: 1) Ask the Expert: Myelopathy. 2) Metastatic Epidural Cervical Spinal Cord Compression.
- Fehlings, Michael.** AOSpine Davos Courses, 2015 – Mastering Complex Spine Cases, Zurich, Switzerland, December 14-17, 2015. Keynote Speaker: 1) High Risk Adult Spine Deformity: How do we prevent and manage perioperative spinal deformity? 2) Research Symposium: How to Integrate Research Info Clinical Practice. 3) Advanced MR Imaging for the Assessment of the Cervical Cord: Studies of Patients with Degenerative Cervical Myelopathy.
- Fehlings, Michael.** Weill Cornell Medical College, Grand Rounds, New York, New York, January 11, 2016. Invited Lecturer: Repair and Regeneration of the Injured Spinal Cord; From Molecule to Man.
- Fehlings, Michael.** AOSpine-North American Clinical trials network symposium on clinical trials in spinal cord injury, Houston, Texas, January 17, 2016. Keynote Speaker: Neuroprotection trials for Acute spinal cord injury: Rationale and Status of the RISCIS trial.
- Fehlings, Michael.** Spine: Base to Summit, Beaver Creek, Colorado, January 28-30, 2016. Speaker: 1) Update on spinal cord Injury Research and Treatment. 2) Cervical Spondylotic Myelopathy: My Thinking, Techniques and Outcomes. 3) Cervical Spine – Case Discussion. 4) How I Think Through a Case– case discussion.
- Fehlings, Michael.** International Neurotrauma Symposium (INTS), Cape Town, South Africa, February 2, 2016. Keynote Speaker: 1) Clinical Issues In Spine Injury–New Classification. 2) Current Status and Priorities for Research in SCI. 3) A Clinical Guideline for the Timing of Surgical Decompression in the Treatment of Acute Traumatic Spinal Cord Injury.
- Fehlings, Michael.** 4th Annual Ottawa Neurosurgery Review, Ottawa, Ontario, February 10, 2016. Invited Speaker: Pathophysiology and Management of Spinal Cord Injury via WebEx.
- Fehlings, Michael.** A Day with the Neurotrauma Masters, Salt Lake City, Utah, March 9, 2016. Visiting Professor: Repair and Regeneration of The Injured Spinal Cord – From Molecule to Man.
- Fehlings, Michael.** The Tokai University Club, Tokyo, Japan, March 13, 2016. Visiting Professor: 1) Pathobiology and Management of Degenerative Cervical Myelopathy: What is New? What is Hot? 2) Repair and Regeneration of The Injured Spinal Cord – From Molecule to Man.
- Fehlings, Michael.** AANS/CNS – Disorders of the Spine and Peripheral Nerves Summit Meeting (2016 DSPN), Orlando, Florida, March 17-19, 2016. Invited Speaker: 1) The Changing Face of SCI Trials. 2) Innovation in Spinal Cord Injury Treatment: The Investigational Neuro-Spinal Scaffold(tm) and Bioengineered Neural Trails(tm). 3) Prevention and Management of Perioperative Spinal Cord Injury.
- Fehlings, Michael.** AOSpine Fellows Forum, Banff, Alberta, March 31, 2016. Invited Speaker: An overview of the current status and impact of AOSpine.
- Fehlings, Michael.** 4th International Spine Tumor Days, Dresden, Germany, April 8-9, 2016. Visiting Professor: Current concepts and outcome for patients with symptomatic spinal cord compression due to metastatic spine disease.
- Fehlings, Michael.** Global Spine Congress, Dubai, United Arab Emirates, April 13-15, 2016. Invited Speaker: 1) Identification and management of preoperative spinal cord injury” insights gained from the ScolIRisk study. 2) Management of spinal cord injury – best practice based on the latest evidence: Overview of the AOSpine SCI guidelines, what do we know? What are the knowledge gaps?
- Fehlings, Michael.** Wings for Life Scientific Meeting, Lake Fuschi, Austria, April 18, 2016. Invited Speaker: An examination of the therapeutic impact of human induced pluripotent stem cell derived neural precursor cells in cervical spinal cord injury.
- Fehlings, Michael.** Virginia Tech Carilion Research Institute School of Medicine, Roanoke, Virginia, April 29, 2016. Visiting Professor: Repair and Regeneration of The Injured Spinal Cord – From Molecule to Man.
- Fehlings, Michael.** 84th AANS Annual Scientific Meeting, Chicago, Illinois, May 1-4, 2016. Invited Speaker: 1) Outcomes of combined surgery and radiation treatment for patients with metastatic epidural spinal cord compression: Results of the prospective multi centre AOSpine North America Trial. 2) Update on the management of spine and spinal cord injury.
- Fehlings, Michael.** Seattle Science Foundation in collaboration with AOSpine, Seattle, Washington, May 18, 2016. Invited Speaker: Webinar on “Neuroprotection Trials in Acute Spinal Cord Injury—Focus on the RISCIS trial”.
- Fehlings, Michael.** International Conference on Cerebral Palsy and other Childhood-onset Disabilities, Stockholm, Sweden, June 3, 2016. Invited Speaker: Debate: Neural Precursor Stem Cells: The Hope and the Hype – Are We Ready For Clinical Trials?
- Fehlings, Michael.** French Spine Surgery Society (SFCR), Lyon, France, June 9, 2016. Invited Speaker: Repair and regeneration of the injured spinal cord: from molecule to man.
- Fehlings, Michael.** National Neurotrauma Society, Lexington, Kentucky, June 27, 2016. Invited Speaker: Advances in SCI Clinical Trial Design.
- Gentili, Fred.** International Summer school: Transnasal Endoscopic surgery: from sinuses to skull base, Brescia, Italy, July 13-17, 2015. Invited Faculty: Management of craniopharyngiomas.
- Gentili, Fred.** Mansoura International Neurosurgery Conference (MINC) In collaboration with the Egyptian Society of Neurological Surgeons, Alexandria, Egypt, July 23-25, 2015. Invited Guest Speaker: 1) Management of craniopharyngiomas. 2) Anterior skull base meningiomas: open vs endoscopic approaches.
- Gentili, Fred.** WFNS Interim meeting, Rome, Italy, September 8-15, 2015. Invited Speaker: 1) Evolution of Skull Base Surgery: from open to endoscopic techniques – current indications and limitations. 2) Endoscopic pituitary surgery– has it become the standard of care in pituitary surgery?
- Gentili, Fred.** IV International Congress of International Society of Reconstructive Neurosurgery (ISRN), Rome, Italy, September 13-14, 2015. Invited Speaker: The role of endoscopic techniques in anterior skull base meningiomas.

- Gentili, Fred.** Hands-on Course, University of Minho, Braga, Portugal, Oct 6-10, 2015. Invited Faculty and Course Co-Director: Surgical approaches to tumors and vascular lesions of the brain.
- Gentili, Fred.** European Association of Neurosurgical Societies annual meeting, Madrid, Spain, Oct 18-21, 2015. Invited Guest Speaker: 1) Plenary Session: The Management of Craniopharyngiomas: open vs endoscopic approach. 2) Plenary Session: Anterior skull base meningiomas- is there a role for the endoscopic approach?
- Gentili, Fred.** World Congress International Federation of Neuro-endoscopy, Puerto Vallarta, Mexico, Nov 1-4, 2015. Invited Speaker: Pros and Cons Session: Anterior skull base meningiomas endonasal approach.
- Gentili, Fred.** International Society of Pituitary Surgeons, Liverpool, United Kingdom, Nov 5-7, 2015. Speaker and Program Organizer: 1) Endoscopic pituitary surgery- has it become the state of the art and standard of care in 2015. 2) Management strategies for recurrent pituitary adenomas.
- Gentili, Fred.** Society of Neuro-oncology annual meeting, San Antonio, Texas, Nov 19-22, 2015. Invited Guest Speaker: Endoscopic Resection of Craniopharyngioma.
- Gentili, Fred.** Society of University Neurosurgeons Annual meeting, Phoenix, Arizona, March 10-13, 2016. Speaker.
- Gentili, Fred.** Department of Neurosurgery, West Virginia University School of Medicine, West Virginia, March 29-30, 2016. Visiting Professor.
- Gentili, Fred.** Jefferson University Symposium on Skull Base, Jefferson University School of Medicine, Philadelphia, Pennsylvania, April 8-10, 2016. Invited Faculty.
- Gentili, Fred.** Lisbon Congress Portuguese Neurosurgical Society and Spanish Neurosurgical Society, Lisbon, Portugal, May 11-14, 2016. Invited Guest: 1) The Management of Craniopharyngiomas. 2) Anterior skull base meningiomas. 3) Chordoma.
- Gentili, Fred.** EndoChicago World Congress of Endoscopic Surgery of the Skull Base and Spine, Chicago, Illinois, May 15-18, 2016. Invited Speaker.
- Gentili, Fred.** European Skull Base Society, Berlin, Germany, May 26-28, 2016. Invited Guest Speaker.
- Hamani, Clement.** Association for Assisting Children with Deficiency, Sao Paulo, Brazil, July 18, 2015. Invited Speaker: DBS in Parkinson's Disease and Dystonia.
- Hamani, Clement.** World Society for Stereotactic and Functional Neurosurgery, Mumbai, India, September 4, 2015. Invited Speaker: Guidelines for Psychiatric Surgery.
- Hamani, Clement.** Colombian Society of Neurology, Psychiatry and Neurosurgery, Pereira, Colombia, October 9-10, 2015. Invited Speaker: 1) PPN DBS. 2) DBS in Psychiatry: ASSFN guidelines. 3) DBS for depression. 4) DBS for memory.
- Hamani, Clement.** Stereotactic and Functional Neurosurgery of Latin Countries, Florianopolis, Brazil, February 26, 2016. Invited Speaker: 1) Direct Targeting. 2) Magnetic Resonance-Guided Focused Ultrasound. 3) DBS for Alzheimer's Disease.
- Hodaie, Mojgan.** World Society for Stereotactic and Functional Neurosurgery Interim Meeting 2015, Mumbai, India, September 5, 2015. Speaker: 1) Imaging Advances in Functional Neurosurgery. 2) Gamma Knife for the treatment of pain. 3) Structural MR imaging in functional neurosurgery - cortical thickness analysis and diffusion tensor imaging.
- Hodaie, Mojgan.** 74th Meeting of the Japan Neurosurgical Society Annual Meeting, Sapporo, Japan, October 15, 2015. Keynote Speaker: 1) Deep Brain Stimulation Symposium: Improving the current standards in Deep Brain Stimulation Surgery. 2) International Neurosurgery Education: Models for Advancing an Unmet Necessity.
- Hodaie, Mojgan.** EANS 2015 Annual Meeting, Madrid, Spain, October 19, 2015. Invited Speaker: Structural brain imaging of pain: Lessons learned from trigeminal neuralgia.
- Hodaie, Mojgan.** 1st Middle Eastern Conference for Stereotactic and Functional Neurosurgery, Dubayy [Dubai], United Arab Emirates, January 16, 2016. Keynote Speaker: Structural brain imaging in functional neurosurgery.
- Hodaie, Mojgan.** World Federation of Neurosurgical Societies (WFNS) Radiosurgery Course, New Delhi, India, March 5-6, 2016. Invited Speaker: 1) Imaging in Functional Radiosurgery Medanta Hospital-Gurgaon. 2) Functional Radiosurgery - beyond trigeminal neuralgia Medanta Hospital-Gurgaon .
- Hodaie, Mojgan.** 11th Asian Congress of Neurological Surgeons 2016 in conjunction with the 21st Annual Scientific Meeting of Indonesian Society of Neurological Surgeons, Surabaya, Indonesia, March 8-12th, 2016. Keynote Speaker: 1) Gamma Knife thalamotomies - indications and techniques (Movement Disorders workshop and live surgery course, Stereotactic Treatment for Movement Disorders: "Practical Approach in Asia". 2) Structural brain imaging of pain: increasing objectivity to guide surgical decision making. 3) Use of advanced imaging modalities for target selection in neuromodulation.
- Hodaie, Mojgan.** International Hydrocephalus Imaging Working Group in conjunction with American Society of Neuroradiology 54th Meeting, Washington, District of Columbia, May 27, 2016. Invited Speaker: Diffusion tensor imaging in Chiari malformations: Brainstem diffusivity analysis and correlation with Chiari symptomatology.
- Hutchison, William Duncan.** World Society of Stereotactic and Functional Neurosurgery, Mumbai, India, September 4, 2015. Invited Speaker: Microelectrode Recordings.
- Kalia, Suneil.** WSSFN, Mumbai, India, September 4, 2015. Invited Speaker: Blending Science and Clinical Work: The Role of Collaboration.
- Kalia, Suneil.** NSERC-CREATE Program in Neuroengineering, McGill University, Montreal, Quebec, April 7, 2016. Invited Speaker: Molecular Control of the CNS - Neuroengineering challenges.
- Kalia, Suneil.** 20th International Congress of PD and Movement Disorders, Berlin, Germany, June 20-21, 2016. Invited Speaker: Optimizing the management of the DBS patient -Skill Workshop.

- Kongkham, Paul.** SNO, San Antonio, Texas, November 19–22, 2015. Invited Speaker: Epigenetics of brain metastases.
- Lozano, Andres M.** Alzheimer’s Association International Conference (AAIC), Washington, District of Columbia, July 22, 2015. Invited Speaker: Deep brain stimulation targeting the fornix for mild Alzheimer’s disease: Initial results of the advance randomized controlled trial.
- Lozano, Andres M.** Lemanic Neuroscience Annual Meeting (LNAM), Les Diablerets, Switzerland, August 29, 2015. Invited Speaker: Modulating the structure and function of the brain with deep brain stimulation.
- Lozano, Andres M.** 2015 World Society of Stereotactic and Functional Neurosurgery (WSSFN) Interim Meeting, Mumbai, India, September 6, 2015. Invited Speaker: Future of neuromodulation.
- Lozano, Andres M.** Congress of Neurological Surgeons Annual Meeting, New Orleans, Louisiana, September 27, 2015. Invited Speaker: A Phase II study of Deep Brain Stimulation of Memory Circuits for Alzheimer’s disease.
- Lozano, Andres M.** 77th Annual Meeting of the American Academy of Neurological Surgery, Heidelberg, Germany, October 9, 2015. Invited Speaker: The Potential of magnetic resonance guided focused ultrasound in neurosurgical disorders.
- Lozano, Andres M.** IV Congreso de la Sociedad Española de Neurocirugía Funcional y Estereotáctica, Oviedo, Spain, October 30, 2015. Invited Speaker: 1) Indications of deep brain stimulation in Alzheimer’s and other psychiatric diseases. 2) Present and future of deep brain stimulation.
- Lozano, Andres M.** 7th edition of World Science Forum, Budapest, Hungary, November 6, 2015. Invited Speaker: Adjusting the dials in the circuits of the human brain with deep brain stimulation.
- Lozano, Andres M.** Institute of Ageing Visiting Scholar, University of Pennsylvania, Philadelphia, Pennsylvania, November 17, 2016. Invited Speaker: Activating and remodeling dysfunctional brain circuits using Deep Brain Stimulation in Alzheimer’s disease.
- Lozano, Andres M.** Weill Cornell Medical College Grand Rounds, New York, New York, November 23, 2015. Visiting Professor: Adjusting the activity in brain circuits.
- Lozano, Andres M.** Symposium on Scientific and Ethical Issues in DBS for Psychiatric Disorders Study Design – from Beta Testing to Rollout. EA European Academy of Technology and Innovation Assessment GmbH, Frankfurt, Germany, December 12, 2015. Invited Speaker: Personal experience and methodological issues related to DBS.
- Lozano, Andres M.** 1st Middle-Eastern Conference for Stereotactic and Functional Neurosurgery, Dubayy [Dubai], United Arab Emirates, January 17, 2016. Distinguished Speaker: 1) The possibility of DBS for Alzheimer’s disease. 2) Future considerations in functional neurosurgery.
- Lozano, Andres M.** Asian–Australasian Society for Stereotactic Functional Neurosurgery, Cairns, Australia, March 3, 2016. Invited Speaker: 1) Emerging strategies in functional neurosurgery; 2) Recent advances in minimally invasive neurosurgery: MR guided focused ultrasound; 3) The possibility of neurosurgery for Alzheimer’s disease. 4) The future of Focused Ultrasound in Neurosurgery. 5) The surgery for Parkinson’s disease.
- Lozano, Andres M.** Harvard University, Boston, Massachusetts, March 10, 2016. Visiting Professor: Activating memory circuits with deep brain stimulation: Implications for Alzheimer’s disease.
- Lozano, Andres M.** Hospital Universitariode Santiago de Compostela, A Coruna, Spain, March 14, 2016. Invited Speaker: Functional Neurosurgery.
- Lozano, Andres M.** University of Santiago of Compostela (USC), Santiago, Spain, March 14, 2016. Keynote Speaker: Deep brain stimulation in behavioural disorders and memory.
- Lozano, Andres M.** 2nd International DBS Conference, Dusseldorf, Germany, March 16, 2016. Keynote Speaker: Adjusting the dials in the circuits of the human brain with deep brain stimulation.
- Lozano, Andres M.** 68th American Academy of Neurology (AAN) Annual Meeting, Vancouver, British Columbia, April 15, 2016. Invited Speaker: Recent advances in functional neurosurgery.
- Lozano, Andres M.** University of Calgary, Calgary, Alberta, April 22, 2016. Visiting Professor: The possibility of deep brain stimulation for Alzheimer’s disease.
- Lozano, Andres M.** Alberta Neurosurgery Society, Banff, Alberta, April 23, 2016. Invited Speaker: Advances in Functional Neurosurgery.
- Lozano, Andres M.** 3rd NG Conference, Salt Lake City, Utah, May 4, 2016. Invited Speaker: Adjusting the dials in the circuits of the human brain with deep brain stimulation.
- Lozano, Andres M.** Portuguese & Spanish Neurosurgical Societies, Estoril, Portugal, May 12, 2016. Keynote Speaker: 1) The possibility of Neurosurgery to treat Alzheimer’s disease. 2) Advances in surgery of movement disorders.
- Tymianski, Michael.** 1st EC IC bypass course, Royal Adelaide Hospital, Adelaide, Australia, September 22, 2015. Invited Speaker.
- Tymianski, Michael.** Neuroscience seminar series, Ohio State University, Columbus, Ohio, October 25, 2015. Invited Speaker: Translational paradigms for stroke neuroprotection trials.
- Tymianski, Michael.** International Stroke Conference, Los Angeles, California, February 18, 2016. Invited Speaker: 1) “Neuroprotection/Re-perfusion approaches: current state and future developments. 2) “Neuroprotection”.
- Tymianski, Michael.** International Conference of Cerebrovascular Surgery + Neurological Surgeons, Mumbai, India, Feb 24–28 2016. Invited Speaker: Minimally invasive and endoscopic approaches to aneurysm surgery.
- Tymianski, Michael.** 2nd Adelaide Micro-vascular Anastomosis Course, Royal Adelaide Hospital, Adelaide, Australia, March 18–19 2016. Visiting Professor: 1) EC-IC bypass for moya moya disease. 2) EC-IC bypass for complex and giant aneurysms. 3) Technical pearls and complications avoidance.
- Tymianski, Michael.** Stroke Research Meeting, Royal Melbourne Hospital, Melbourne, Australia, March 22, 2016. Invited Speaker: The ESCAPE-NA-1 trial as a possible quantum leap in stroke neuro-intervention.



- Tymianski, Michael.** Wuhan University School of Medicine, Wuhan, China, April 7-10, 2016. Invited Speaker: Management of complex cerebral aneurysms, and role of minimally invasive techniques.
- Tymianski, Michael.** Barrow Institute Symposium, Phoenix, Arizona, May 19, 2016. Invited Speaker: Agony and ecstasy.
- Valiante, Taufik.** Workshop on the Neurobiology of Epilepsy, Istanbul, Turkey, September 5, 2015. Invited Speaker: Alterations in Cerebrovascular Reactivity in Mesial Temporal Lobe Epilepsy.
- Zadeh, Gelareh.** University of California, Irvine, Medical Center, California, August 2015. Invited Speaker: Neurosurgery guided by Biology.
- Zadeh, Gelareh.** World Federation of Neurosurgical Societies, Rome, Italy, September 2015. Invited Speaker: 1) Clinical and molecular predictors of recurrence for meningiomas. 2) Update on anti-angiogenesis. 3) What factors predict recurrence. 4) Gliomas: the new world of classification and management.
- Zadeh, Gelareh.** Society for Neuro-Oncology, San Antonio, Texas, November 2015. Invited Speaker: 1) Surgical Resection for GBM - Why Not a Cure? 2) Challenges from the surgery perspective. 3) Challenges from the surgery perspective. 4) Escape mechanisms of antiangiogenesis. 5) Prediction parameters of Radiosurgery for meningiomas. 6) Future advances in brain metastases.
- Zadeh, Gelareh.** Society for Neuro-Oncology, Kuala Lumpur, Malaysia, January 2016. Invited Speaker: 1) Update on Management of Brain Metastases. 2) Clinical and Biological predictors of Meningiomas.
- Zadeh, Gelareh.** North American Skull Base Society, Arizona, March 2016. Invited Speaker: 1) Molecular Signature of Vestibular Schwannoma. 2) Molecular Predictors of Pituitary Tumors.
- Zadeh, Gelareh.** Schwannomatosis Conference, New York University, New York, March 2016. Keynote Speaker: Genomic Landscape of Schwannomas.
- Zadeh, Gelareh.** Weill Cornell Medicine, New York, March 2016. Keynote Speaker: Genomic Landscape of Schwannomas.
- Zadeh, Gelareh.** Canadian Cancer Trials Group, Canada, April 2016. Invited Speaker: Identifying Viable Therapeutic Targets of GBM Metabolism Through A Drug Screen: a reality for clinical trial proposal.
- Zadeh, Gelareh.** 4th Annual Thomas Jefferson University - Seoul National University, Endoscopic Skull Base Symposium, Pennsylvania, April 2016. Invited Speaker: Advances in the Treatment of Skull Base Tumors.
- Zadeh, Gelareh.** American Association of Neurological Surgeons- AANS, Illinois, May 2016. Invited Speaker: 1) High frequency ultrasound in Brain Tumor. 2) Advances in Focused Ultrasound in Management of Brain Tumors.
- Zadeh, Gelareh.** Terry Fox Scientific Meeting, British Columbia, May 2016. Invited Speaker: Role of bone marrow derived cell in regulating tumor Microenvironment.
- Zadeh, Gelareh.** Acoustic Neuroma Association of Canada, June 2016. Presenter: Genomic Landscape of Acoustic Schwannomas.

## Research and Investigations

- Chemiluminescence, fluorescence multi-well plate reader for protein complementation assays. *Kalia S.* (\$30,000.00 CAD 2015).
- Chronic Pain Network. Canadian Institutes of Health Research (CIHR). *Buckley N, Iorio A, Finley A, Stevens B, Schneider C, Gilron I, Stinson J, MacDermid J, Davis KD, Diatchenko L, Choiniere M, Latimer M, Poulin P, Frechette P.* (\$12,450,000.00 CAD Mar 2016 – Mar 2021).
- Clinical investigation of Frameless, Adaptive, Image-guided Gamma Knife Radiosurgery. *Canadian Institute of Health Research. Zadeh G.* (\$510,000.00 CAD 2015).
- Development of a Pain Treatment Prediction Tool. *The Mayday Fund. Davis KD.* (\$150,178.00 USD Jan 2016 – Jan 2018).
- Discovery of molecular targets for treatment of clinically malignant meningioma. *Canadian Institutes of Health Research (CIHR). Zadeh G, Aldape K.* (\$100,000.00 CAD 2016 - 2017).
- Intraoperative RS-2HG as a biomarker of IDH mutation in personalized glioma surgery. *Ontario Cancer Institute. Zadeh G.* (\$200,000.00 CAD 2016).
- Investigating the Therapeutic benefits of Azoles in Preclinical Models of Pediatric Gliomas. *B.r.a.i.n.child. Zadeh G.* (\$24,680.00 CAD 2015).
- iPSC-Based and Bioengineered Approaches to Enable Spinal Cord Regeneration: A Team Grant for Clinical Translation. *Ontario Institute for Regenerative Medicine. Fehlings M.* (Jan 2016 – Dec 2021).
- Solid phase microextraction-based integrated platform for untargeted and targeted in vivo brain. *Ontario Brain Institute; Brain Canada, Cqdm. Hamani C, Pawliszyn J, Vuckovic D.* (\$201,427.00 CAD Apr 2015 – Mar 2018).
- Therapeutic Approaches to Protect against Ischemia/reperfusion Injury Following Surgical Decompression for Cervical Spondylotic Myelopathy (CSM): A Potential Solution to Attenuate Perioperative Neurological Complications following Decompressive Surgery. *Cervical Spine Research Society. Fehlings M.* (2015).
- To identify potential biomarkers of response to Marizomib treatment in GBM patients. *Triphase. Zadeh G.* (\$240,000.00 CAD 2015).

## Honours and Awards

- Fehlings, Michael:** Thomas Whitecloud Award for Best Clinical Paper, Scoliosis Research Society. July 2015.
- Fehlings, Michael:** North American Spine Society (NASS) Best Paper Award. October 2015.

**Fehlings, Michael:** Leaders Circle Recognition Award. Awards honour the recipient's contributions in bringing international meetings to Toronto. Dr. Fehlings received two awards for bringing the 2018 Symposium of the International Neurotrauma Society and the 2019 Global Spine Congress to Toronto. June 2016.

**Lozano, Andres M:** Honorary Member, Spanish Society for Stereotactic and Functional Neurosurgery. 2015.

**Lozano, Andres M:** Honorary Member, Western Neurological Society. 2015.

**Lozano, Andres M:** 2015 Lists of Highly Cited Researchers and Most Influential Scientific Minds for the period 2002-2013, Thomson Reuters. 2016.

**Lozano, Andres M:** Devotion to Science Award, University of Salerno, Italy. 2016.

**Lozano, Andres M:** Elected as a Fellow of the European Academy of Sciences, European Academy of Sciences. 2016.

**Lozano, Andres M:** Elected as an Officer (O.C.) of the Order of Canada. 2016.

**Zadeh, Gelareh:** Alan Hudson Teaching Award, Division of Neurosurgery, Dept of Surgery, University of Toronto. 2015.

**Zadeh, Gelareh:** American Brain Tumor Association Young Investigator Award, American Association of Neurological Surgeons (AANS). 2015.

## Division of Orthopaedics

<b>Dr. R.S Bell</b>	Professor
<b>Dr. J.R. Davey</b>	Associate Professor
<b>Dr. M Erwin</b>	Assistant Professor
<b>Dr. R. Gandhi</b>	Associate Professor
<b>Dr. J. Lau</b>	Assistant Professor
<b>D. S. Lewis</b>	Associate Professor
<b>Dr. N.N Mahomed</b>	Professor (Division Head)
<b>Dr. K.W. Marshall</b>	Assistant Professor
<b>Dr. D.J. Ogilvie-Harris</b>	Professor
<b>Dr. Y.R. Rampersaud</b>	Associate Professor
<b>Dr. K. Syed</b>	Assistant Professor
<b>Dr. C. Veillette</b>	Assistant Professor

## Publications

**Abdallah FW, Dwyer T, Chan VW, Niazi AU, Ogilvie-Harris DJ, Oldfield S, Patel R, Oh J, Brull R.** Intravenous and perineural dexmedetomidine similarly prolong the duration of analgesia after interscalene brachial plexus block: A randomized, three-arm, triple-masked, placebo-controlled trial. *Anesthesiology*. 2016 Mar;124(3):683-95.

**Bhatia A, Bril V, Brull RT, Perruccio A, Wijesundera D, Alvi S, Lau J, Gandhi R, Mahomed N, Davis AM.** Study protocol for a pilot, randomised, double-blinded, placebo controlled trial of perineural local anaesthetics and steroids for chronic post-traumatic neuropathic pain in the ankle and foot: the PREPLANS study. *BMJ Open*. 2016 Jun;6(6):e012293.

**Chahal J, Van Thiel GS, Mather RC 3rd, Lee S, Song SH, Davis AM, Salata M, Nho SJ.** The Patient Acceptable Symptomatic State for the Modified Harris Hip Score and Hip Outcome Score Among Patients Undergoing Surgical Treatment for Femoroacetabular Impingement. *Am J Sports Med*. 2015 Aug; 43(8): 1844-9.

**Cruz Eng H, Riazi S, Veillette C, Ami N, Niazi AU, Chin KJ, Chan VW, Perlas A.** An Expedited Care Pathway with Ambulatory Brachial Plexus Analgesia Is a Cost-effective Alternative to Standard Inpatient Care after Complex Arthroscopic Elbow Surgery: A Randomized, Single-blinded Study. *Anesthesiology*. 2015 Dec; 123(6): 1256-66.

**Dwyer T, Slade Shantz J, Chahal J, Wasserstein D, Schachar R, Kulasegaram KM, Theodoropoulos J, Greben R, Ogilvie-Harris D.** Simulation of Anterior Cruciate Ligament Reconstruction in a Dry Model. *Am J Sports Med*. 2015 Dec; 43(12): 2997-3004.

**Dwyer T, Wright S, Kulasegaram KM, Theodoropoulos J, Chahal J, Wasserstein D, Ringsted C, Hodges B, Ogilvie-Harris D.** How to set the bar in competency-based medical education: standard setting after an Objective Structured Clinical Examination (OSCE). *BMC Med Educ*. 2016 Jan; 16:1.

**Dwyer T, Wright S, Kulasegaram KM, Theodoropoulos J, Chahal J, Wasserstein D, Ringsted C, Hodges B, Ogilvie-Harris D.** Competency-Based Medical Education: Can Both Junior Residents and Senior Residents Achieve Competence After a Sports Medicine Training Module? *J Bone Joint Surg Am*. 2015 Dec; 97(23): 1985-91.

**Gandhi R, Zywiell MG, Mahomed NN, Perruccio AV.** Depression and the Overall Burden of Painful Joints: An Examination among Individuals Undergoing Hip and Knee Replacement for Osteoarthritis. *Arthritis*. 2015 Mar;2015:327161.

**Goldstein CL, Lewis SJ.** Results of Surgical Treatment of Low Grade Adult Isthmic Spondylolisthesis. *Spondylolisthesis: Diagnosis, Non Surgical Management, and Surgical Techniques*. Springer, United States, New York. 2015; pp.291-299. A.L Wollowick and S. Sarwahi (eds).

- Goldstein CL, Macwan K, Sundararajan K, Rampersaud YR.** Perioperative outcomes and adverse events of minimally invasive versus open posterior lumbar fusion: Meta-analysis and systematic review. *J Neurosurg Spine.* 2016 Mar; 24(3): 416–27.
- Goldstein CL, Phillips FM, Rampersaud YR.** Comparative Effectiveness and Economic Evaluations of Open Versus Minimally Invasive Posterior or Transforaminal Lumbar Interbody Fusion: A Systematic Review. *Spine.* 2016 Apr; 8: S74–89.
- Harris JD, Chahal J.** Femoral Neck Stress Fractures. *Operative Techniques in Sports Medicine.* 2015 Sept; 23(3): 241–247.
- Harris SA, Rampersaud YR.** The importance of identifying and modifying unemployment predictor variables in the evolution of a novel model of care for low back pain in the general population. *Spine J.* 2016 Jan; 16(1): 16–22.
- Juneja SC, Chen T, Farhat YM, Veillette C.** In Vitro Effect of Transforming Growth Factor- 1 (TGF- 1) on Gene Expression in Human Flexor Digitorum Profundus Tendon Cells. *Orthopedic & Muscular System: Current Research.* 2016 Jun; 5:218.
- Juneja SC, Ventura M, Veillette C.** A less invasive approach of medial meniscectomy causes degenerative changes in articular cartilage but no significant changes in subchondral bone in rat knee. *Arthritis.* 2016, 5:2.
- Juneja SC, Viswanathan S, Ganguly M, Veillette C.** A Simplified Method for the Aspiration of Bone Marrow from Patients Undergoing Hip and Knee Joint Replacement for Isolating Mesenchymal Stem Cells and In Vitro Chondrogenesis. *Bone Marrow Research.* 2016 Feb; 2016;2016:3152065.
- Kapoor M, Mahomed N.** Osteoarthritis: Pathogenesis, Diagnosis, Available Treatments, Drug Safety, Regenerative and Precision Medicine Hardcover. First Edition, 2015. Adis Canada. Dr. Mohit Kapoor, Dr. Nizar Mahomed (eds).
- Kelly L, Kulpanu A, Gandhi R.** Clicking hip in a post-menopausal woman. *Canadian Medical Association Journal.* 2016 Jun 14; 188(9):667–8.
- Khoshbin A, Sheth U, Ogilvie-Harris D, Mahomed N, Jenkinson R, Gandhi R, Wasserstein D.** The effect of patient, provider and surgical factors on survivorship of high tibial osteotomy to total knee arthroplasty: a population-based study. *Knee Surgery, Sports Traumatology, Arthroscopy.* 2015 Nov 4.
- Kim C, Park SS, Davey JR.** Tranexamic acid for the prevention and management of orthopaedic surgical hemorrhage: Current evidence. *Journal of Blood Medicine.* 2015 Aug; 6: 239–244.
- Latham W, Hausman C, Lau J.** Hintegra Prosthesis: Design Issues and Implantation Techniques that lead to Revision Surgery. AAOS Mongraph Series 55: Total Ankle Arthroplasty. American Academy of Orthopaedic Surgeons, United States, Illinois. 2015; pp. 135–142. Haddad S (ed).
- Latham WCW, Lau JTC.** Total Ankle Arthroplasty: An Overview of the Canadian Experience. *Foot and Ankle Clinics of North America.* 2016 Jun; 21(2): 267–281.
- Lau J, Veljkovic A, Farrugia P.** Ankle Osteoarthritis. *Osteoarthritis.* Springer, Switzerland. 2015; pp. 93–111. M. Kapoor, N. Mahomed (eds).
- Lenke LG, Fehlings MG, Shaffrey CI, Cheung KM, Carreon L, Dekutoski MB, Schwab FJ, Boachie-Adjei O, Kebaish KM, Ames CP, Qiu Y, Matsuyama Y, Dahl BT, Mehdian H, Pellisé-Urquiza F, Lewis SJ, Berven SH.** Neurologic Outcomes of Complex Adult Spinal Deformity Surgery: Results of the Prospective, Multicenter Scolio-RISK-1 Study. *Spine.* 2016 Feb; 41(3): 204–12.
- Leroux T, Chahal J, Wasserstein D, Verma NN, Romeo AA.** A Systematic Review and Meta-analysis Comparing Clinical Outcomes After Concurrent Rotator Cuff Repair and Long Head Biceps Tenodesis or Tenotomy. *Sports Health.* 2015 Jul; 7(4): 303–7.
- Leroux T, Ogilvie-Harris D, Veillette C, Chahal J, Dwyer T, Khoshbin A, Henry P, Mahomed N, Wasserstein D.** The epidemiology of primary anterior shoulder dislocations in patients aged 10 to 16 years. *Am J Sports Med.* 2015 Sept; 43(9): 2111–7.
- Lewis ND, Keshen SG, Lenke LG, Zywiell MG, Skaggs DL, Dear TE, Strantzas S, Lewis SJ.** The Deformity Angular Ratio: Does It Correlate With High-Risk Cases for Potential Spinal Cord Monitoring Alerts in Pediatric 3-Column Thoracic Spinal Deformity Corrective Surgery? 2015 Aug; 40(15): E879–85.
- Lewis S, Dear T, Zywiell M, Keshen S, Rampersaud YR, Magana S.** T12 Sagittal Tilt Predicts Thoracic Kyphosis. *Spine Deformity.* 2016 Mar; 4(2): 112–119.
- McEvenue G, Fitzpatrick F, vonSchroeder HP.** An educational Intervention to Improve Splinting for Common Hand Injuries. *Journal of Emergency Medicine.* 2016 Feb; 50(2): 228–34.
- Menna J, Wolek R, Veillette CJ.** Management of the stiff elbow. *Current Progress in Orthopedics.* Tree Life Media. 2016. Johari A, Luk KDK, Waddell J (eds).
- Neuman BJ, Baldus C, Zebala LP, Kelly MP, Shaffrey C, Edwards C 2nd, Koski T, Schwab F, Glassman S, Parent S, Lewis S, Lenke LG, Buchowski JM, Smith JS, Crawford CH 3rd, Kim HJ, Lafage V, Lurie J, Carreon L, Bridwell KH.** Patient Factors That Influence Decision Making: Randomization Versus Observational Nonoperative Versus Observational Operative Treatment for Adult Symptomatic Lumbar Scoliosis. *Spine.* 2016 Mar; 41(6): E349–58.
- Ogilvie-Harris DJ, Schachar RS.** Osteoarthritis: Joint Conservation Strategies. *Osteoarthritis: Pathogenesis, Diagnosis, Available Treatments, Drug Safety.* 2015; pp. 155–170. Springer, Switzerland. Mohit Kapoor, Nizar Mahomed (eds).
- Perruccio AV, Gandhi R, Lau JTC, Syed KA, Mahomed NN, Rampersaud RY.** Cross-Sectional Contrast Between Individuals with Foot/Ankle vs. Knee Osteoarthritis for Obesity and Low Education on Health-Related Quality of Life. *Foot & Ankle International.* 2016 Jan; 37(1): 24–32.
- Phillips FM, Cheng I, Rampersaud YR, Akbarnia BA, Pimenta L, Rodgers WB, Uribe JS, Khanna N, Smith WD, Youssef JA, Sulaiman WA, Tohmeh A, Cannestra A, Wohns RN, Okonkwo DO, Acosta F, Rodgers EJ, Andersson G.** Breaking Through the “Glass Ceiling” of Minimally Invasive Spine Surgery. *Spine.* 2016 Apr; 41(8): S39–43.
- Rampersaud YR, Nakamura A, Lewis SJ.** Lumbar Spine Osteoarthritis. 2015. Springer, Canada.



- Sermer C, Devitt B, Chahal J, Kandel R, Theodoropoulos J.** The Addition of Platelet-Rich Plasma to Scaffolds Used for Cartilage Repair: A Review of Human and Animal Studies. *Arthroscopy*. 2015 Aug; 31(8): 1607-25.
- Sheth U, Gohal C, Chahal J, Nauth A, Dwyer T.** Comparing Entry Points for Antegrade Nailing of Femoral Shaft Fractures. *Orthopedics*. 2016 Jan-Feb;39(1):e43-50.
- Veillette C, Canadian Orthopaedic Trauma Society.** Multicenter Randomized Clinical Trial of Nonoperative Versus Operative Treatment of Acute Acromio-Clavicular Joint Dislocation. *J Orthop Trauma*. 2015 Nov; 29(11): 479-87.
- Veillette C, Jurisica I.** Precision Medicine for Osteoarthritis. *Osteoarthritis: Pathogenesis, Diagnosis, Available Treatments, Drug Safety, Regenerative and Precision Medicine*. 2015. Springer, United States. Kapoor M, Mahomed N (eds).
- Veljkovic A, Dwyer T, Lau J, Abbas KZ, Brull R.** Neurological Complications Related to Elective Orthopaedic Surgery: Part 3: Common Foot and Ankle Procedures. *Anesthesia Pain Medicine*. 2015 Sept; 40(5): 455-66.
- Viswanathan S, Bhatt S, Gómez-Aristizábal A, Chaboureau A, Weston A, Fazio A, Kapoor M, Naraghi A, Mahomed N, Marshall W, Keating A, Ogilvie-Harris D, Chahal J.** Human Autologous Mesenchymal Stromal Cells for the Treatment of Mid to Late Stage Knee Osteoarthritis—A Phase I Pilot Study. *Cytotherapy*. 2016 Jun; 18(6): s132.
- Viswanathan S, Wolfstadt J, Chahal J, Gomez-Aristizabal A.** Regenerative Medicine Approaches for Treatment of Osteoarthritis. *Osteoarthritis: Pathogenesis, Diagnosis, Available Treatments, Drug Safety, Regenerative and Precision Medicine*. Springer, 2015; pp. 235-255. Kapoor M, Mahomed NN (eds).
- Weyand B, Noehre M, Schmaelzlin E, Stolz M, Israelowitz M, Gille C, von Schroeder HP, Reimers K, Vogt PM.** Noninvasive oxygen monitoring in three-dimensional tissue cultures under static and dynamic culture conditions. *Bioresearch*. 2015; 4(1): 266-277.

## Invited Visits

- Akens, Margarete.** Western, Bone and Joint Institute, London, Ontario, Apr 8-9, 2016. Presenter: 1) The Impact of Thermal Cycling on Biofilm Growth on Stainless Steel and Titanium Plates. 2) Characterization of microdamage accumulation in metastatically-involved vertebrae.
- Davey, J. Roderick.** Zimmer Biomet Institute, Calgary, Alberta, October 23-24, 2015. Invited Speaker: 1) ACL Preservation / Optimizing Patient Outcomes. 2) Continuum of Constraint in Total Knee Arthroplasty. 3) Restoring Hip Biomechanics in Primary THA. 4) Complex Femoral Revision with Bone Loss.
- Davey, J. Roderick.** Canadian Arthroplasty Society, Ottawa, Ontario, November 26, 2015. Presenter: Decreased Transfusion Rates in Bilateral Simultaneous THA Using Routine Topical Tranexamic Acid.
- Davey, J. Roderick.** Zimmer Biomet Institute / Division of Orthopaedic Surgery Queens University, Kingston, Ontario, December 8, 2015. Keynote Speaker: Arcos Modular Hip System.
- Davey, J. Roderick.** Division of Orthopaedic Surgery, Queens University, Kingston, Ontario, December 9, 2015. Visiting Professor: Revision Total Hip Arthroplasty.
- Kapoor, Mohit.** William Harvey Institute, Queen Mary University of London, London, United Kingdom, 2015. Invited Speaker: Can we stop/delay the process of cartilage degeneration?
- Kapoor, Mohit.** World Congress on Bone, Muscle and Joint Diseases (BMJD), Montreal, Quebec, 2015. Invited Speaker: microRNAs as potential OA Biomarkers.
- Kapoor, Mohit.** EULAR Congress, Roma, Italy, 2015. Presenter: Role of Ephrin B2 in fibrosis.
- Kapoor, Mohit.** World Pharmaceuticals Congress, Dubai, United Arab Emirates, 2015. Invited Speaker: Small animal models of osteoarthritis.
- Kapoor, Mohit.** 3rd Annual McCaig Meeting on Musculoskeletal Diseases, Calgary, Alberta, 2016. Keynote Speaker: Role of microRNAs in OA Pathogenesis.
- Kapoor, Mohit.** Workshop on Musculoskeletal Diseases: From Animal Models to Human Disease, Bone and Joint Institute, Western University, London, Ontario, 2016. Invited Speaker: microRNAs as Potential Biomarkers and Therapeutic Targets in Osteoarthritis.
- Kapoor, Mohit.** 3rd Skin Research Group Symposium, Hamilton, Ontario, 2016. Invited Speaker: Ephrin B2 Shedding: Novel Mechanism Driving Tissue Fibrosis.
- Kapoor, Mohit.** 6th International Symposium on Musculoskeletal System and Pain, Tokyo, Japan, 2016. Invited Speaker: Can we stop joint destruction and pain associated with Osteoarthritis? Focus on Potential Biomarkers and Therapeutic Targets in Knee and Spine Osteoarthritis.
- Lau, Johnny.** AOFAS Summer Meeting 2015, Long Beach, California, July 17, 2015. Speaker: Functional Outcome of Outpatient vs. Inpatient Care for Complex Ankle and Hindfoot Surgery: A Retrospective Cohort Cost-Effectiveness Analysis.
- Lau, Johnny.** AO Trauma Regional Master Course— Foot and Ankle: Practical exercise, Dubai, United Arab Emirates, October 17-20, 2015. Distinguished Speaker: 1) Subtalar distraction arthrodesis with bone block & Triple arthrodesis. 2) Charcot ankle : management and outcome. 3) Ankle Arthrodesis versus Arthroplasty. 4) Peroneal tendon pathology. 5) Management of posterior tibial tendon Deficiency. 6) Tendon Pathology. 7) Midfoot, Forefoot. 8) Lisfranc Injuries. 9) Management of ankle arthritis: Arthrodesis
- Lau, Johnny.** University of Calgary Journal Club, Calgary, Alberta, November 9, 2015. Invited Speaker: Low Intensity Pulsed Ultrasound for Fracture Healing.
- Lau, Johnny.** Zayed Military Hospital Continuing Medical Education, Abu Dhabi, United Arab Emirates, December 22, 2015. Invited Speaker: Ankle Pain After Ankle Sprain.

**Lau, Johnny.** AO Trauma Course – Foot and Ankle Reconstruction, Athens, Greece, April 7, 2016. Distinguished Speaker: 1) Talonavicular and Subtalar Fusions. 2) Hallux Rigidus: Update. 3) Peroneal Tendon Pathology.

**Lau, Johnny.** 4th Emirates International Orthopaedic Congress, Dubai, United Arab Emirates, April 22, 2016. Keynote Speaker: 1) Treatments for Failed Forefoot Reconstructive procedures: Now what? 2) Achilles Tendon Ruptures: Surgical vs. Non-Surgical treatment and optimizing strength. 3) Rational Approaches for the Acute and Chronic Ankle Syndesmotic Injuries. 4) Approach to the Painful Ankle Fusion. 5) Evidence Based Medicine for Biologics in Sports Foot/Ankle Injuries.

**Lewis, Stephen.** The 22nd International Meeting on Advanced Spine Technique, IMAST, Kuala Lumpur, Malaysia, July 11, 2015. Invited Lecturer: 1) Surgical Correction of Severe Deformity due to Ankylosing Spondylitis. 2) Role for Three Column Resection in Adult Spinal Deformity. 3) Adolescent Idiopathic Scoliosis.

**Lewis, Stephen.** 2015 Spine Fellow Graduation, Washington University School of Medicine, Missouri, July 24, 2015. Visiting Professor: 1) Extending your skills: Problem solving and innovation in spine surgery. 2) Getting started in your practice: How to make an impact.

**Lewis, Stephen.** Stryker, San Francisco, California, August 29, 2015. Invited Lecturer: Fixation B Project.

**Lewis, Stephen.** SRS 50th Annual Meeting & Course, United States, October 2015. Presenter: 1) The Deformity Angular Ratio: Can it Predict High Risk Cases for Potential Spinal Cord Monitoring Alerts in Pediatric Three-Column Thoracic Spinal Deformity Corrective Surgery? 2) Posterior Column Reconstruction Improves Fusion Rates at the Level of the Osteotomy in Three Column Posterior Based Osteotomies.

**Lewis, Stephen.** Fall Deformity Symposium Advanced Spinal Deformity Session, Stryker, Las Vegas, Nevada, November 6-7, 2015. Invited Lecturer: 1) High-Grade Spondylolisthesis Fusion. 2) Congenital Deformity for VCR. 3) PSO/VCR: Indications, Planning and Resection.

**Lewis, Stephen.** 1st Annual International Spine Deformity Symposium (ISDS), BroadWater, Chicago, Illinois, December 4, 2015. Invited Lecturer: 1) What do we know now? Review of current research. 2) Sagittal Imbalance. 3) Angular kyphotic deformity.

**Lewis, Stephen.** The 45th Annual Meeting of the Japanese Society for Spine Surgery and Related Research, The Japanese Society Surgery and Related Research, Japan, April 14, 2016. Invited Lecturer: Major Spinal Reconstructions: Can We Help Out Patients?

**Rampersaud, Yoga Raja.** New Zealand Spine Society COE Meeting, Trinity Wharf, New Zealand, May 27-29, 2016. Presenter: 1) Surgical Techniques - MIS Spine Surgery. 2) Low Back Pain - Integrated Model of Care. 3) Surgical Approach to Low Back Pain. 4) Spinal Metastases/Infection.

**Rampersaud, Yoga Raja.** North American Spine Society (NASS) 30th Annual Meeting, Chicago, Illinois, October 13-14, 2015. Presenter: 1) Assessment and Treatment of Spine Pain. 2) Is MIS the New Standard in a Value-Based Setting?

**Veillette, Christian.** Canadian Shoulder and Elbow Society – 2016 Shoulder Course, Ottawa, Ontario, January 2016. Presenter: 1) Proximal Humerus Fractures. 2) Primary Osteoarthritis.

**Veillette, Christian.** American Academy of Orthopaedic Surgery – Technology Theater, Orlando, Florida, March 2016. Presenter: 1) Wearable Technologies in Orthopaedic Surgery. 2) Open Up for Patient Reported Outcomes in Orthopaedics.

## Research and Investigations

Imaging Progressive Cartilage Degeneration: Unravelling Mechanisms Associated with Joint Damage in Osteoarthritis. *Canada Foundation for Innovation (CFI). Kapoor M.* (\$400,000.00 CAD Apr 2016 – Mar 2020).

Investigating the Role of Re-Programmed Monocyte/Macrophages in Modulating Inflammation and Ameliorating Cartilage Degradation in Osteoarthritis. *The Arthritis Society. Kapoor M, Viswanathan S.* (\$319,675.00 CAD Aug 2015 – Jul 2018).

microRNAs as potential prognostic and therapeutic targets in facet cartilage degeneration associated with spine osteoarthritis. *Krembil Foundation. Kapoor M.* (\$411,000.00 CAD Mar 2016 – Feb 2019).

Role of ULK1 in the pathophysiology of Osteoarthritis in vivo. *Arthritis Program, University Health Network. Kapoor M.* (\$50,000.00 CAD Mar 2015 – 2016).

Sex Differences in the Association Between Inflammatory Biomarkers and Knee OA Pain. *CIHR. Perruccio A, Badley E, Chandran V, Gandhi R, Kapoor M, Rampersaud Y.* (\$100,000.00 CAD Jul 2015 – Jun 2016).

The OsteoArthritis Data Integration Platform (OADIP): Identifying and mapping genomic markers of osteoarthritis. *Krembil Foundation. Veillette C, Jurisica I.* (\$339,375.00 CAD 2016).

## Honours and Awards

**Lewis, Stephen:** Whitecloud Award For the Best Clinical Paper at the 22nd International Meeting on Advanced Spine Techniques. Scoliosis Research Society. July 2015.

**Lewis, Stephen:** The Wightman-Berris Academy Teaching and Education Award. Best Teachers from all Health Disciplines, from Mount Sinai, University Health Network and Community and Subspecialty Academy Sites. May 2016.

**Waddell, James P:** Distinguished Service Award, Ontario Orthopaedic Association. For dedication and leadership in the Health Quality Ontario mandate to drive change on behalf of patients in Ontario. July 2015.

## Division of Plastic and Reconstructive Surgery

Dr. D. Anastakis	Professor
Dr. H. Baltzer	Assistant Professor
Dr. P. Bray	Assistant Professor
Dr. B. Graham	Assistant Professor
Dr. S. Hofer	Professor (Division Head)
Dr. S.J. McCabe	Associate Professor
Dr. C.B. Novak	Associate Professor
Dr. A.C. O'Neill	Assistant Professor
Dr. H.P. von Schroeder	Associate Professor
Dr. T. Zhong	Associate Professor

### Publication

- Anastakis DJ.** SIM-one - Ontario Simulation Network. First Simulation Champions: Courage, Caring, and Compassion. Wolters Kluwer, United States. Colette Foisy-Doll and Kim Leighton (eds). 2015.
- Baltzer HL, Spinner, RJ, Bishop, AT and Shin, AY.** Axillary Nerve Reconstruction: Sural Nerve Cable Graft Pull-Through Technique. *Techniques in Hand and Upper Extremity Surgery.* 2015 Dec; 19 (4): 168-75.
- Borschel GH, Hadlock T, Novak CB, Snyder-Warwick AK.** Facial Nerve Injury. *Nerve Surgery.* 2015; pp. 481-503. Thieme Medical Publishers, New York. Mackinnon SE (ed).
- Cheng H, Webster F, Platt J, Causarano N, Butler K, Baxter N, Pusic A, Zhong T.** Measuring the Success of Surgical Humanitarian Missions to Low and Middle Income Countries: Looking for Patient-Reported Outcomes. *Plast Surg Clinics in Surgery.* 2016 Jun; 1: 1032.
- Fox IK, Davidge KM, Novak CB, Hoben G, Kahn LC, Juknis N, Ruvinskaya R, Mackinnon SE.** Nerve Transfers to Restore Upper Extremity Function in Cervical Spinal Cord Injury: Update and Preliminary Outcomes. *Plastic & Reconstructive Surgery.* 2015 Oct; 136(4): 780-792.
- Goswani R, Anastakis D, Katz J, Davis.** A longitudinal study of pain, personality and brain plasticity following peripheral nerve injury. *PAIN.* 2016 Mar; 157(3): 729-39.
- Ho OA, Bagher S, Jaskolka J, Tan M, Butler K, O'Neill AC, Zhong T, Hofer SO.** Incidentalomas associated with abdominal and pelvic CT angiograms for abdominal-based breast free flap reconstruction. *J Plast Reconstr Aesthet Surg.* 2016 May; 69(5): e97-e102.
- Macadam SA, Zhong T, Weichman K, Papsdorf M, Lennox PA, Hazen A, Matros E, Disa J, Mehrara B, Pusic AL.** Quality of Life and Patient-Reported Outcomes in Breast Cancer Survivors: A Multicenter Comparison of Four Abdominally Based Autologous Reconstruction Methods. *Plast Reconstr Surg.* 2016 Mar; 137(3): 758-71.
- Mah E, Novak CB, Zhong T, Hofer SOP.** Skull Base Reconstruction. *Operative Microsurgery.* 2015. McGraw Hill, New York. Boyd B, Jones NF (eds).
- McClelland B, McCabe SJ, Haykal S, Borschel GH, Zuker RM, Levin S.** Proximal Forearm Transplantation for Below Elbow Amputations: Rationale and Surgical Technique. *Vascularized Composite Allotransplantation.* 2015 Jul; 2(1): 26-28.
- McEvenue G, Hofer SO, Lista F, Ahmad J.** Performing Ethical Research as a Plastic Surgeon in Private Practice: The Institutional Review Board. *Aesthet Surg J.* 2016 Apr; 36(4): 508-14.
- Metcalfe KA, Cil TD, Semple JL, Li LD, Bagher S, Zhong T, Virani S, Narod S, Pal T.** Long-Term Psychosocial Functioning in Women with Bilateral Prophylactic Mastectomy: Does Preservation of the Nipple-Areolar Complex Make a Difference? *Ann Surg Oncol.* 2015 Jul; 22(10): 3324-30.
- Novak CB, Neiduski RL.** Hand Therapy. Ch 39, 4th Edition, Volume 6, 2015. *Plastic Surgery.* Elsevier Saunders, London. Neligan PC, Chang J (eds).
- Novak CB.** Evaluation of the Patient with Nerve Injury or Nerve Compression. *Nerve Surgery.* 2015; pp. 41-58. Thieme Medical Publishers, New York. Mackinnon SE(ed).
- O'Neill AC, Aggarwal P, Keating A, Hofer SO.** Mesenchymal Stem Cell Stimulation of Breast Cancer Proliferation Is Dependent on Both Stem Cell Source and Tumor Type. *Plast Reconstr Surg.* 2015 Oct; 136(4): 116.
- O'Neill AC, Bagher S, Barandun M, Hofer SO, Zhong T.** Can the American College of Surgeons NSQIP surgical risk calculator identify patients at risk of complications following microsurgical breast reconstruction. *J Plast Reconstr Aesthet Surg.* 2016 Jun 1. pii: S1748-6815(16)30096-1.
- Platt J, Zhong T, Moineddin R, Booth GL, Eason AM, Fernandes K, Gozdyra P, Baxter NN.** Geographic Variation Immediate and Delayed Breast Reconstruction Utilization in Ontario, Canada and Plastic Surgeon Availability: A Population-Based Observational Study. *World J Surg.* 2015 Aug; 39(8): 1909-21.
- Roberts A, Baxter N, Camacho X, Lau C, Zhong T.** Once is Rarely Enough: A Population-Based Study of Reoperations after Postmastectomy Breast Reconstruction. *Ann Surg Oncol.* 2015 Oct; 22(10): 3302-3307.
- Roberts A, Sandhu L, Cil TD, Hofer SO, Zhong T.** Contralateral prophylactic mastectomy rate stable at major Canadian breast cancer center. *World J Clin Oncol.* 2016 Jun; 7(3): 302-7.



- Song D, Slater K, Papsdorf M, Van Laeken N, Zhong T, Hazen A, Vidal D, Macadam SA.** Autologous Breast Reconstruction in Women Older Than 65 Years Versus Women Younger Than 65 Years: A Multi-Center Analysis. *Ann Plast Surg.* 2016 Feb; 76(2):155-63.
- Townley WA, Hofer SOP.** Abdominal Wall Reconstruction. *Plastic and Reconstructive Surgery: Approaches and Techniques.* 2015; pp. 564-574. Wiley Blackwell. Ross D. Farhadieh, Neil W. Bulstrode, Sabrina Cugno (eds).
- Winocour S, Saksena A, Oh C, Wu PS, Laungani A, Baltzer HL, Saint-Cyr M.** A Systematic Review of Comparison of Autologous, Allogeneic and Synthetic Augmentation Grafts in Nipple Reconstruction. *Plast Reconstr Surg.* 2016 Jan; 137(1): 14e-23e.
- Zhong T, Hu J, Bagher S, Vo A, O'Neill AC, Butler K, Novak C, Hofer SOP, Metcalfe KA.** A Comparison of Psychological Response, Body Image, Sexuality, and Quality of Life between Immediate and Delayed Autologous Tissue Breast Reconstruction: A Prospective Long-term Outcome Study. *Plast Reconstr Surg.* 2016 Oct; 138(4):772-80.
- Zhong T, Temple-Oberle C, Hofer SO, Beber B, Semple J, Brown M, Macadam S, Lennox P, Panzarella T, McCarthy C, Baxter N, MCCAT Study Group.** Erratum to: The Multi Centre Canadian Acellular Dermal Matrix Trial (MCCAT): study protocol for a randomized controlled trial in implant-based breast reconstruction. *Trials.* 2016 Jan; 17:39.

## Invited Visits

- Anastakis, Dimitri.** Department of Biological Science, University of Windsor, Windsor, Ontario, September 14, 2015. Visiting Professor: Cortical Plasticity following Peripheral Nerve Injury, Repair and Rehabilitation.
- Anastakis, Dimitri.** Current Challenges in Canadian Health Care, Harvard School of Public Health, Boston, Massachusetts, December 5, 2015. Invited Speaker: 1) Provide an educator's perspective to the challenges and opportunities facing the Canadian Health care system. 2) Coordinated Continuing Professional Development aligned with system needs is critical to quality improvement and patient safety. 3) Simulation will play an important role in quality improvement and patient safety. 1
- Anastakis, Dimitri.** American Society for Peripheral Nerve, Scottsdale, Arizona, January 16, 2016. Presenter: Longitudinal study of pain, personality and plasticity following peripheral nerve injury.
- Anastakis, Dimitri.** Canadian Society of Hand Therapists, Toronto, Ontario, May 7, 2016. Invited Speaker: Peripheral Nerve Transfers in the Upper Extremity Define nerve transfers (NT).
- Baltzer, Heather Lucretia.** GAM/CanMedica Scholarship Recipient Address, Group for the Advancement of Microsurgery Annual Meeting, Calgary, Alberta, 2015. Speaker: Microsurgery in the Midwest.
- Baltzer, Heather Lucretia.** AHSS & ASSH Combined Meeting, Sydney, Australia, March 2016. Presenter: Upper Extremity Lymphedema Following Elective and Trauma Hand Surgery in Breast Cancer Survivors.
- Baltzer, Heather Lucretia.** CSSH the Canadian Society for Surgery of the Hand, Ottawa, Ontario, June 2016. A practical guide to hand surgery in breast cancer survivors.
- Hofer, Stefan.** London Breast Meeting 2015, London, United Kingdom, September 4th-5th, 2015. Invited Speaker: 1) Refinements of Autologous Reconstruction. 2) Pain management in autologous reconstruction.
- Hofer, Stefan.** British Association of Plastic Reconstructive and Aesthetic Surgeons (BAPRAS) Winter Scientific Meeting, Birmingham, London, United Kingdom, November 25th - 27th, 2015. Invited Professor: Reconstructive Surgery Trials Network (RSTN): Collaborative Research in Plastic Surgery; The North American Experience.
- Hofer, Stefan.** Mayo Clinic, Scottsdale, Arizona, March 14, 2016. Visiting Professor: 1) Sarcoma Reconstruction. 2) Improving aesthetic outcomes in autologous tissue breast reconstruction.
- Hofer, Stefan.** 4th International Breast Symposium Dusseldorf (IBSD), Dusseldorf, Germany, April 22nd - 23rd, 2016. Invited Speaker: 1) Anastomosis techniques in breast reconstruction. 2) Different Countries - Different Practice in Plastic Surgery.
- Hofer, Stefan.** 36th Congress of the Scandinavian Association of Plastic Surgeons, 15th Nordic Burn Meeting, and 8th Nordic Congress of Nurses in Plastic Surgery, Uppsala, Sweden, June 15th - 18th, 2016. Keynote Speaker: Establishing High Quality Academic Output from a Microsurgical Practice & Where Future Research Should be Focused.
- McCabe, Steven J.** Quebec Hand Society, Montreal, Quebec, 2015. Keynote Speaker: Strange Interactions in Workers' Compensation.
- Novak, Christine B.** 2016 Electives in Hand Surgery, American Society for Surgery of the Hand & American Society of Hand Therapists, New Orleans, Louisiana, January 30, 2016. Invited Speaker: 1) Therapeutic Management Following Nerve Transfer. 2) Nerve Injury & Recovery.
- Novak, Christine B.** American Association for Hand Surgery, Phoenix, Arizona, January 16, 2016. Invited Speaker: 1) Use of Peripheral Nerve Transfers in Tetraplegia, Transverse Myelitis and Other Central Nervous Syndrome Diseases. 2) Nerve Transfers: New Techniques and New Applications.
- Novak, Christine B.** American Society for Surgery of the Hand, 70th Annual Meeting, Seattle, Washington, September 10, 2015. Invited Speaker: Distal Motor & Sensory Nerve Transfers - A Changing Paradigm.
- von Schroeder, Herbert Peter.** American Association for Hand Surgery Annual Meeting, Scottsdale, Arizona, January 13, 2016. Presenter: Outcomes Following Scaphoid Non-union Reconstruction.
- Zhong, Toni.** Canadian Breast Cancer Foundation (CBCF) Annual Report 2015, Toronto, Ontario, August 11, 2015. Keynote Speaker: Breast Reconstruction Research.
- Zhong, Toni.** Interview with Vanessa Milne, Broadcasting Company CBC, Toronto, Ontario, October 27, 2015. Speaker: Next Generation of women surgeons.

**Zhong, Toni.** American Association of Plastic Surgeons (AAPS) Reconstructive Symposium, New York City, New York, May 19, 2016. Invited Speaker: MHS Pain Control: What's New in the Pain Control World? Best Practices for Perioperative issues.

## Research and Investigations

Development of a National Quality Improvement Program in Postmastectomy Breast Reconstruction to Optimize Patient-Centred Experience. *Canadian Institutes of Health Research (CIHR)*. Zhong T, Baxter N, Hofer S, Jones J, Macadam S, Metcalfe K, Panzarella T, Porter G, Pusic A, Roberts A, Semple J, Temple-Oberle C, Webster F, Wei A. (\$860,006.00 CAD Jul 2015 – Jun 2020).

Distal Radius Fracture Care in the Province of Ontario: Factors Impacting Management. *Physicians Services Incorporated Foundation*. Armstrong K, von Schroeder H, Zhong T, Baxter N, McCabe S. (\$18,500.00 CAD 2015 – 2016).

Establishing donor-specific transplantation tolerance by harnessing DN regulatory T cells. *Canadian Institutes for Health Research*. Zhang L, Zhong T, Zuniga-Pflucker J. (\$924,035.00 CAD Jul 2015 – Jun 2020).

Pre-consultation Educational Group Intervention to Improve Shared Decision Making for Postmastectomy Breast Reconstruction. *Canadian Breast Cancer Foundation – Ontario Region*. Zhong T, Baxter N, Beber B, Cheng T, Hoch J, Hofer S, Isaranuwachai W, Jones J, Metcalfe K, O'Neill A, Panzarella T, Platt J. (\$352,785.00 CAD Jul 2015 – Jun 2018).

## Honours and Awards

**Zhong, Toni:** George Armstrong Peters Prize, Department of Surgery, University of Toronto. Awarded to a young investigator who has shown outstanding productivity during his/her initial period as an independent investigator as evidenced by research publications in peer reviewed journals, grants held, and students trained. May 2016.

## Division of Thoracic Surgery

<b>Dr. M. Cypel</b>	Associate Professor
<b>Dr. G.E. Darling</b>	Professor
<b>Dr. M. dePerrot</b>	Associate Professor
<b>Dr. R.M. Gorczynski</b>	Professor
<b>Dr. S. Keshavjee</b>	Professor
<b>Dr. M Liu</b>	Professor
<b>Dr. A. Pierre</b>	Associate Professor
<b>Dr. T.K. Waddell</b>	Professor (Division Head)
<b>Dr. K. Yasufuku</b>	Associate Professor

## Publications

**Aga Z, Avelino J, Darling GE, Leung JJ.** An Unusual Case of Spontaneous Esophageal Rupture after Swallowing a Boneless Chicken Nugget. *Case Reports in Emergency Medicine*. 2016 Jan; <http://dx.doi.org/10.1155/2016/5971656>.

**Camargo JF, Resende M, Zamel R, Klement W, Bhimji A, Huibner S, Kumar D, Humar A, Jurisica I, Keshavjee S, Kaul R, Husain S.** Potential role of CC chemokine receptor 6 (CCR6) in prediction of late-onset CMV infection following solid organ transplant. *Clin Transplant*. 2015 Jun;29(6):492-8.

**Cameron JI, Chu LM, Matte A, Tomlinson G, Chan L, Thomas C, Friedrich JO, Mehta S, Lamontagne F, Levasseur M, Ferguson ND, Adhikari NK, Rudkowski JC, Meggison H, Skrobik Y, Flannery J, Bayley M, Batt J, dos Santos C, Abbey SE, Tan A, Lo V, Mathur S, Parotto M, Morris D, Flockhart L, Fan E, Lee CM, Wilcox ME, Ayas N, Choong K, Fowler R, Scales DC, Sinuff T, Cuthbertson BH, Rose L, Robles P, Burns S, Cypel M, Singer L, Chaparro C, Chow CW, Keshavjee S, Brochard L, Hébert P, Slutsky AS, Marshall JC, Cook D, Herridge MS, RECOVER Program Investigators (Phase 1: towards RECOVER), Canadian Critical Care Trials Group.** One-Year Outcomes in Caregivers of Critically Ill Patients. *N Engl J Med*. 2016 May; 374(19):1831-41.

**Casal RF, Lazarus DR, Eapen GA, Yasufuku K.** EBUS-TBNA: A decade of progress. *J Clin Trials*. 2016 Apr; 6: 264.

**Citerio G, Cypel M, Dobb GJ, Dominguez-Gil B, Frontera JA, Greer DM, Manara AR, Shemie SD, Smith M, Valenza F, Wijidicks EF.** Organ donation in adults: a critical care perspective. *Intensive Care Med*. 2016 Mar;42(3):305-15.

**Collaud S, de Perrot M.** Superior sulcus tumours, expert tips and tricks. 2015. In: *Core Topics in Thoracic Surgery* (Scarci M, Routledge T, Coonar A, Wells F (eds)). Cambridge University Press.

- Collaud S, Fadel E, Schirren J, Yokomise H, Bolukbas S, Darteville P, Keshavjee S, Waddell TK, de Perrot M.** En Bloc Resection of Pulmonary Sulcus non-small Cell Lung Cancer Invading the Spine: A Systematic Literature Review and Pooled Data Analysis. *Ann Surg.* 2015 Jul;262(1):184-8.
- Cypel M, Keshavjee S.** Extending the Donor Pool: Rehabilitation of Poor Organs. *Thorac Surg Clin.* 2015; 25(1):27-33.
- Cypel M, Keshavjee S.** Novel Technologies for Isolated Lung Perfusion: Beyond Lung Transplant. *Thorac Surg Clin.* 2016 May; 26(2):139-45.
- Cypel M, Levvey B, Van Raemdonck D, Erasmus M, Dark J, Love R, Mason D, Glanville AR, Chambers D, Edwards LB, Stehlik J, Hertz M, Whitson BA, Yusef RD, Puri V, Hopkins P, Snell G, Keshavjee S, International Society for Heart and Lung Transplantation.** International Society for Heart and Lung Transplantation Donation After Circulatory Death Registry Report. *J Heart Lung Transplant.* 2015 Oct; 34(10): 1278-82.
- Darling GE, Li F, Patsios D, Massey C, Wallis AG, Coate L, Keshavjee S, Pierre A, De Perrot M, Yasufuku K, Cypel M, Waddell T.** Neoadjuvant chemoradiation and surgery improves survival outcomes compared with definitive chemoradiation in the treatment of stage IIIA N2 non-small-cell lung cancer. *Eur J Cardiothorac Surg.* 2015 Nov; 48(5): 684-90.
- Donahoe L, Keshavjee S.** Video-assisted transcervical thymectomy for myasthenia gravis. *Ann Cardiothorac Surg.* 2015 Nov; 4(6):561-3.
- Hashimoto K, Kim H, Oishi H, Chen M, Iskender I, Sakamoto J, Ohsumi A, Guan Z, Hwang D, Waddell TK, Cypel M, Liu M, Keshavjee S.** Annexin V homodimer protects against ischemia reperfusion-induced acute lung injury in lung transplantation. *J Thorac Cardiovasc Surg.* 2016 Mar;151(3):861-8.
- Hosseini-Moghaddam SM, Chaparro C, Luong ML, Azad S, Singer LG, Mazzulli T, Rotstein C, Keshavjee S, Husain S.** The Effectiveness of Culture-Directed Preemptive anti-aspergillus treatment recipients at one year after transplant. *Transplantation.* 2015 Nov;99(11):2387-2393
- Jalil BA, Yasufuku K, Khan AM.** Uses, limitations, and complications of endobronchial ultrasound. *Proc (Bayl Univ Med Cent). Respirology.* 2015 Jul; 28(3): 325-30.
- Jamal AJ, Resende MR, Prochnow T, McGilvray I, Pilewski JM, Crespo MM, Singer LG, McCurry KR, Kolls JK, Keshavjee S, Conrad Liles, Husain S.** Simkania negevenis and acute cellular rejection in lung transplant recipients. *Clin Transplant.* 2015 Aug;29(8):705-11.
- Kato T, Wada H, Patel P, Hu HP, Lee D, Ujiie H, Hirohashi K, Nakajima T, Sato M, Kaji M, Kaga K, Matsui Y, Tsao MS, Yasufuku K.** Overexpression of KIF23 predicts clinical outcome in primary lung cancer patients. *Lung Cancer.* 2016 Feb; 92:53-61.
- Keshavjee S, Spatafora L.** Doctors of Thoracic Surgery: The Division of Thoracic Surgery at Toronto General Hospital. *Seminars in Thoracic and Cardiovascular Surgery.* 2015 Oct; 27(4):374-9.
- Kha LT, Hanneman K, Donahoe L, Chung T, Pierre AF, Yasufuku K, Keshavjee S, Mayo JR, Paul NS, Nguyen ET.** Safety and Efficacy of Modified Preoperative Lung Nodule Microcoil Localization Without Pleural Marking: A Pilot Study. *J Thorac Imaging.* 2016 Jan; 31(1): 15-22.
- Kidane B, Hirpara D, Yasufuku K.** Photodynamic Therapy in Non-Gastrointestinal Thoracic Malignancies. *Int J Mol Sci.* 2016 Jan; 17(1):135.
- Kidane B, Toyooka S, Yasufuku K.** MDT lung cancer care: Input from the Surgical Oncologist. *Respirology.* 2015 Oct; 20(7): 1023-33.
- Kidane B, Yasufuku K.** Advances in Image-Guided Thoracic Surgery. *Thorac Surg Clin.* 2016 May; 26(2):129-38.
- Lee D, Zhao J, Yang H, Xu S, Kim H, Pacheco S, Keshavjee S, Liu M.** Effective delivery of a rationally designed intracellular peptide drug with gold nanoparticle-peptide hybrids. *Nanoscale.* 2015 Aug;7(29):12356-60.
- Leung JH, Chang J, Foltz E, Bell SM, Pi C, Azad S, Everett ML, Holzknrecht ZE, Sanders NL, Parker W, Davis D, Keshavjee S, Lin SS.** Clearance of bile and trypsin in rat lungs following aspiration of human gastric fluid. *Experimental Lung Research.* 2016 Feb 42(1): 37-43.
- Linacre V, Cypel M, Machuca T, Nakajima D, Hashimoto K, Zamel R, Chen M, Iskender I, Dos Santos P, Waddell TK, Liu M, Keshavjee S.** Importance of left atrial pressure during ex vivo lung perfusion. *J Heart Lung Transplant.* 2016 Jun; 35(6): 808-14.
- Machuca TN, Cypel M, Keshavjee S.** Cardiopulmonary bypass and Extracorporeal life Support for Emergent Intraoperative Thoracic Situations. *Thorac Surg Clin.* 2015 August; 25(3):325-34.
- Matsuda Y, Wang X, Oishi H, Guan Z, Saito M, Liu M, Keshavjee S, Chow CW.** Spleen Tyrosine Kinase Modulates Fibrous Airway Obliteration and Associated Lymphoid Neogenesis After Transplantation. *Am J Transplant.* 2016 Jan;16(1):342-52.
- McVey R, Goldenberg M, Bernardini M, Yasufuku K, Queresy F, Finelli A, Pace K, Lee JY.** Baseline Laparoscopic Skill May Predict Baseline Robotic Skill and Early Robotic Surgery Learning Curve. *J Endourol.* 2016 May; 30(5): 588.
- Mudambi L, Eapen GA, Yasufuku K.** Just Because We Can, Does Not Always Mean We Should. *Bronchology Interv Pulmonol.* 2016 Jan; 23(1): 1-3.
- Nakajima D, Cypel M, Bonato R, Machuca TN, Iskender I, Hashimoto K, Linacre V, Chen M, Coutinho R, Azad S, Martinu T, Waddell TK, Hwang DM, Husain S, Liu M, Keshavjee S.** Ex Vivo Perfusion Treatment of Infection in Human Donor Lungs. *Am J Transplant.* 2016 Apr;16(4):1229-37.
- Nakajima T, Cypel M, de Perrot M, Pierre A, Waddell T, Singer L, Roberts H, Keshavjee S, Yasufuku K.** Retrospective analysis of lung transplant recipients found to have unexpected lung cancer in explanted lungs. *Semin Thorac Cardiovasc Surg.* 2015 Spring; 27(1): 9-14.
- Nakajima T, Geddie W, Anayama T, Ko HM, da Cunha Santos G, Boerner S, Wang T, Wang YH, Li M, Pham NA, Tsao MS, Yasufuku K.** Patient-derived tumor xenograft models established from samples obtained by endobronchial ultrasound-guided transbronchial needle aspiration. *Lung Cancer.* 2015 Aug; 89(2): 110-4.
- Nakajima T, Shingyoji M, Anayama T, Kimura H, Yasufuku K, Yoshino I.** Spectrum analysis of endobronchial ultrasound radiofrequency of lymph nodes in patients with lung cancer. *Chest.* 2016 Jun;149(6):1393-9.



- Oishi H, Martinu T, Sato M, Matsuda Y, Hirayama S, Juvet SC, Guan Z, Saito T, Cypel M, Hwang DM, Keller TL, Whitman MR, Liu M, Keshavjee S.** Halofuginone Treatment reduces interleukin-17A and ameliorates features of chronic lung allograft dysfunction in a mouse orthotopic lung transplant model. *J Heart Lung Transplant.* 2016 Apr;35(4):518-27.
- Reck Dos Santos P, Sakamoto J, Chen M, Linacre V, Arce C, Liu M, Waddell TK, Keshavjee S, Cypel M.** Modified In Vivo Lung Perfusion for Local Chemotherapy: A Preclinical Study With Doxorubicin. *Ann Thorac Surg.* 2016 Jun;101(6):2132-40.
- Reeb J, Keshavjee S, Cypel M.** Expanding the lung donor pool: advancements and emerging pathways. *Curr Opin Organ Transplant.* 2015 Oct;20(5):498-505.
- Reeb J, Keshavjee S, Cypel M.** Successful lung transplantation from a donation after cardiocirculatory death donor taking more than 120 minutes to cardiac arrest after withdrawal of life support therapies. *J Heart Lung Transplant.* 2016 Feb;35(2):25
- Rice, TW, Ishwara H, Hofstetter W, Kesler K, Law S, Lerut T, Allen M, Darling GE, Luketich J, Duranceau A, Apperson C.** Esophageal Cancer: Associations with pN+ Lymph Node Metastases. *Annals of Surgery.* 2016 Jan 7. [Epub ahead of print]
- Sacher AG, Le LW, Lara-Guerra H, Waddell TK, Sakashita S, Chen Z, Kim L, Zhang T, Kamel-Reid S, Salvarrey A, Darling G, Yasufuku K, Keshavjee S, De Perrot M, Shepherd FA, Liu G, Tsao M, Leighl NB.** A window of opportunity study of potential tumor and soluble biomarkers of response to preoperative erlotinib in early stage non-small cell lung cancer. *Oncotarget.* 2016 May 3;7(18):25632-9.
- Sage AT, Bai X, Cypel M, Liu M, Keshavjee S, Kelley SO.** Using the inherent chemistry of the endothelin-1 peptide to develop a rapid assay for pre-transplant donor lung assessment. *Analyst.* 2015 Nov;140(24):8092-6.
- Sage AT, Besant JD, Mahmoudian L, Poudineh M, Bai X, Zamel R, Hsin M, Sargent EH, Cypel M, Liu M, Keshavjee S, Kelley SO.** Fractal circuit sensors enable rapid quantification of biomarkers for donor lung assessment for transplantation. *Science Advances.* 2015 Aug 28;1(7):e1500417.
- Saito T, Horie M, Sato M, Nakajima D, Shoushtarizadeh H, Binnie M, Azad S, Hwang DM, Machuca TN, Waddell TK, Singer LG, Cypel M, Liu M, Paul NS, Keshavjee S.** Low-dose computed tomography volumetry for subtyping chronic lung allograft dysfunction. *J Heart Lung Transplant.* 2016 Jan; 35(1): 59-66.
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**Zhao TD, Chu L, Lin K, Granton E, Yin L, Peng J, Hsin M, Wu L, Yu A, Waddell T, Keshavjee S, Granton J, de Perrot M.** A Biochemical Approach to Understand the Pathogenesis of Advanced Pulmonary Arterial Hypertension: Metabolomic Profiles of Arginine, Sphingosine-1-Phosphate, and Heme of Human Lung. *PLoS One*. 2015 Aug 28;10(8):e0134958.

**Zhao YD, Peng J, Granton E, Lin K, Lu C, Wu L, Machuca T, Waddell TK, Keshavjee S, de Perrot M.** Pulmonary vascular changes 22 years after single lung transplantation for pulmonary arterial hypertension: a case report with molecular and pathological analysis. 2015 Dec; *Pulm Circ*. 5(4):739-43.

**Zheng J, Muhanna N, De Souza R, Wada H, Chan H, Akens MK, Anayama T, Yasufuku K, Serra S, Irish J, Allen C, Jaffray D.** A multimodal nano agent for image-guided cancer surgery. *Biomaterials*. 2015 Oct; 67: 160-8.

## Invited Visits

**Cypel, Marcelo.** American College of Chest Physicians, Montreal, Quebec, July 2015. Invited Speaker: New Avenues in Ex vivo Lung Perfusion.

**Cypel, Marcelo.** American Society of Transplantation Annual Meeting, Boston, 2016. Invited Speaker: Running and Organ Repair Center.

**Cypel, Marcelo.** Dutch Society of Organ Transplantation, Groningen, Netherlands, March 2016. Distinguished Speaker: ExtraCorporeal Lung Perfusion.

**Cypel, Marcelo.** American Association for Thoracic Surgery Annual Meeting, Maryland, May 2016. Invited Speaker: 1) Outcomes with Bridge to Transplant: Times are Changing. 2) EVLP for the Unusable Lungs: What is on the Immediate Horizon.

**Keshavjee, Shaf.** Medical Grand Rounds, Mayo Clinic, Scottsdale, Arizona, August 7, 2015. August 7, 2015. Invited Lecturer: Ex vivo Repair of Organs.

**Keshavjee, Shaf.** University of Western Ontario, London, Ontario, September 26, 2015. Keynote Speaker: Organs by Design: The Future of Transplantation London-Toronto Lung Research Symposium.

**Keshavjee, Shaf.** 29th Annual Meeting European Association for Cardiothoracic Surgery, Amsterdam, Netherlands, October 5, 2015. Invited Speaker: Extracorporeal Therapies: There is much more beyond ECMO.

**Keshavjee, Shaf.** Joel Cooper Award Lecture, Canadian Society of Transplantation, Vancouver, British Columbia, October 9, 2015. Invited Lecturer: Then, Now and the Future of Lung Transplantation.

**Keshavjee, Shaf.** American Association for Thoracic Surgery: Focus on Thoracic Surgery, Boston, October 21, 2015. Invited Speaker: 1) Alternative approaches for extended pulmonary resections. 2) Carinal resection. 3) Pulmonary and atrial resection and reconstruction for sarcoma with intra cardiac extension.

**Keshavjee, Shaf.** The Walrus Talks-Innovation, Halifax, Nova Scotia, October 21, 2015. Invited Speaker: Manufacturing Super Organs for Transplantation.

**Keshavjee, Shaf.** 25th Congress Association of Thoracic and Cardiovascular Surgeons of Asia, Cebu, Philippines, November 14, 2015. Invited Lecturer: 1) Surgical Options for the Failing Lung, 2) Recent Developments in Tracheal Replacement Therapies.

**Keshavjee, Shaf.** University of Helsinki, Helsinki, Finland, November 19, 2015. Invited Lecturer: Lung transplantation: Lifesaving therapy for end stage lung disease.

**Keshavjee, Shaf.** William Harvey Vascular Research Institute, Royal Society of Medicine, London, United Kingdom, March 11, 2016. Invited Speaker: Ex vivo lung perfusion to improve outcomes for lung transplant in pulmonary arterial hypertension.

**Keshavjee, Shaf.** National Institute of Health NHLBI Workshop: Animal Models of lung transplant research, Toronto, Ontario, March 15, 2016. Invited Speaker: Animal to human models to study lung transplantation: the translational pathway.

**Keshavjee, Shaf.** Asian Society for Cardiovascular and Thoracic Surgery, Taipei, Taiwan, Province Of China, April 6, 2016. Invited Speaker: Lung Replacement Therapies: Lung Transplant and Extracorporeal Lung Support.

**Keshavjee, Shaf.** International Society for Heart and Lung Transplantation, Washington, April 26, 2016. Invited Speaker: The Future of Lung Repair: Cell and Gene Interventions During EVLP.

**Keshavjee, Shaf.** 96th Annual Meeting American Association for Thoracic Surgery, Baltimore, May 14, 2016. Invited Speaker: PA-LA Novalung bridge to transplant. How I do it.

**Yasufuku, Kazuhiro.** American Association of Bronchology and Interventional Pulmonology Webinar, August 3, 2015. Invited Speaker: Practical Tips to Improve your EBUS-TBNA.

**Yasufuku, Kazuhiro.** The American College of Chest Physicians International Conference 2015, Montreal, Quebec, October 26, 2015. Invited Speaker: Panel Discussion: Fibrinolytics and DNase for pleural infection - controversies and practical management. Surgical Management of Pleural Space Infections.

**Yasufuku, Kazuhiro.** Endobronchial Ultrasound: Safe and Effective Use Training Course, Centre de Recherche du CHUM, Montreal, Quebec, November 13, 2015. Invited Speaker: 1) Mediastinal Anatomy. 2) Specimen Sampling, Handling and Preparation for Sarcoidosis, Lymphomas, Small Lymph Nodes and Molecular Markers. 3) EBUS-TBNA.

**Yasufuku, Kazuhiro.** 6th Asia-Pacific Congress of Bronchology and Interventional Pulmonology, Bangkok, Thailand, November 27, 2015. Invited Speaker: 1) Treatment of early stage lung cancer in high risk patients: Lobectomy vs sublobar resection. 2) Staging of lung cancer: Minimally invasive methods in mediastinal lymph node sampling.

**Yasufuku, Kazuhiro.** International Symposium on Respiratory Endoscopy and Lung Cancer, 2015 Annual Meeting, Shanghai, China, December 12, 2015. Invited Speaker: The Application Progress of EBUS.

**Yasufuku, Kazuhiro.** STS/CHEST: Primer on Advanced and Therapeutic Bronchoscopy: Theory and Hands-on Session, The Society for Thoracic Surgeons Annual Meeting, Phoenix, Arizona, January 23–24, 2016. Invited Speaker: 1) EBUS Mediastinal Anatomy. 2) EBUS/TBNA Airway Models. 3) General Thoracic Track III: OR of the Future. Thoracic Hybrid Room of the Future.

**Yasufuku, Kazuhiro.** CHEST Guidelines Webinar Series, February 22, 2016. Invited Speaker: Technical Aspects of EBUS-TBNA: What do we know today.

**Yasufuku, Kazuhiro.** 24th Annual Meeting of Asian Society for Cardiovascular and Thoracic Surgery, Taipei, Taiwan, Province Of China, April 7, 2016. Invited Speaker: Management of the Non-palpable Lung Nodule – Image Guided Minimally Invasive Surgical Techniques.

**Yasufuku, Kazuhiro.** 19th World Congress for Bronchology and Interventional Pulmonology, Florence, Italy, May 9–11, 2016. Invited Speaker: 1) Endobronchial Ultrasound: A Comprehensive Review. What is New in EBUS Technology? 2) Are we ready to implement lung cancer screening? Thoracic surgical considerations and outcomes in lung cancer screening program. 3) Controversies in mediastinal staging. The expanded role of EBUS-TBNA and EUS-FNA for lymph node staging in lung cancer.

## Research and Investigations

A comparison of efficacy of awake thoracoscopy and video-assisted thoracoscopic surgery (VATS) in the diagnosis of exudative pleural effusion. *Yasufuku K.* (2016).

Establishment of a renewable resource of tumour models for research from tumour biopsies of thoracic cancer patients. *Yasufuku K.* (2015).

Immunoisolation of Lung Grafts Using Endothelial Nano-barrier During Ex Vivo Lung Perfusion. *American Association for Thoracic Surgery. Cypel M.* (\$200,000.00 USD Jul 2015 – Jul 2017).

Measurement of Extravascular Lung Water to Predict Primary Graft Dysfunction and Outcomes Following Lung Transplant. *Ontario Thoracic Society. Cypel M.* (\$48,000.00 CAD Jul 2015 – Jul 2016).

Medicine by Design - Lead investigator for the Organs by Design pillar. *Canada First Research Excellence Fund. Keshavjee S.* (\$113,000,000.00 Jul 2015 – Jul 2022).

Medicine by Design. Co-investigator in the Organ by Design Section. *Federal Government of Canada, Canada First Research Excellence Fund (CFREF). Cypel M.* (\$114,000,000.00 CAD 2015 – 2020).

Research in Thoracic Intervention. Olympus Medical Systems Corp/UHN. *Yasufuku K.* (\$250,000.00 CAD Feb 2016 – Jan 2017).

Robotic thoracic surgery for early stage lung cancer: The first 100 cases in Canada. *Yasufuku K.* (2015).

Transplant Centre. *Canadian Cystic Fibrosis Foundation. Singer L, Keshavjee S.* (\$61,481.00 CAD Apr 2016 – Mar 2017).

Ultra-minimally invasive multi-modal image guided therapeutics of lung cancer. *Canadian Cancer Society. Yasufuku K.* (\$1,250,000.00 CAD Feb 2016 – Jan 2021).

## Division of Urology

<b>Dr. D.S. Elterman</b>	Assistant Professor
<b>Dr. A. Finelli</b>	Associate Professor (Division Head)
<b>Dr. N.E. Fleshner</b>	Professor
<b>Dr. R. Hamilton</b>	Assistant Professor
<b>Dr. M.M. Hassouna</b>	Professor
<b>Dr. M.A.S. Jewett</b>	Professor
<b>Dr. G. Kulkarni</b>	Assistant Professor
<b>Dr. A. Matthew</b>	Assistant Professor
<b>Dr. S.B. Radomski</b>	Professor
<b>Dr. M. Robinette</b>	Associate Professor
<b>Dr. J. Trachtenberg</b>	Professor

## Publications

**Ahmad AE, Finelli A.** Should prebiopsy multiparametric magnetic resonance imaging be offered to all biopsy-naïve men undergoing prostate biopsy? *Eur Urol.* 2016 Mar; 69(3): 426–7.

**Al Harbi F, Tabatabaefar L, Jewett MA, Finelli A, O'Malley M, Atri M.** Enhancement Threshold of Small (< 4 cm) Solid Renal Masses on CT. *AJR Am J Roentgenol.* 2016 Mar; 206(3):554–8.



- Alibhai SM, Breunis H, Timilshina N, Naglie G, Tannock I, Krahn M, Warde P, Fleshner NE, Canning SD, Tomlinson G.** Long-term impact of androgen-deprivation therapy on physical function and quality of life. *Cancer*. 2015 Jul; 121(14): 2350-7.
- Atri M, Tabatabaeifar L, Jang HJ, Finelli A, Moshonov H, Jewett M.** Accuracy of contrast-enhanced US for differentiating benign from malignant solid small renal masses. *Radiology*. 2015 Sept; 276(3): 900-8.
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- Barbera L, Zwaal C, Elterman DS, McPherson K, Wolfman W, Katz A, Matthew A.** Interventions to Address Sexual Problems in People with Cancer. *Cancer Care Ontario. Clinical Care Guidelines*. 2016 Apr; <https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=359504>.
- Bhatt JR, Jewett MAS, Richard P, Kawaguchi S, Timilshina N, Evans A, Shabbir A, Finelli A.** Multilocular Cystic Renal Cell Carcinoma: Pathologic T-staging makes no difference to favourable outcomes and should be reclassified. *Journal of Urology*. 2016 Jun 21. pii: S0022-5347(16)30722-4.
- Bhatt JR, Richard PO, Kim NS, Finelli A, Manickavachagam K, Legere L, Evanes A, Pei Y, Sykes J, Jhaveri K, Jewett MAS.** Natural History of Renal Angiomyolipoma (AML): Most Patients with Large AMLs >4 cm Can Be Offered Active Surveillance as an Initial Management Strategy. *European Urology*. 2016 Jul;70(1):85-90.
- Bhindi B, Hermanns T, Wei Y, Yu J, Richard PO, Wettstein MS, Templeton A, Li K, Sridhar SS, Jewett MA, Fleshner NE, Zlotta AR, Kulkarni GS.** Identification of the Best Complete Blood Count - based Predictors for Bladder Cancer Outcomes in Patients Undergoing Radical Cystectomy. *Br J Cancer*. 2016 Jan 19;114(2):207-12.
- Bhindi B, Xie WY, Kulkarni GS, Hamilton RJ, Nesbitt M, Finelli A, Fleshner N, Zlotta A, Evans A, van der Kwast T, Alibhai SM, Trachtenberg J.** Influence of Metabolic syndrome on prostate cancer stage, grade and overall recurrence risk in men undergoing radical prostatectomy. *Urology*. 2016 Mar. pii S0090-4295(16).
- Biggs CN, Siddiqui KM, Alp-Zahrani AA, Pardhan S, Brett SI, Guo QQ, Yang J, Wolf P, Power NE, Durgfee PN, MacMillan CD, Townson JL, Brinker JC, Fleshner NE, Izawa JI, Chambers AF, Chin JL, Leonge HS.** Prostate extracellular vesicles in patient plasma as a liquid biopsy for prostate cancer using nanoscale flow cytometry. *Oncotarget*. 2016 Feb 23;7(8):8839-49.
- Boström PJ, Mirtti T, van Rhijn B, Fleshner NE, Finelli A, Laato M, Jewett MA, Moore MJ, Sridhar S, Nurmi M, Tannock IF, Zlotta AR.** Benefit of Adjuvant Chemotherapy and Pelvic Lymph Node Dissection in pT3 and Node Positive Bladder Cancer Patients Treated with Radical Cystectomy. *Bl Cancer*. 2016 Apr; 2(2): 263-272.
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- Butz H, Nofach-Mozes R, Ding Q, Khella HWZ, Szabo PM, Jewett MAS, Finelli A, Lee J, Ordon M, Stewart R, Kreylov S, Yousef, G.** Exosomal miRNAs are diagnostic biomarkers and can mediate cell-cell communication in renal cell carcinoma. *EU Focus*. 2016 Jun; 2(2): 210-218.
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- Eapen RS, Radomski SB.** Gender differences in overactive bladder. *Canadian Journal of Urology*. 2016 Feb; 23(1): 2-9.
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- Elterman DS.** How I Do It: GreenLight XPS 180W photoselective vaporization of the prostate. *Can J Urology*. 2015; 22(3): 7836-43.
- Fleshner NE.** Salvage HIFU for biopsy confirmed local prostate cancer recurrence after radical prostatectomy and radiation therapy: case report and literature review. *Canadian Urology Association Journal*. 2015 Sept-Oct; 9: 9-10.
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- Matthew A.** Core principles of sexual health treatments in cancer for men. *Current Opinion in Support and Palliative Care*. 2016 Mar;10(1):38-43.
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**Zapata D, Howard LE, Allott EH, Hamilton RJ, Goldberg K, Freedland SJ.** Is PSA related to serum cholesterol and does the relationship differ between black and white men? *Prostate*. 2015 Dec; 75(16): 1877-85.

**Zariffa J, Grouza V, Popovic MR, Hassouna MM.** A phase-based electrical plethysmography approach to bladder volume measurement. *Annals of Biomedical Engineering*. 2016 Apr; 44(4): 1299-1309.

## Invited Visits

**Elterman, Dean S.** Featured Documentary, CBC, Keeping Canada Alive, October 4, 2015. Media Appearances: <http://www.cbc.ca/mediacentre/keeping-canada-alive.html>.

**Elterman, Dean S.** 35th Congress of the Societe Internationale D'Urologie, Melbourne, Australia, October 15, 2015. Invited Speaker: Setting a New Standard in Pelvic Prolapse: Minimally Invasive Sacrocolpopexy.

**Elterman, Dean S.** CBC News, Toronto, Ontario, March 17, 2016. Invited Speaker: Testosterone deficiency syndrome can come with 'significant' symptoms. <http://www.cbc.ca/news/health/testosterone-deficiency-syndrome-1.3495817>

**Finelli, Antonio.** Prostate Cancer World Congress, Cairns, Australia, August 19, 2015. Visiting Professor: 1) Robotic prostatectomy masterclass - Vesico-urethral anastomosis. 2) Active surveillance patterns of care in Canada. 3) New PSA testing recommendations - Canadian impact. 4) Long term safety of 5ARIs in active surveillance.

**Finelli, Antonio.** World Urology Oncology Federation, Melbourne, Australia, October 15, 2015. Invited Lecturer: Radical nephrectomy for T1 hilar tumors.

**Finelli, Antonio.** Societe Internationale D'Urologie, Melbourne, Australia, October 18, 2015. Invited Lecturer: Guidelines in the management of CRPC.

**Finelli, Antonio.** ASCO 2016, Illinois, January 2016. Presenter: 5 -reductase inhibitors and the risk of grade reclassification for men with long-term follow-up on active surveillance for prostate cancer.

**Finelli, Antonio.** European Association of Urologists, Germany, March 14, 2016. Invited Speaker: 1) Active surveillance for T1b renal masses: Role of biopsies and limits. 2) Use of initial active surveillance among men with low-risk prostate cancer.

**Finelli, Antonio.** Society of Urologic Oncology, United States, May 6-7, 2015. Speaker: 1) Identifying the patient who benefits of lymphadenectomy at the time of prostatectomy.

**Finelli, Antonio.** American Urological Association, California, May 6-9, 2016. Presenter: 1) The natural history of renal function after surgical management of renal cell carcinoma: results from the Canadian Kidney Cancer information system. 2) A comprehensive competing risk calculator for patients with cortical renal masses 10cm: A novel clinical decision aid for shared decision-making regarding individualized treatment selection. 3) Canadian consensus guidelines for sexual rehabilitation following prostate cancer treatment. 4) Chemoprevention in kidney cancer: survival outcomes in diabetics. 5) A phase II, randomized, open label study of neoadjuvant degarelix versus LHRH agonist in prostate cancer patients prior to radical prostatectomy. 6) The role of prostate cancer antigen 3 (PCA3) test and multi-parametric prostatic magnetic resonance imaging (MPMRI) among patients with prior negative biopsy: correlation with radical prostatectomy pathology. 7) Validating the bladder utility symptom scale (BUSS); A novel patient reported outcome quality. 8) Long-term oncologic outcomes of radical prostatectomy in a large cohort of patients on active surveillance. 9) Does perineural invasion on initial prostate biopsy predict higher risk of progression in patients on active surveillance for prostate cancer? 10) Is re-section necessary? Re-section of non-muscle invasive bladder cancer at a tertiary care centre. 11) Outcomes of radiation following expectant management for low risk, localized prostate cancer.

**Finelli, Antonio.** UniveritatsSpital, Zurich, Switzerland, June 15, 2016. Visiting Professor: An update on active surveillance for prostate cancer.

**Finelli, Antonio.** Swiss Urologic National Meeting, Switzerland, June 16, 2016. Invited Speaker: Current challenges in the diagnosis and management of small renal masses.

**Finelli, Antonio.** ASCO 2016, Illinois, June 2016. Presenter: Toronto, Canada Effect of abiraterone acetate (AA) and enzalutamide (EZ) administration on chemotherapy-naïve metastatic castration-resistant prostate cancer (CN-mCRPC) patient's symptom burden.

**Fleshner, Neil.** American Urology Association, San Diego, California, May 2016. Presenter: 1) Is re-resection necessary? Re-resection of non-muscle invasive bladder cancer at a tertiary care centre. 2) Molecular tumor grading of non muscle invasive bladder cancer based on whole transcriptome analysis. 3) The role of prostate cancer antigen 3 (PCA3) test and multi-parametric prostatic magnetic resonance imaging (MPMRI) among patients with prior negative biopsy: correlation with radical prostatectomy pathology. 4) Does perineural invasion on initial prostate biopsy predict higher risk of progression in patient on active surveillance for prostate cancer? 5) Long term oncologic outcomes of radical prostatectomy in a large cohort of patients on active surveillance. 6) Propensity-matched comparison of survival outcomes in patients undergoing radical cystectomy versus bladder preserving trimodal therapy. 7) A Phase II, randomized, open label study of neoadjuvant degarelix versus LHRH agonist in prostate cancer patients prior to radical prostatectomy.

**Fleshner, Neil.** Canadian Urology Association, Vancouver, British Columbia, June 2016. Presenter: 1) Survival outcomes of trimodal therapy compared with radical cystectomy for muscle-invasive bladder cancer: A propensity score-matched analysis of survival outcomes. 2) Metformin use does not impact disease-specific mortality among diabetic patients with non-muscle invasive bladder cancer: A population-based analysis. 3) Quality assessment of the Canadian Prostate Cancer Biomarker Network platform using the validated prostate cancer biomarker nuclear factor-kappa B. 4) What false negative rate are active surveillance patients willing to accept in order to avoid prostate biopsy? 5) Precent Gleason pattern 4 on prostate biopsy in patients with Gleason 7 (3+4) prostate cancer does not predict upstaging to T3/T4 at radical prostatectomy. 6) Prostate stereometry by transrectal ultrasonography and magnetic resonance imaging is significantly correlated to the actual volume measure after radical prostatectomy. 7) The burden of symptomatic skeletal events in castrate-resistant prostate cancer patients with bone metastases at three Canadian uro-oncology centres.

**Hamilton, Robert.** Canadian Urological Association CME Program, Niagara On The Lake, Ontario, September 12, 2015. Presenter: Managing bone metastases in CRPC: The role of radiopharmaceuticals.

**Hassouna, Magdy M.** North America Neuromodulation Society, Las Vegas, Nevada, December 10-11, 2015. Invited Speaker: 1) Neuromodulation and Female Sexual Dysfunction. 2) Sacral Neuromodulation for GU pain Syndrome. 3) Tibial Nerve Stimulation for Urinary Incontinence.

**Hassouna, Magdy M.** Neuromodulation: the Science, San Francisco, California, May 25, 2016. Distinguished Speaker: Sacral Neuromodulation in Pelvic Disorders: A Critical Appraisal preparation of the talk, scouring the literature and preparing a summary of the latest in Neuromodulation.

**Jewett, Michael A. S.** Dr. Ralph V. Clayman Fustschrift Lecture, Newport Coast, California, August 21, 2015. Presenter: Evolving Management of Early Stage Kidney Cancer: from Pioneering MIS for All to Personalizing Patient Care by Tumor Type.

**Jewett, Michael A. S.** Helsinki National Testis Cancer Meeting, Helsinki, Finland, September 11, 2015. Presenter: Treatment strategies on testicular cancer in Canada.

**Jewett, Michael A. S.** Ohio State University of Columbus, Columbus, Ohio, September 18, 2015. Presenter: 1) Evolving Management of Early Stage Kidney Cancer: Personalizing Patient Care by Tumor Type. 2) Update on Treatment Strategies for Testicular Cancer.

**Jewett, Michael A. S.** World Urological Oncology Federation, Melbourne, Australia, October 15-17, 2015. Invited Speaker: 1) Renal Biopsies: Indications, Techniques, Safety, Accuracy/Results and Impact on Treatment Decision-Making. 2) Global Perspectives: Management of Renal Mass. 3) Optional Templates for RPLND: Are Modified Templates Always Oncologically Safe? 4) Non-Risk Adapted Surveillance for all Clinical Stage One Testicular Cancer.

**Jewett, Michael A. S.** Memorial Sloan Kettering Cancer Center, New York, New York, October 30, 2015. Invited Speaker: Can we personalize early-stage kidney cancer care? Observations from active surveillance of SRM.

**Matthew, Andrew.** Canadian Kidney Cancer Forum, Ontario, February 6, 2016. Invited Speaker: Patient Reported Outcomes in Kidney Cancer Survivors: Adding an important perspective to the CKCis database.

**Matthew, Andrew.** Canadian Association of Psychosocial Oncology (CAPO), Nova Scotia, May 13, 2016. Speaker: An electronic treatment decision support tool for prostate cancer patients: a feasibility study.

**Trachtenberg, John.** Societe Internationale d'Urologie, Melbourne, Australia, October 15, 2015. Invited Speaker: Surveillance after focal therapy.

## Research and Investigations

A Phase II study, randomized, controlled, efficacy assessor blinded, multi-center, international prospective study to assess the safety and effectiveness of Medi-Tate i-Temporary Implantable Nitinol device, (iTIND) in subjects with symptomatic Benign Prostatic Hyperplasia (BPH). *Medi-Tate. Elterman DS.* (2015).

A Phase III Surgical Trial to Evaluate the Benefit of a Standard Versus an Extended Lymphadenectomy Performed at Time of Radical Cystectomy for Muscle Invasive Urothelial Cancer. *SWOG/NCIC CTG. Kulkarni G.* (2015).

A Prospective Non-Interventional Registry Study of Patients Initiating a Course of Drug Therapy for Overactive Bladder (OAB) study. *Astellas Pharma Inc. Elterman D, Radomski S.* (Aug 2015 – Aug 2016).

Applying radiomics to predict pathology of residual retroperitoneal nodal masses in metastatic germ cell tumors following platinum based chemotherapy. *Aflac Adolescent and Young Adult Oncology. Lewin J, Bedard P, Metser U, O'Malley M, Jewett M, Hamilton R, Moore M, Dufort P, Halankar J, Gupta A, Lorenzo A, Traubici J, Atenafu E.* (\$80,224.00 USD Sept 2015 – Sept 2017).

Canadian Real Life Evaluation of the Effect of Diet and Exercise in Prostate Cancer Patients Managed with Lupron: (CRONOS II). *AbbVie Corporation. Kulkarni G.* (2015).

Effectiveness of the Intone Pelvic Floor Device for Urinary Incontinence. *InControl Medical Inc. Elterman D, Radomski S, Hassouna M.* (Aug 2015 – Aug 2016).

Enzalutamide in first line androgen deprivation therapy for metastatic prostate cancer: A randomized phase III trial. *NCIC. Finelli A.* (\$100,000.00 CAD Aug 2015 – Jul 2017).

Impact of Positron Emission Tomography (PET) Imaging in Muscle-invasive Urothelial Carcinoma of the Bladder Staging. *Ontario Clinical Oncology Group. Kulkarni G.* (2016).

LIGAND Study: Lipitor and biGuanide to ANdrogen Delay. *Princess Margaret Cancer Foundation. Hamilton R.* (2015).

Molecular characterization and behavior of tumors arising in patients taking 5-alpha reductase inhibitors. Prostate Cancer Canada. Hamilton R. (\$199,961.00 CAD Jul 2015 – Jun 2017).

Pharmacoeconomics Study of the GreenLight XPS/Moxy Device. *American Medical Systems. Elterman DS.* (\$100,000.00 USD Aug 2015 – May 2016).

Prostate biopsy avoidance using combination PCA3 and multi-parametric magnetic resonance scanning in selected patient cohorts. *Astellas Prostate Cancer Innovation. Fleshner N, Ghai S, Toi A, van der Kwast T, Panzarella T.* (\$49,962,00 CAD. Mar 2016 – Mar 2017).

Role of telomere maintenance in testicular cancer relapse. *Canadian Urologic Oncology Group. Hamilton R.* (\$15,000.00 CAD Jul 2015 – Jul 2016).

Specialized programs of research excellence in prostate cancer. *National Cancer Institute (USA). Finelli A, Catalona W.* (Jul 2015 – Jul 2020).

Toward optimal prescribing for older adults with metastatic prostate cancer: the TOPCOP study. *Prostate Cancer Canada. True NTH. Alibhai S, Fleshner N, Joshua A, Berry S, Emmenegger U, Hansen A, Hotte S, Tomlinson G.* (\$413,000.00 CAD Jul 2015 - Jun 2016).

Tranexamic Acid during Cystectomy Trial (TACT) Study. *CIHR. Kulkarni G.* (2015).

## Honours and Awards

**Finelli, Antonio:** Mark Daily Local Hero Award, Prostate Cancer Canada. 2015.

**Finelli, Antonio:** ICCO Arts, Science and Culture Award, Italian Chamber of Commerce of Ontario. This Arts, Science and Culture Award honours individuals who have made a significant contribution to the cultural and intellectual life of Canada through their ground breaking and innovative work in the field of Arts, Science and Culture. May 2016.

**Hamilton, Robert:** Teaching and Education Award, Notable Teacher, UHN Department of Surgery. September 2015.

**Kulkarni, Girish:** 2015 Best Reviewer, Journal of Urology. May 2016.

## Division of Vascular Surgery

Dr. J.S Byrne	Assistant Professor
Dr. T.L. Forbes	Professor
Dr. K.W. Johnston	Professor
Dr. T.F. Lindsay	Professor (Division Head)
Dr. G. Oreopoulos	Assistant Professor
Dr. G. Roche-Nagle	Associate Professor
Dr. B.B. Rubin	Professor
Dr. D.L. Wooster	Professor

## Publications

**Aherne T, McHugh SM, Tashkandi W, Byrne J, Aljabi Y, Moneley D, Leahy A, Naughton P.** Radiofrequency ablation: an assessment of clinical and cost efficacy. *Ir J Med Sci.* 2016 Feb; 185(1): 107-10.

**Al-Zahrani HA, Lindsay T.** Mesenteric Ischemia. 2015; Chapter 109, pp.1036-1044; 4<sup>th</sup> edition. *Principles of Critical Care.* McGraw Hill Medical.

**Alhaizaey A, Ghanekar A, Oreopoulos G.** Inferior vena cava stent grafting closure of a high-flow portacaval shunt. *J Vasc Surg: Venous Lymph Disord.* 2016 Jan; 4(1): 88-91.

**Altoijryc A, Al-Omran M, Johnston KW, Lindsay TF.** Temporal trends in vascular trauma in Ontario, 1991-2009: a population-based study. *CMAJ.* 2016 Jun; 4(2): E309-E315.

**Appoo JJ, Bozinovsky J, Chu MWA, El-Hemamsy I, Forbes TL, Moon M, Ouzounian M, Peterson MD, Tittley J, Boodhwani M.** CCS/CSCS/CSVS joint position statement on open and endovascular surgery for thoracic aortic disease. *Can J Cardiol.* 2016 Jun; 32(6): 703-13.

**Bowers N, Eisenberg E, Montbriand J, Jaskolka J, Roche-Nagle G.** Using a multimedia presentation to improve patient understanding and satisfaction with informed consent for minimally invasive vascular procedures. *Surgeon.* 2015 Oct 10. pii: S1479-666X(15)00098-0.

**Byrne J, Greco E, Yeo E, McCluskey S, Lindsay T.** Tibial bypass salvage with eptifibatid in a patient with thrombocytopenia. *Journal of Vascular Surgery.* 2015 Dec; 1(4): 246-248.

**Crawford SA, Doyle MG, Tse LW, Roche-Nagle G.** 'In-stock' fenestrated stent graft for the urgent repair of an abdominal aortic aneurysm. *BMJ Case Rep.* 2016 May; doi:10.1136/bcr-2016-215093.

**Cristancho S, Apramian T, Vanstone M, Lingard L, Ott M, Forbes T, Novick R.** Thinking like an expert: surgical decision making as a cyclical process of being aware. *Am J Surg.* 2016 Jan; 211(1): 64-9.

**Dickson C, Lovell M, Lindsay T.** Peripheral artery disease: The unknown cardiovascular risk. *Diabetic Foot Canada.* 2015; 3: 6-9.

**El-Beheiry MH, Kidane B, Zehr M, Vogt K, Parry NG, Malthaner R, Forbes TL.** Predictors of discharge disposition following blunt traumatic thoracic aortic injury. *Ann Vasc Surg.* 2016 Jan; 30(1): 192-7.

**Ensan S, Li A, Besla R, Degousee N, Cosme J, Roufaie M, Shikatani EA, El-Maklizi M, Williams JW, Robins L, Li C, Lewis B, Yun TJ, Lee JS, Wieghofer P, Khattar R, Farrokhi K, Byrne J, Ouzounian M, Zavitz CC, Levy GA, Bauer CM, Libby P, Husain M, Swirski FK, Cheong C, Prinz M, Hilgendorf I, Randolph GJ, Epelman S, Gramolini AO, Cybulsky MI, Rubin BB, Robbins CS.**



Self-renewing resident arterial macrophages arise from embryonic CX3CR1(+) precursors and circulating monocytes immediately after birth. *Nat Immunol.* 2016 Feb; 17(2): 159-68.

**Fedorko L, Bowen JM, Jones W, Oreopoulos G, Goeree R, Hopkins RB, O'Reilly DJ.** Hyperbaric Oxygen Therapy Does Not Reduce Indications for Amputation in Patients With Diabetes With Nonhealing Ulcers of the Lower Limb: A Prospective, Double-Blind, Randomized Controlled Clinical Trial. *Diabetes Care.* 2016 Mar; 39(3): 392-9.

**Forbes TL, IMPROVE Trial Investigators.** Endovascular strategy or open repair for ruptured abdominal aortic aneurysm: one-year outcomes from the IMPROVE randomized trial. *Eur Heart J.* 2015 Aug; 36: 2061-9.

**Forbes TL, Naylor AR.** Commentary regarding - Trans Atlantic Debate: Whether branched/fenestrated EVAR procedures are better than snorkels, chimneys or periscopes in the treatment of most thoracoabdominal and juxtarenal aneurysms. *J Vasc Surg.* 2015 Nov; 62(5): 1365.

**Forbes TL, Naylor AR.** Commentary regarding - Trans Atlantic Debate: Whether an endovascular first strategy is the optimal approach for treating acute mesenteric ischemia. *J Vasc Surg.* 2015 Sept; 62(3): 772-3.

**Forbes TL, Scher L.** Point/Counterpoint: Basilic vein transposition: a one-stage or a two-stage procedure? *Vascular Specialist.* 2015 Dec; 11(12): 11-2.

**Forbes TL.** Vascular surgery - it's personal. *Vascular Specialist.* 2016 Feb; 12(2): 3.

**Hussain M, Forbes TL.** Current management of thoracic aortic trauma. *Ital J Vasc Endovasc Surg.* 2016 Mar; 23(1): 26-33.

**Hussain MA, Lindsay TF, Mamdani M, Wang X, Verma S, Al-Omran M.** Sex differences in the outcomes of peripheral arterial disease: a population-based cohort study. *CMAJ.* 2016 Mar 30; 4(1): E124-31.

**Katz J, Weinrib A, Fashler SR, Katznelzon R, Shah BR, Ladak SS, Jiang J, Li Q, McMillan K, Mina DS, Wentlandt K, McRae K, Tamir D, Lyn S, de Perrot M, Rao V, Grant D, Roche-Nagle G, Cleary SP, Hofer SO, Gilbert R, Wijeyesundera D, Ritvo P, Janmohamed T, O'Leary G, Clarke H.** The Toronto General Hospital Transitional Pain Service: development and implementation of a multidisciplinary program to prevent chronic postsurgical pain. *J Pain Res.* 2015 Oct 12; 8: 695-702.

**Kayssi A, de Mestral C, Forbes TL, Roche Nagle G.** A Canadian population based description of the indications for lower extremity amputations and outcomes. *Can J Surg.* 2016 Apr; 59(2): 99-106.

**Kayssi A, de Mestral C, Forbes TL, Roche-Nagle G.** Predictors of hospital readmissions after lower extremity amputations in Canada. *J Vasc Surg.* 2016 Mar; 63(3): 688-95.

**Kayssi A, DeBord Smith A, Roche-Nagle G, Nguyen LL.** Health-related quality-of-life outcomes after open versus endovascular abdominal aortic aneurysm repair. *J Vasc Surg.* 2015 Aug; 62(2): 491-8.

**Kayssi A, Forbes TL.** Non-atheromatous popliteal artery disease. 9th Edition, 2016. *Rutherford's Textbook of Vascular Surgery.* Elsevier Science, United States, Philadelphia. Sidawy A, Perler B (eds).

**Lee K, Istl A, Dubois L, DeRose G, Forbes TL, Wiseman D, Mujoomdar A, Kribs S, Power AH.** Fibrinogen level and bleeding risk during catheter directed thrombolysis using tissue plasminogen activator. *Vasc Endovasc Surg.* 2015 Oct; 49(7): 175-9.

**Malinowski AK, Maxwell C, Sermer M, Rubin B, Gandhi S, Silversides CK.** Pheochromocytoma in a Pregnant Woman With Prior Traumatic Aortic Injury. *Obstetrics & Gynecology.* 2015 Nov; 126(5): 1089-94.

**Metias MM, Kayssi A, MSc, Lindsay TF, Rajan DK.** Management of Acute Limb Ischemia After Glue Embolization of Endoleak Post-Endovascular Abdominal Aortic Aneurysm Repair. *Journal of Vascular Surgery Cases.* 2015 Sept; 1(3): 217-220.

**Murphy P, Lee K, Dubois L, DeRose G, Forbes T, Power A.** Negative pressure wound therapy for high-risk wounds in lower extremity revascularization: study protocol for a randomized controlled trial. *Trials.* 16: 504.

**Noel-Lamy M, Jaskolka J, Lindsay TF, Oreopoulos GD, Tan KT.** Internal Iliac Aneurysm Repair Outcomes Using a Modification of the Iliac Branch Graft. *European Journal of Vascular Endovascular Surgery.* 2015 Oct; 50(4): 474-9.

**Noël-Lamy M, Teng Tan K, Lindsay T.** Covered Stent in the Superior Gluteal Artery in a Hybrid Approach to Treat Internal Iliac Artery Aneurysm: A Technical Note. *Journal of Vascular Interventional Radiology.* 2015 Jul; (7): 1040-5.

**O'Sullivan KE, Byrne JS, Hudson A, Murphy AM, Sadlier DM, Hurley JP.** The effect of obesity on acute kidney injury after cardiac surgery. *J Thorac Cardiovasc Surg.* 2015 Dec; 150(6): 1622-8.

**Osman E, Tan KT, Tse L, Jaskolka J, Roche-Nagle G, Oreopoulos G, Rubin B, Lindsay T.** The in-hospital costs of treating high risk patients with fenestrated and branched endografts. *J Vasc Surg.* 2015 Dec; 62(6): 1457-64.

**Ouzounian M, Lindsay TF, Forbes TL.** Remote ischemic preconditioning and thoracoabdominal aneurysm repair: can an arm save a cord (or legs)? *J Thorac Cardiovasc Surg.* 2016 Mar; 151(3): 616-7.

**Roy T, Forbes T, Wright G, Dueck A.** Burning bridges: mechanisms and implications of endovascular failure in the treatment of peripheral arterial disease. *J Endovasc Ther.* 2015 Dec; 22(6): 874-80.

**Ruthrauff AA, King MW, Soulez G, Tan KT, Crawford SA, Roche-Nagle G, Cloutier G, Tse LW.** Effects of Pulsatile Fatigue on In Situ Antegrade Fenestrated Polyester Stent Grafts Deployed in a Patient-Specific Phantom Model of Juxtarenal Aortic Aneurysm. *J Vasc Interv Radiol.* 2015 Oct; 26(10): 1551-8.

**Ruz R, Lee K, Power AH, DeRose G, Forbes TL, Dubois L.** Anatomic and procedural determinants of fluoroscopy time during elective endovascular aortic aneurysm repair. *Vascular.* 2016 Feb; 24(1): 19-24.

**Sweeting MJ, Balm R, Desgranges P, Ulug P, Powell JT; Ruptured Aneurysm Trialists.** Individual-patient meta-analysis of three randomized trials comparing endovascular versus open repair for ruptured abdominal aortic aneurysm. *Br J Surg.* 2015 Sept; 102: 1229-39.

- Tao M, Eisenberg N, Jaskolka J, Roche-Nagle G.** Coil embolization of a posterior circumflex humeral aneurysm in a volleyball player. *Vasa*. 2016 Jan;45(1):67-70.
- Tao MJ, Montbriand JM, Eisenberg N, Sniderman KW, Roche-Nagle G.** Temporary inferior vena cava filter indications, retrieval rates, and follow-up management at a multicenter tertiary care institution. *J Vasc Surg*. 2016 Mar 30. pii: S0741-5214(16)00262-7.
- Tao MJ, Roche-Nagle G.** First bite syndrome: a complication of carotid endarterectomy. *BMJ Case Rep*. 2016 Mar; doi:10.1136/bcr-2015-213996.
- van Waes J, van Klei W.A., Beattie S, Lindsay T, van Wolfswinkel L.** Association between intraoperative hypotension and myocardial injury after vascular surgery. *Anesthesiology*. 2016 Jan;124(1):35-44.
- Walker JT, Elliott CG, Forbes TL, Hamilton DW.** Genetic deletion of Galectin-3 does not impair full thickness excisional skin healing. *J Invest Dermatol*. 2016 May; 136(5): 1042-50.
- Wong SS, Cleverly S, Tan KT, Roche-Nagle G.** Impact and Culture Change After the Implementation of a Preprocedural Checklist in an Interventional Radiology Department. *J Patient Saf*. 2015 Jul 31.
- Woodley-Cook J, Konieczny M, Roche-Nagle G.** Renal fibromuscular dysplasia. *BMJ Case Rep*. 2015 Sept; 10.1136/bcr-2015-211973 26424827.
- Woodley-Cook J, Noel-Lamy M, Tan KT, Lindsay T.** Use of an AMPLATZER Duct Occluder Device to Treat a Recurrent Arteriovenous Fistula following Endovenous Laser Treatment. *Journal of Vascular Interventional Radiology*. 2015 Jul; 1082-4.
- Yao T, Crawford SA, Forbes TL, King MW.** Components used in construction of endovascular stent grafts: impact on clinical practice and in situ fenestration. 2015; pp. 43-61. *New Endovascular Technologies, From Bench Test to Clinical Practice*. Geprovas, France, Strasbourg. Chafke N, Helm F, Meichelboeck W (eds).

## Invited Visits

- Forbes, Thomas Lawrence.** Atlantic Vascular Society Annual Meeting, Wallace, Nova Scotia, August 2015. Invited Lecturer: 1) Open abdominal aortic aneurysm repair in 2015. 2) Popliteal artery aneurysms: when should we treat and how?
- Forbes, Thomas Lawrence.** Canadian Society for Vascular Surgery, Victoria, British Columbia, September 2015. Distinguished Speaker: Presidential Address: Four Seconds.
- Forbes, Thomas Lawrence.** Canadian Society for Vascular Nursing, Victoria, British Columbia, September 2015. Invited Speaker: What is the role for open AAA in 2015?
- Forbes, Thomas Lawrence.** Canadian Cardiovascular Congress, Toronto, Ontario, October 2015. Invited Speaker: 1) PAD and critical limb ischemia: How should these patients be identified and managed? 2) Totally endovascular arch repair. 3) Descending thoracic aortic aneurysms.
- Forbes, Thomas Lawrence.** VEITH Symposium, New York, New York, November 2015. Invited Lecturer: Is EVAR good treatment for young AAA patients: when is open repair the best option?
- Forbes, Thomas Lawrence.** Critical Issues America, Coral Gables, Florida, February 2016. Invited Lecturer: Should the indications for TAAA repair be revised?
- Forbes, Thomas Lawrence.** Society for Interventional Radiology, Vancouver, British Columbia, April 2016. Invited Lecturer: My perspective on the endovascular approach to chronic dissection management.
- Forbes, Thomas Lawrence.** Winnipeg Vascular and Endovascular Symposium, Winnipeg, Manitoba, April 2016. Invited Lecturer: Top 10 Vascular Surgery Papers of 2015.
- Forbes, Thomas Lawrence.** National Capital Vascular Surgery Symposium, Ottawa, Ontario, May 2016. Invited Lecturer: Top PAD Papers.
- Forbes, Thomas Lawrence.** Pacific North West Endovascular Conference, Seattle, Washington, May 2016. Invited Lecturer: Age and EVAR: Should we consider age a relevant factor when counseling young patients for an EVAR?
- Forbes, Thomas Lawrence.** Society for Vascular Surgery Vascular Annual Meeting (VAM), National Harbor, Maryland, June 2016. Invited Lecturer: Cost containment in the endovascular era: How can we be successful in controlling cost with so much new technology?
- Forbes, Thomas Lawrence.** Oregon Health Sciences University, Knight Cardiovascular Institute, Portland, Oregon, June 2016. Visiting Professor: Personalized Aortic Care in 2016 and the Future.
- Lindsay, Thomas F.** National Capital Vascular Symposium, Faculty of Medicine, University of Ottawa, Ottawa, Ontario, May 7, 2015. Presenter: Advances in Risk Factor Management.
- Oreopoulos, George.** Winnipeg Vascular & Endovascular Symposium, Winnipeg, Manitoba, April 2016. Presenter: Case report 'Biting comments' - Case and review of Dogbite Vascular Injury.
- Oreopoulos, George.** Canadian Interventional Radiology Association, Niagara Falls, Ontario, June 10, 2016. Invited Speaker: Vascular Surgeon's Perspective on the Updated TASC II Guidelines.

## Research and Investigations

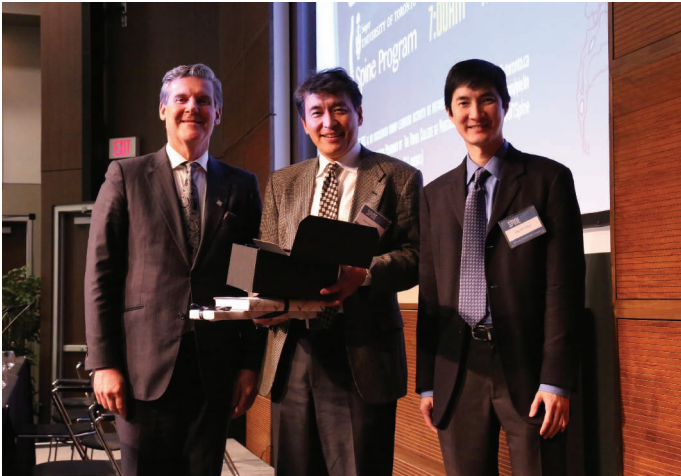
- An investigation into the use of novel anti-diabetic drugs for the treatment for abdominal aortic aneurysm. *The Peter Munk Cardiac Center*. Byrne JS, Lindsay T, Ouzounian M, Hinek A, Robbins C, Husain M. (\$37,000.00 CAD 2015 - ).
- Developing the Toronto Fontan Cannula as a bridge to transplant for failing Fontan circulation. *Peter Munk Cardiac Centre*. Honjo O, Doyle MG,

Weisel R, Roche L, Amon C, Forbes TL. (\$60,000.00 CAD 2015 - 2016).

Development of a novel device for treatment of failing Fontan circulation. *Ted Rogers Centre for Heart Research. Honjo O, Doyle MG, Roche L, Amon C, Forbes TL.* (\$32,500.00 2016 - 2017).

Determination of geometric factors that cause rotation of fenestrated aortic stent grafts during deployment. *PSI Foundation. Forbes T, Amon C, Doyle M, Soulez G.* (\$159,000.00 CAD 2016 - 2018).

## Spine Fest 2016



*Happy Holidays*

Wishing you and your family a wonderful  
Holiday Season and a New Year filled with happiness.

*James Rutka & the staff in the Department of Surgery*





## Women's College Hospital

**John L. Semple, Surgeon-in-Chief**

### DIVISION HEADS:

General Surgery: Tulin Cil

Orthopedic Surgery: Dr. John Theodoropoulos

Plastic Surgery: Dr. John Semple

### DIVISION OF PLASTIC SURGERY

Dr. John Semple

Dr. Mitchell Brown

### DIVISION OF ORTHOPEDICS

Dr. John Theodoropoulos

Dr. Ogilvie-Harris

Dr. Jaskarndip Chahal

Dr. Lucas Murnaghan

Dr. Tim Dwyer

### DIVISION OF GENERAL SURGERY

Dr. Tulin Cil

Dr. Karen Devon

### DIVISION OF UROLOGY

Dr. Ethan Grober

Women's College Hospital is a designated facility for ambulatory surgery in the Toronto Central LHIN. Surgical programs with a focus in Ambulatory Care, continue to be a dominant focus in the structure of Women's College Hospital as this institution continues to develop as an Academic Ambulatory Surgical Centre that is fully integrated with the hospital's primary ambulatory strategic plan and current services. Our Surgical Programs are dynamic and innovative and our mandate is to be a leader in academic ambulatory surgery. These innovations include the expedited discharge in postoperative patients and remote monitoring of patients at home using smart phone technology. Women's College Hospital continues to develop a fully academic affiliated site for inter-professional research and education in ambulatory surgery focused on minimally invasive and specialized ambulatory procedures and innovative models of health systems solutions.

In September of 2015 we moved into Phase II which is the final stage and the completion of the new Women's College Hospital. This new 400,000 square foot facility will have the capacity to accommodate 340,000 patients a year. It will also be the home to education, research, clinical centers and inter-professional teams of various sorts, all under one roof. The 7<sup>th</sup> and 8<sup>th</sup> floors of this new space has provided on site administrative office space and accommodate the core surgical activities and programs of the Department of Ambulatory Surgery.

Women's College Hospital continues to develop as a hub of a citywide focus in Orthopedic Sports Medicine and building surgical strength in



our core programs of Urology, Orthopedic Surgery, Plastic Surgery and General Surgery. Our goal is to become a leader in ambulatory surgery as we continue to work on our strengths: innovation and collaboration.

### DEPARTMENT NEWS

Dr. Karen Devon and Dr. Jas Chahal both passed their three year Continuing Appointment Review with flying colours. Dr Tim Dwyer successfully defended his PhD at the Institute of Medical Science on December 11<sup>th</sup> 2015. His thesis is "*Competency-based Medical Education: Assessing the in-training competence of orthopaedic residents*" Supervisor, Dr. Brian Hodges.

### TEACHING

The experience rated by undergraduate, residents, fellows and the Continuing Medical Education (CME) learners at Women's College Hospital continues to rate as excellent with our teaching volumes steadily increasing. They continue to make their surgical mark in the Department of Surgery as our residents and fellows have been honored with numerous awards in recognition of their research and education in patient care and development. Enhancement of future health care practitioners through the U of T Orthopedic Sports Medicine Program (UTOSM) at WCH has integrated a teaching curriculum and research program for fellows and residents. An active teaching program specifically for fellows has been introduced with both evidence based rounds and case presentations with a CME opportunity. Dr. Karen Devon and Dr. Tulin Cil continue to develop a new ambulatory general surgery rotation with the introduction of weekly guided reflective practice. Dr. Devon has led a same day discharge Thyroid Surgery program at Women's College Hospital which had a very successful launch. The Division of Plastic Surgery continues to host fellows through the Allergan Breast Fellowship Program.

### HONOURS AND AWARDS

**Dr Ethan Grober:**

**Lois H Ross Resident Advocate Award, Nominee 2016**  
Feb Urology, Dept of Surgery, Faculty of Medicine, PARO.  
(Postgraduate MD) *Resident Well-being & Advocacy.*

**Wightman-Berris Academy Post Graduate Teaching Award.,**  
2015 Urology, Dept of Surgery, Faculty of Medicine, Wightman-Berris Academy. (Postgraduate MD) *Wightman-Berris Academy Post Graduate Teaching Award.*

**Dr. Mitchell Brown:**

Arnis Freiberg Faculty Teaching Excellence Award - Presented in recognition of outstanding contributions to plastic surgery resident education. 2016.

President’s Medal - Canadian Society of Plastic Surgeons. In recognition of extraordinary contribution to the betterment of the specialty of Plastic Surgery. 2016.

Chairman’s Medal - Division of Plastic and Reconstructive Surgery - University of Toronto. Recognizing contributions to the Division of Plastic and Reconstructive Surgery. 2016.

**Dr Lavina Lickley:**

Awarded Professor Emeritus, Depart of Surgery, University of Toronto

**Dr John Semple:**

Dr. John Semple was awarded the “Mentorship Award” by the Women’s College Hospital Research Institute. 2016.

University of Toronto - Gallie Day: Award in recognition of 10 years of service as the Chief of Surgery at Women’s College Hospital. 2016.

Chairman’s Medal - Division of Plastic and Reconstructive Surgery - University of Toronto. Recognizing contributions to the Division of Plastic and Reconstructive Surgery. 2016.

**Dr Danny Whelan**

2016 Jun - present Associate Professor, Orthopaedics, Surgery, University of Toronto, Toronto, Ontario, Canada

2016 Apr - 2016 May 2016 ESSKA - AOSSM DJO Travelling Fellowship, American Orthopaedic Society for Sports Medicine

**NEW PROGRAMS**

With the capacity to expand our surgical programs with 10 state of the art operating rooms, Women’s College Hospital continues to grow though it’s various partnerships including collaboration with the Toronto Central LHIN around alleviating pressure points within the system. In addition, Post Construction Funding (PCOP) from the Province will help develop programs that started this year which include Otolaryngology, Hand Program and the Regional Orthopaedics Soft Tissue Trauma Initiative.

**TRANSITIONS**

Dr. John Semple completed 10 years as Chief of Surgery at Women’s College Hospital.

This past 10 years has been a period of transition, a period of building not just in bricks and mortar but building Departments with recruitment of the best young surgeons that could be hired. Today we have a brand new hospital with 11 core surgeons based at Women’s College Hospital. In total we have 64 surgeons credentialed from 10 partner hospitals that participate in ambulatory surgical programs at Women’s College Hospital. Dr David Urbach (from UHN) started, as the new incoming Surgeon in Chief on July 4<sup>th</sup> 2016.



## Division of General Surgery

Dr. T. Cil	Assistant Professor (Division Head)
Dr. K.M. Devon	Assistant Professor
Dr. T.M. Ross	Associate Professor

### Publications

**Devon KM.** A surgeon's reflections on reflection in surgery. *Keeping Reflections Fresh*. 2015 Kent State Press, United States. Peterkin A, Brett-MacLean P (eds).

**Devon KM.** The Practice of Surgery. *Narrative Inquiry in Bioethics*. Spring 2015; 5(1): E1-E2.

**Foley N, Racz J, Al-Hilli Z, Livingstone V, Cil TD, Holloway CMB, Romics Jr L, Matrai Z, Bennett MW, Duddy L, Nofech-Mozes S, Slodkowska E, Mallon EA, Dawson N, Roche T, Relihan N, Hill ADK, Redmond HP, Corrigan MA.** An International Multicenter Review of the Malignancy Rate of Excised Papillomatous Breast Lesions. *Annals of Surgical Oncology*. 2015 Dec;22 Suppl 3:S385-90.

**Goldfarb J, Kayssi A, Devon K, Rossos P, Cil T.** Smartphones and patient care: Exploring the use of text-based messaging for patient-related communication. *Surgical Innovation*. 2016 Jun;23(3):305-8.

**Henry P, Wasserstein D, Park S, Dwyer T, Chahal J, Slobogean G, Schemitsch E.** Arthroscopic Repair for Chronic Massive Rotator Cuff Tears: A Systematic Review. *Am J Sports Med*. 2015 Dec; 31(12): 2472-80.

**Metcalfe KA, Cil TD, Semple JL, Li LD, Bagher S, Zhong T, Virani S, Narod S, Pal T.** Long-Term Psychosocial Functioning in Women with Bilateral Prophylactic Mastectomy: Does Preservation of the Nipple-Areolar Complex Make a Difference? *Annals of Surgical Oncology*. 2015 Oct; 10: 3324-30.

**Roberts A, Nofech-Mozes S, Youngson B, McCreedy DR, Al-Assi M, Ramkumar S, Cil T.** The Importance of Applying ACOSOG Z0011 Criteria in the Axillary Management of Invasive Lobular Carcinoma: A Multi-institutional Cohort Study. *Annals of Surgical Oncology*. 2015 Oct; 10:3397-3401.

**Roberts A, Sandhu L, Cil T, Hofer S, Zhong T.** Contralateral prophylactic mastectomy rate stable at a major Canadian centre. *World Journal of Surgical Oncology*. 2016 Jun; 7(3):10.

**Schwock J, Desai G, Devon KM, Dube V.** Hobnail-Variant of Papillary Thyroid Carcinoma Diagnosed in Liquid-Based Cytology. *Diagn Cytopathol*. 2015 Dec;43(12):990-2.

**Seemann N, Webster F, Holden HA, Moulton CA, Baxter N, Desjardins C, Cil T.** Women in Academic Surgery: Why is the Playing Field Still Not Level? *American Journal of Surgery*. 2016 Feb;211(2):343-9.

### Invited Visits

**Devon, Karen Michelle.** Brian Goldman, White Coat Black Art, CBC, Sept 2015. Invited Speaker: Women in Surgery.

**Devon, Karen Michelle.** American College of Surgeon Clinical Congress, Chicago, Illinois, Oct 6-7, 2015. Facilitator: 1) Ethics Town Hall: How to make ethics part of your surgical career. 2) Ethics Paper Session Discussant.

**Devon, Karen Michelle.** Lindsey Cohick, Women in the Spotlight, United States, Nov 2015. Keynote Speaker: Women in Surgery.

### Research and Investigations

Developing a visual, narrative and web-based educational tool for breast surgery decision making. *Women's College Hospital*. Cil T, Tait G, Fung A. (\$15,000.00 CAD Apr 2016 – Mar 2017).

## Division of Orthopaedics

Dr. J. Chahal	Assistant Professor
Dr. T. Dwyer	Assistant Professor
Dr. J. Theodoropoulos	Assistant Professor (Division Head)

### Publications

**Abdallah FW, Dwyer T, Chan VW, Niazi AU, Ogilvie-Harris DJ, Oldfield S, Patel R, Oh J, Brull R.** IV and Perineural Dexmedetomidine Similarly Prolong the Duration of Analgesia after Interscalene Brachial Plexus Block: A Randomized, Three-arm, Triple-masked, Placebo-controlled Trial. *Anesthesiology*. 2016 Mar; 124: 683-695.



- Drexler M, Dwyer T, Kuzyk PR, Kosashvili Y, Abolghasemian M, Regev GJ, Kadar A, Rutenberg TF, Backstein D.** The Results Of Two-Stage Revision TKA Using Cefazidime-Vancomycin Impregnated Cement Articulating Spacers In Tsukayama Type II Periprosthetic Joint Infections. *Knee Surg Sports Traumatol Arthrosc.* 2016 Oct;24(10):3122-3130.
- Drexler M, Kuzyk PR, Abolghasemian M, Dwyer T, Kosashvili Y, Backstein D, Gross AE, Safir O.** Reconstruction of Chronic Abductor Deficiency after Revision Hip Arthroplasty with Extensor Mechanism Allograft. *Bone Joint Journal.* 2015; 97-B: 1050-5.
- Dwyer T, Drexler M, Chan VW, Whelan DB, Brull R.** Neurological complications associated with orthopedic surgery: Part 2 – common hip and knee procedures. *Reg Anesth Pain Med.* 2015 Sep–Oct;40(5):443-54.
- Dwyer T, Henry PD, Cholvisudhi P, Chan VW, Theodoropoulos JS, Brull R.** Neurological complications associated with orthopedic surgery: Part 1 – common shoulder and elbow procedures. *Reg Anesth Pain Med.* 2015 Sep–Oct;40(5):431-42.
- Dwyer T, Slade Shantz J, Chahal J, Wasserstein D, Schaschar R, Devitt B, Theodoropoulos J, Ringsted C, Ogilvie-Harris D.** Simulation of anterior cruciate ligament reconstruction (ACLR) in a dry model. *American Journal of Sports Medicine.* 2015 Dec; 43(12): 2997-3004.
- Dwyer T, Wadey V, Archibald D, Kraemer W, Shantz JS, Townley J, Ogilvie-Harris D, Petrera M, Ferguson P, Nousiainen M.** Cognitive and Psychomotor Entrustable Professional Activities: Can Simulators Help Assess Competency in Trainees? *Clin Orthop Relat Res.* 2016 Apr;474(4):926-34.
- Dwyer T, Wright S, Kulasegaram M, Theodoropoulos J, Chahal J, Wasserstein D, Ringsted C, Hodges B, Ogilvie-Harris D.** How to set the bar in competency-based medical education: standard setting after an Objective Structured Clinical Examination (OSCE). *BMC Med Educ.* 2016 Jan; 16:1.
- Dwyer T, Wright S, Kulasegaram M, Theodoropoulos J, Chahal J, Wasserstein D, Ringsted C, Hodges B, Ogilvie-Harris D.** Competency-Based Medical Education: Can Both Junior and Senior Residents Achieve Competence After A Sports Medicine Rotation? *J Bone Joint Surg Am.* 2015 Dec 2;97(23):1985-91.
- Henry P, Razmjou H, Dwyer T, Slade Shantz J, Holtby R.** Relationship between Probability of Future Shoulder Arthroplasty and Outcomes of Arthroscopic Debridement in Patients with Advanced Osteoarthritis of Glenohumeral Joint. *BMC Musculoskeletal Disorders.* 2015 Oct; 16:280.
- Henry P, Wasserstein D, Park S, Dwyer T, Chahal J, Slobogean G, Schemitch E.** Arthroscopic Partial Repair for Chronic Massive Rotator Cuff Tears: A Systematic Review. *Arthroscopy.* 2015 Dec;31(12):2472-80.
- Leroux T, Ogilvie-Harris D, Veillette C, Chahal J, Dwyer T, Henry P, Mahomed N, Wasserstein D.** The Epidemiology of Primary Anterior Shoulder Dislocations in Patients Aged 10-16 Years. *Am J Sports Med.* 2015 Sept; 43(9): 2111-7.
- Razmjou H, Henry P, Costa G, Dwyer T, Holtby R.** Effect of arthroscopic rotator cuff surgery in patients with preoperative restricted range of motion. *BMC Musculoskeletal Disord.* 2016 Feb; 17: 99.
- Regev GJ, Drexler M, Sever R, Dwyer T, Khashan M, Lidar Z, Salame K, Rochkind S.** Neurolysis for the treatment of sciatic nerve palsy associated with total hip arthroplasty. *Bone and Joint Journal.* 2015 Oct;97-B(10):1345-9.
- Sheth U, Gohal C, Chahal J, Nauth A, Dwyer T.** Comparing entry points for antegrade nailing of femoral shaft fractures. *Orthopedics.* 2016 Jan–Feb;39(1):e43-50.
- Veljkovic A, Dwyer T, Lau JT, Abbas KZ, Salat P, Brull R.** Neurological complications associated with orthopedic surgery: Part 3 – common foot and ankle procedures. *Reg Anesth Pain Med.* 2015 Sep–Oct;40(5):455-66.
- Dwyer T, Theodoropoulos J.** Assessment of Knee Injury. *Articular Cartilage of the Knee: Health, Injury and Therapy.* 2015.
- Sermer C, Devitt B, Chahal J, Kandel R, Theodoropoulos J.** The Addition of Platelet-Rich Plasma to Scaffolds Used for Cartilage Repair: A Review of Human and Animal Studies. *Arthroscopy.* 2015 Aug; 31(8): 1607-25.
- Tjong VK, Devitt BM, Murnaghan ML, Ogilvie-Harris DJ, Theodoropoulos JS.** A Qualitative Investigation of Return to Sport After Arthroscopic Bankart Repair: Beyond Stability. *Am J Sports Med.* 2015 Aug; 43(8): 2005-11.

## Invited Visits

- Chahal, Jaskarndip.** Chicago Sports Medicine Symposium, Chicago, Illinois, August 14-16, 2015. Presenter: 1) Chondral Defects in the Hip – How Much OA Can You Accept? 2) ACL Outcomes – What Have We Learned? 3) Rotator Cuff Tears – How Many Rows?
- Chahal, Jaskarndip.** Canadian Orthopaedic Association (COA) Canada, Quebec City, Quebec, June 18, 2016. Invited Speaker: Sports: Meniscus Repair and Reconstruction.
- Dwyer, Tim.** Canadian Orthopaedic Association (COA), Vancouver, British Columbia, 2015. Speaker: 1) Development and Implementation of EPA's (COA Education Workshop). 2) Arthroscopic Subscapularis Repair (Tips and Tricks). 3) Indications for repair: Acute and Chronic (Instructional Course Lecture, Injuries to the ACJ joint).

## Research and Investigations

- A randomized trial of Latissimus Dorsi Tendon Transfer versus Arthroscopic Partial Repair for Massive Rotator Cuff Tears. *ConMed Linvatec.* Dwyer T, Henry P, Nauth A, Whelan D, McKee M, Holtby R. (\$25,000.00 CAD Dec 2015 – Dec 2016).

## Honours and Awards

**Chahal, Jaskarndip:** Division of Orthopaedics Faculty Research Award. November 2015.

## Division of Plastic Surgery

**Dr. M.H. Brown**

Associate Professor

**Dr. J.L. Semple**

Professor (Division Head)

## Publications

**Brown MH, Beber B, Somogyi RB.** Skin sparing mastectomy: Planned two-stage and direct to implant breast reconstruction. Plastic Surgery. 4th Edition, Elsevier, 2015. P. Neligan (ed).

**Brown MH, Govshievich A, Kirkham K, Brull R.** Novel approach to intractable pectoralis major muscle spasms following submuscular expander-implant breast reconstruction. Canadian Journal of Plastic Surgery. 2015 Nov; 1(3): 68-70.

**Brown MH, Namnoum J.** Indications and controversies for implant only breast reconstruction. Clinics in Plastic Surgery – Contemporary Indications in Breast Reconstruction. 2016.

**Brown MH.** Planning and technique in subpectoral breast augmentation – Video book chapter. Aesthetic and reconstructive surgery video series. 2015, Dr. Philip Blondeel (ed).

**Brown MH.** Surgical Strategies in the Correction of the Tuberous Breast. Clinics in Plastic Surgery – Breast Augmentation. 2015; 4(42): 531–549.

**Davidge K, Armstrong KA, Brown M, Morgan P, Li M, Cunningham L, Semple JL.** Shifting Autologous Breast Reconstruction into an Ambulatory Setting: Patient-Reported Quality of Recovery. Plastic and Reconstructive Surgery. 2015 Oct; 136(4): 657-65.

**Govshievich A, Somogyi RB, Brown MH.** Conservative mastectomies and immediate reconstruction with the use of ADMS. Gland Surgery. 2015 Sept; 4(6): 453-462.

**Isaac K, Murphy B, Beber B, Brown MH.** The reliability of anthropometric measurements used preoperatively in aesthetic breast surgery. Aesthetic Surgery Journal. 2016 Apr; 36(4): 431-7.

**Maxwell GP, Heden P, Brown M, Luon J, Munhoz A.** Delphi Consensus Recommendations: Intraoperative technique and post-operative management of patients with Natrelle 410 implants. Plastic and Reconstructive Surgery – Global Open. 2015 Nov; 3(11): e557.

**Metcalfe K, Cil T, Semple J, Xuan L, Bagher S, Zhong T, Virani S, Narod S, Pal T.** Long-Term Psychosocial Functioning in Women with Bilateral Prophylactic Mastectomy: Does Preservation of the Nipple-Areolar Complex Make a Difference? Annals of Surgical Oncology. 2015 Oct; 22(10): 3324-30.

## Invited Visits

**Brown, Mitchell Howard.** American Society of Plastic Surgeons Annual Meeting, Boston, Massachusetts, October 18, 2015. Invited Speaker: 1) Choices in alloplastic breast reconstruction: A point counterpoint discussion – round vs. shaped and DTI vs. two-stage. 2) Choices in alloplastic breast reconstruction: A point counterpoint discussion – selection of internal support matrix. 3) Advocacy in surgery – Breast Reconstruction Awareness Day.

**Brown, Mitchell Howard.** Florida Society of Plastic Surgeons Annual Meeting, Boca Raton, Florida, December 4–6, 2015. Invited Lecturer: 1) Prevention and managements of complications. 2) Implant selection in aesthetic breast surgery.

**Brown, Mitchell Howard.** Southeastern Society of Plastic and Reconstructive Surgeons, Atlanta, Georgia, January 22–23, 2016. Invited Speaker: 1) Managing capsular contracture with site change. 2) Fat grafting with external expansion – Lessons learned. 3) Revision breast augmentation and mastopexy. Live Surgery Demonstration – Northside Hospital. 4) Nipple sparing mastectomy and direct to implant reconstruction.

**Brown, Mitchell Howard.** National Society of Plastic Surgeons, Ottawa, Ontario, March 7, 2016. Invited Speaker: The tuberous breast deformity and lipofilling of the breast.

**Brown, Mitchell Howard.** Barcelona Breast Meeting, Barcelona, Spain, March 18, 2016. Invited Speaker: 1) Solving problems in secondary implant surgery. 2) Solving problems in revision mastopexy and breast reduction. 3) Disasters of the masters; Solving complex problems. 4) Why you should use ADM in breast reconstruction.

**Brown, Mitchell Howard.** American Society for Aesthetic Plastic Surgery, Las Vegas, Nevada, April 3, 2016. Invited Speaker: Demystifying the plastic surgery application process: A Canadian perspective.

**Semple, John Laurie.** University of Guelph, International Institute for Critical Studies in Improvisation, Guelph, Ontario, September 16, 2015. Presenter: Improvisation in jazz as a model for improvisation in surgery and research.

**Semple, John Laurie.** 12th Annual 2015 Signature Event, The Cancer Quality Council of Ontario, Toronto, Ontario, November 18, 2015. Invited Visit: Collaborate to Activate: Empowering patients and providers for improved self-management.

**Semple, John Laurie.** World Congress, The Care Coordination and Technology Congress: Annual Leadership Summit on Hospital Readmissions, Atlanta, Georgia, January 28, 2016. Speaker: Leverage Mobile Technologies as a Tool in Reducing Readmissions.

**Semple, John Laurie.** 11th Annual Asia Pacific Travel Health Conference, Kathmandu, Nepal, March 2, 2016. Invited Speaker: High Ozone Levels on Mount Everest: Health Implications For Sherpa Communications and Mountaineers.

**Semple, John Laurie.** The Aesthetic Meeting, Las Vegas, Nevada, April 2-7, 2016. Presenter: Technology in Plastic Surgery: New Apps that have the Potential to Change your Practice.

**Semple, John Laurie.** The Canadian Society of Plastic Surgeons Annual Meeting, Ottawa, Ontario, June 13-19, 2016. Presenter: 1) The impact of TRAM flat breast reconstruction on mortality in women with invasive breast cancer treated with mastectomy. 2) How social are we being? A cross sectional study of the internet and social media presence of Canadian Plastic Surgeons.

## Research and Investigation

Development and validation of a competency-based program of education and assessment of the fundamentals of micro surgery (FMS). *Women's College Hospital. Grober E, Brown MH, Semple J, Jarvi, K, Bagli D.* (\$13,850.28 CAD Mar 2015 – Sept 2016).

## Honours and Awards

**Brown, Mitchell Howard:** President's Medal. Canadian Society of Plastic Surgeons. This award recognizes a CSPA member who has made an extraordinary contribution to the betterment of the specialty of Plastic Surgery. June 2016.

**Brown, Mitchell Howard.** Chairman's Medal. University of Toronto. In recognition of contributions to the Division of Plastic and Reconstructive Surgery, Plastic Surgery, Dept of Surgery. June 2016.

**Brown, Mitchell Howard:** Arnis Freiberg Faculty Teaching Excellence Award. Presented in recognition of outstanding contributions to plastic surgery resident education program. June 2016.

**Semple, John Laurie:** Mentor Award, Women's College Hospital Research Institute. March 30, 2016.

## Holiday Party





## Division of Urology

Dr. E. Grober

Assistant Professor

### Publications

**Yang K, Samplski M, Mazzulli T, Lo K, Grober ED, Jarvi KA.** Urinary Mycobacterium Avium Presenting as Sterile Pyuria. *Canadian Urological Association Journal (CUAJ)*. 2016;10(5-6):E186-8.

**Hubert MM, Karellis A, Stutz M, Grober E, Greenberg D, Sampalis JS.** The Impact of Healthcare Policy Based on Drug Plan Perspective Versus The Ministry of Health Perspective: A Case Study of The Odprn Recommendations of Restricting Reimbursement of Testosterone Replacement Therapy For Hypogonadism In Ontario, Canada. *Value Health*. 2015 Nov;18(7):A618.

**Krakowsky Y, Grober ED.** Which Men are Best Candidates for Testosterone Replacement? *Cardiovascular Endocrinology*. 2015;4(3):75-113.

**Grober ED, Krakowsky Y.** Hypo active Sexual Desire Disorder in Men. *Management of Sexual Dysfunction in Men and Women: An Interdisciplinary Approach*. 2015.

**Jarvi KA, Lo K, Grober ED, Mak V, Fischer A, Grantmyre J, Zini A, Chan P, Patry G, Chow V, Domes T.** CUA Guideline: The Workup and Management of Azoospermic Males. *Can Urol Assoc J*. 2015;9(7-8):229-35.

### Invited Visits

**Grober, Ethan D.** Rogers TV, Canada, 2015. Media Appearance: Testosterone Deficiency & Replacement.

**Grober, Ethan D.** 1010 Radio, Canada, 2015. Media Appearance: Testosterone Deficiency & Replacement.

**Grober, Ethan D.** University of Winnipeg (Mylan), Winnipeg, Manitoba, December 2015. Invited Speaker: New Canadian Guidelines on Testosterone Replacement Therapy.

**Grober, Ethan D.** Canadian Urological Association - Men's Health Summit, Toronto, Ontario, January 2016. Presenter: New Canadian Guidelines on Testosterone Replacement Therapy.

**Grober, Ethan D.** American Urological Association Meeting 2016, San Diego, California, May 2016. Invited Speaker: Point-Counterpoint Debate: Is there a Role for Nutraceuticals in Male Infertility?

### Research and Investigations

Prediction of Successful Sperm Retrieval in Patients with Non-obstructive Azoospermia using Tex101 Protein Measured in Seminal Plasma by ELISA. *CIHR*. Jarvi KA, Grober ED, Lo K, Schlegel PN, Smith J, Zini A. (\$160,000.00 CAD Apr 2016 – Mar 2017).

### J. T. Rutka Margolese Prize



### J. T. Rutka Order of Canada



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# Division of Anatomy

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Dr. A. Agur	Professor
Dr. B.A. Ballyk	Lecturer
Dr. P.D. Koeberle	Assistant Professor
Dr. J. Laprade	Lecturer
Dr. C. Morshead	Professor (Division Head)
Dr. H-S. Sun	Assistant Professor

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## Publications

**Chow A, Morshead CM.** Cyclosporin A promotes neural precursor cell survival and enhances hippocampal neurogenesis. *Stem Cell Res.* 2016 Jan;16(1):79-87.

**Dadwal P, Mahmud N, Sinai L, Azimi A, Fatt M, Wondisford F, Miller F, Morshead CM.** Activating endogenous neural precursor cells using metformin leads to neural repair and functional recovery in a model of childhood brain injury. *Stem Cell Reports.* 2015 Aug;5(2):166-173.

**Du JY, Yuan F, Zhao LY, Zhu J, Huang YY, Zhang GS, Wei Y, Liu Y, Yi Q, Tu YS, Zhong X, Sun FY, Sun HS, Guan YY, Chen WL, Wang GL.** Suppression of Kv1.5 protects against endothelial apoptosis induced by palmitate and in type 2 diabetes mice. *Life Sci.* 2016 Jan 4. pii: S0024-3205(15)30151-X.

**Faiz M, Morshead CM.** *Stem Cells to Function. The neurobiology of brain and behavioural development.* Elsevier 2016. R Gibb and B Kolb.

**Führmann T, Tam RY, Ballarin B, Coles B, Donaghue E, van der Kooy D, Nagy A, Tator CH, Morshead CM, Shoichet MS.** Injectable hydrogel promotes early survival of induced pluripotent stem cell-derived oligodendrocytes and attenuates long term teratoma formation after spinal cord injury by inducing differentiation. *Biomaterials.* 2016 Mar;83:23-36.

**Giangregorio LM, McGill S, Wark JD, Laprade J, Heinonen A, Ashe MC, MacIntyre NJ, Cheung AM, Shipp K, Keller H, Jain R, Papaioannou A.** Too Fit To Fracture: outcomes of a Delphi consensus process on physical activity and exercise recommendations for adults with osteoporosis with or without vertebral fractures. *Osteoporosis International.* 2015; 26(3): 891-910.

**Lee D, Li Z, Sohail QZ, Jackson K, Fiume E, Agur A.** A three-dimensional approach to pennation angle estimation for human skeletal muscle. *Comput Methods Biomech Biomed Engin.* 2015;18(13):1474-84.

**Liu R, Wang HT, Xu BF, Chen WL, Turlova E, Dong N, Sun C, Lu Y, Fu H, Shi R, Barszczyk A, Yang D, Jin T, Mannucci E, Feng ZP, Sun HS.** Cerebrovascular safety of sulfonylureas: the role of KATP channels in neuroprotection and the risk of stroke in patients with type 2 diabetes. *Diabetes.* 2016 May 13. pii: db151737. [Epub ahead of print].

**Livingston-Thomas J, Jeffers MS, Nguemeni C, Shoichet MS, Morshead CM, Corbett D.** Assessing cognitive function following medial prefrontal stroke in the rat. *Behav Brain Res.* 2015 Aug;294:102-10.

**McArthur C, Laprade J, Giangregorio LM.** Suggestions for Adapting Yoga to the Needs of Older Adults with Osteoporosis. *J Altern Complement Med.* 2016 Mar;22(3):223-6.

**Pain LM, Baker R, Richardson D, Agur AM.** Effect of trunk-restraint training on function and compensatory trunk, shoulder and elbow patterns during post-stroke reach: a systematic review. *Disabil Rehabil.* 2015;37(7):553-62.

**Sachewsky N, Azimi A, Morshead CM.** Pro-survival factors derived from the embryonic brain promote adult neural stem cell survival. *Stem Cells and Development.* 2015;23(20):2469-2481.

**Schuch CP, Jeffers MS, Antonescu S, Nguemeni C, Gomez-Smith M, Pereira LO, Morshead CM, Corbett D.** Enriched rehabilitation promotes motor recovery in rats exposed to neonatal hypoxia-ischemia. *Behav Brain Res.* 2016 May 1;304:42-50.

**Shabanzadeh AP, D'Onofrio PM, Monnier PP, Koeberle PD.** Targeting caspase-6 and caspase-8 to promote neuronal survival following ischemic stroke. *Cell Death Dis.* 2015 Nov 5;6:e1967.

**Taludar A, Morshead CM, Shoichet MS.** Circumventing the Blood-Brain barrier: Injectable hyaluronan-based hydrogel delivery of Cyclosporin A promotes tissue repair in the stroke injured rat brain. *J Control Release.* 2015 Oct 10;215:1-11.

**Turlova E, Bae C, Deurloo M, Chen W, Barszczyk A, Horgen FD, Fleig A, Feng ZP, Sun HS.** TRPM7 regulates axonal outgrowth and maturation of primary hippocampal neurons. Collaborative project with University of Hawaii (HFD & FA providing TRPM7 blocker). *Molecular Neurobiology.* 2016 Jan;53(1):595-610.

**Wang H, Quirion R, Little PJ, Cheng Y, Feng ZP, Sun HS, Xu J, Zheng W.** Forkhead Box O Transcription Factors as Possible Mediators in the Development of Major Depression. *Neuropharmacology.* 2015 Dec;99:527-37.

**Xu BF, Xiao AJ, Chen WL, Liu R, Turlova E, Barszczyk A, Sun CLF, Liu L, Tymianski M, Feng ZP, Sun HS.** Neuroprotective Effects of a PSD-95 Inhibitor in Neonatal Hypoxic-Ischemic Brain Injury. *Mol Neurobiol.* 2015 Oct 31. [Epub ahead of print].

## Invited Visits

**Sun, Hong-Shuo.** Chinese Pharmacological Society (CNPHARS), China, Beijing, 4 Nov 2015. Distinguished Speaker: TRPM7 Channels as Therapeutic Targets for Neuroprotection.



**Sun, Hong-Shuo.** ZhongShan School of Medicine, Sun Yat-Sen University, China, Guangdong, Guangzhou, 6 Nov 2015. Invited Speaker: Role of KATP channels in Stroke.

**Sun, Hong-Shuo.** University of Macau, China Guangdong, Macau, 9 Nov 2015. Invited Speaker: PSD-95 Inhibitor's Neuroprotective Effects in Hypoxic-Ischemic Brain Injury.

**Sun, Hong-Shuo.** Hawaii Pacific University, Hawaii, United States, 5 Apr 2016. Invited Speaker: TRPM7 Channels as Drug Development Target for Neuroprotection.

**Sun, Hong-Shuo.** The Journal of Physiology, The Queen's Medical Center & The University of Hawaii United States Hawaii, 8 Apr 2016. Distinguished Speaker: 1) Role of TRPM7 channels in Stroke and Hypoxic-Ischemic Brain Injury. 2) Advances & Breakthroughs in Calcium Signaling.

## Research and Investigations

Discovery Grant. *Natural Sciences and Engineering Research Council of Canada (NSERC).* Sun HS. (\$140,000 CAD 2016 Apr-2021 Apr).

Neuroprotective peptides for glaucoma. *CIHR. Koeberle PD.* (\$150,000 2015-2016)

PHuman: Parametric multiscale modeling and simulation of human anatomy. *NSERC and Autodesk Canada Inc. Agur A.* (\$200,000 2015-2016).

Promoting neurorepair via novel biphasic electrical stimulation therapy. *CIHR. Morshead CM, Popovich M.* (\$100,000 2015-2016).

Synthius. *GRAND NCE. Agur A.* (\$97,690 CAD 2015).

Testing neural precursors as mediators and facilitators of constraint induced movement therapy in cerebral palsy. *NeuroDevNet. Morshead CM, Nagy A, Vanderkooy D, Fehlings M, Fehlings D.* (\$440,000.00 CAD 2015 Jul -2018 Jul).

## Honours and Awards

**Ballyk, Barbara Ann (Dee):** W.T. Aikins Award for Excellence in Course/Program Development and Coordination in Undergraduate Medical Education University of Toronto. 2015

**Morshead, Cindi M:** Excellence in Undergraduate teaching in Life Science Award. 2016.

## JTR & Gordon Murray Lecturer



## Spinal Cord Injury and Common Safety Methods Guidelines Meeting





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# Research in Education

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Dr. R.R. Sonnadara  
Dr. N. Woods

Assistant Professor  
Assistant Professor

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## Publications

**Acai A, McQueen AS, McKinnon V, Sonnadara RR.** Using art for the development of teamwork and communication skills among healthcare professionals: A literature review. *Arts & Health.* 2016 May.

**Acai A, McQueen SA, Fahim C, Wagner N, McKinnon V, Boston J, Sonnadara RR.** It's not the form; it's the process: A phenomenological study on the use of creative professional development workshops to improve teamwork and communication skills. *Medical Humanities.* 2016 Jun.

**Bandiera G, Hodges B, Maniate J, Woods NN, Hanson M.** Access and Selection: Canadian perspectives on who will be a good doctor and how to find them. *Academic Medicine.* 2015; 90(7): 946-952.

**Eskicioglu C, Forbes S, Tsai S, Francescutti V, Coates A, Grubac V, Sonnadara R, Simunovic M.** Collaborative case conferences in rectal cancer: case series in a tertiary care centre. *Current Oncology.* 2016; 23(2):138-43.

**Hoogenes J, Mironova P, Safir O, McQueen SA, Abdelbary H, Drexler M, Nousiainen M, Ferguson P, Kraemer W, Alman B, Reznick R, Sonnadara RR.** Student-led learning: A new teaching paradigm for surgical skills. *The American Journal of Surgery.* 2016; 209(1): 107-114.

**Kulasegaram K, Manzone JC, Ku C, Skye A, Wadey V, Woods NN.** Cause and Effect: Testing a Mechanism and Method for the Cognitive Integration of Basic Science. *Acad Med.* 2015 Nov;90(11 Suppl):S63-9.

**Kulasegaram KM, Wright F, Knickle K, Woods NN, Cil T.** Teaching the Breast Examination Using Critiques. *The Clinical Teacher.* 2016 Apr;13(2):156-8.

**McQueen SA, Petrisor B, Bhandari M, Fahim C, McKinnon V, Sonnadara RR.** Examining the barriers to meaningful assessment and feedback in medical training. *The American Journal of Surgery.* 2016;1(2): 464-75.

**Mylopoulos M, Brydges R, Woods NN, Manzone J, Schwartz DL.** Preparation for future learning: a missing competency in health professions education? *Med Educ.* 2016 Jan;50(1):115-23.

**Nousiainen MT, McQueen SA, Ferguson P, Alman B, Kraemer W, Safir O, Reznick R, Sonnadara R.** Simulation for Teaching Orthopaedic Residents in a Competency-based Curriculum: Do the Benefits Justify the Increased Costs? *Clinical Orthopaedics and Related Research.* 2016 Apr;474(4):935-44.

**Woods NN, Mylopoulos M.** On clinical reasoning research and applications: redefining expertise. *Medical Education.* 2015 May;49(5):543.

**Woods NN, Mylopoulos M.** How to improve the teaching of clinical reasoning: from processing to preparation. *Med Educ.* 2015 Oct;49(10):952-3.

## Invited Visits

**Sonnadara, Ranil.** McMaster Otolaryngology Division Meeting, Hamilton, Ontario, Dec 2015. Presenter: The Role of Assessment & Feedback in CBD.

**Sonnadara, Ranil.** Association of Surgical Education (ASE), Boston, MA, April 2016. Presenter: 1) Designing and implementing competency-based assessment tools: Lessons from trauma and orthopedic surgery at a Canadian training center. 2) Computer Based Video Instruction is More Effective than Traditional Textbook Learning in Surgical Residency Education.

**Sonnadara, Ranil.** McMaster Department of Surgery Research Advisory Group, Hamilton, Ontario, Apr 2016. Presenter: From Tea Steeping to Brewing our own cup: Innovations in Surgical Education.

**Sonnadara, Ranil.** McMaster Cardiac Research Day, Hamilton, Ontario, May 2016. Presenter: Adopting a Competence By Design Framework.

## Research and Investigations

Classrooms, Clinics & Curricula: Uncovering How Medical Students Learn to Manage their Learning. *Spencer Foundation.* Kulasegaram K, Mylopoulos M, Monteiro S, Brydges R, McConnell M, Woods NN. (\$49,100.00 CAD Jul 2015 – Jul 2016).

Creating a New Musical Composition that Incorporates the Active Acoustic System of the LIVELab and Real-time Physiological Responses at the McMaster Institute for Music and the Mind. *Hamilton Philharmonic Orchestra and Arts Research Board.* Sonnadara R. (\$5,800.00 CAD 2016).

Dedicated Programming Competition Round VII. MAX3D – Visualization of Reciprocal Space. *SHARCNET.* Sonnadara R. (\$20,000.00 CAD 2016).

Developing a Competency based Curriculum and Evaluation tools for McMaster Surgical Residency Training Programs. *McMaster Surgical Associates.* Kelly S, Reid D, Sonnadara R. (\$30,000.00 CAD 2015).

Implementing a Surgical Foundations Boot Camp. *McMaster Surgical Associates. Kelly S, Amin N, Sonnadara R.* (\$30,000.00 CAD Apr 2016 – May 2017).

Integration & Identity: Understanding the Mechanisms that Foster a Holistic Physician in Longitudinal Integrated Clerkships. *2015 AMS Phoenix Project Call to Caring Grant. Bernstein S, Kulasegaram KM, Martimianakis T, Mylopoulos M, Kuper A, Woods NN, Hawa R, Hutchinson C, Weyman K, Clavell N, Graves L, Kaufman A, Nyhof-Young J, Pittini R, Tartaro P, Webster F, Whitehead C, Wright S.* (\$35,000.00 CAD Aug 2015 – Aug 2016).

SHARCNET Dedicated Programming Competition Round VI. MAX3D –Visualization of Reciprocal Space. *SHARCNET. Sonnadara R.* (\$30,000.00 CAD 2015).

Understanding music as a complex social activity. *SSHRC. Sonnadara R, Trainor L.* (\$302,343.00 CAD 2016).

Using EEG to measure mind wandering: A stepping-stone to more effective teaching in medical education. *McMaster Surgical Associates. Petrisor B, Sonnadara R, Bhandari M, Kelly S, Bosnyak D, Baxter P.* (\$30,000.00 Apr 2016 – May 2017).

## Honours and Awards

**Woods, Nicole N.** Research Mentor Award University of Toronto Department of Family and Community Medicine. In recognition of excellence in research mentorship. 2016.

**Woods, Nicole N.** Mentor Award, Early Career Medical Educators. In recognition of efforts in guiding early career medical educators in their career development. 2016.



# Cross Appointments

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Dr. R. Abalian	Medicine	Dr. C. Lumsden	Medicine
Dr. A.J. Baker	Anaesthesia	Dr. A. Macdonald	Medicine
Dr. B. Bapat	Laboratory Medicine and Pathobiology	Dr. J. McGlade	Medical Biophysics
Dr. P. Birek	Dentistry	Dr. D.A.G. Mickle	Laboratory Medicine and Pathobiology
Dr. A. Campbell	Medicine	Dr. M. Milner	Rehabilitation Sciences
Dr. J. Carson	Family and Community Medicine	Dr. W. Montanera	Medical Imaging
Dr. W.A. Cassar-Demajo	Anaesthesia	Dr. J. Mullen	Laboratory Medicine and Pathobiology
Dr. K. Czarnecka-Kujawa	Medicine	Dr. A. Narold	Public Health Sciences
Dr. A. Daar	Public Health Sciences	Dr. M. Ojha	Rehabilitation Sciences
Dr. A. Damyanovich	Medical Imaging	Dr. K.P.H. Pritzker	Laboratory Medicine and Pathobiology
Dr. J.E. Davies	Dentistry	Dr. P. Ritvo	Public Health Sciences
Dr. A.D. DePetrillo	Obstetric and Gynaecology	Dr. M. Romach	Psychiatry
Dr. E. Diamanadis	Laboratory Medicine and Pathobiology	Dr. A. Romaschin	Laboratory Medicine and Pathobiology
Dr. R. Eby	Medicine	Dr. J. Rutka	Otolaryngology
Dr. V.L. Fornasier	Laboratory Medicine and Pathobiology	Dr. A. Sahgal	Radiation Oncology
Dr. A. Fox	Medical Imaging	Dr. G. Sandor	Dentistry
Dr. J. Freeman	Otolaryngology	Dr. A. Slutsky	Medicine
Dr. R. Gilbert	Otolaryngology	Dr. D. Stewart	Psychiatry
Dr. M. Greenberg	Pediatrics	Dr. G. Tait	Anaesthesia
Dr. M.D. Grynpass	Laboratory Medicine and Pathobiology	Dr. R. Talwar	Dentistry
Dr. P.J. Gullane	Otolaryngology	Dr. K.G. terBrugge	Medical Imaging
Dr. B. Harvey	Public Health Sciences	Dr. T. van der Kwast	Laboratory Medicine and Pathobiology
Dr. B. Hinz	Dentistry	Dr. Q. Wan	Physiology
Dr. J. Irish	Otolaryngology	Dr. I. Weller	Public Health Sciences
Dr. J. Irvine	Psychiatry	Dr. L. White	Medical Imaging
Dr. G. Jackowski	Laboratory Medicine and Pathobiology	Dr. R. Willinsky	Medical Imaging
Dr. M.G. Johnston	Laboratory Medicine and Pathobiology	Dr. L. Wilson-Pauwels	Biomedical Communications
Dr. R. Kandal	Laboratory Medicine and Pathobiology	Dr. I. Witterick	Otolaryngology
Dr. W. Kucharczyk	Medical Imaging		
Dr. G.A. Levy	Medicine		





# **UNIVERSITY OF TORONTO**

**Faculty of Medicine  
Department of Surgery**

Office of the Chair  
Stewart Building, 5th Floor  
149 College Street  
Toronto, Ontario M5T 1P5

**[www.surgery.utoronto.ca](http://www.surgery.utoronto.ca)**