

Department of Surgery

**Annual Report** 



Dr. J.T. Rutka

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

Dr. O. Rotstein
Dr. D.A. Latter
Vice-Chair, Education
Vice-Chair, Clinical
Vice-Chair, Research
Vice-Chair, Quality
Dr. A. Kapus
Dr. A. Kapus
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. L. Smith North York General Hospital Dr. C. Compeau St. Joseph's Health Centre Dr. O.D. Rotstein St. Michael's Hospital

Dr. A. Nathens
Dr. G. Simone
Sunnybrook Health Sciences Centre
The Toronto East General 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 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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Research and Investigations	Publications
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Honours and Awards	Publications
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Research and Investigations	Invited Visits
Honours Received	Research and Investigations
Division of Neurosurgery	Honours Received
Publications	Women's College Hospital
Invited Visits	Division of General Surgery
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Honours Received	Invited Visits
Division of Orthopaedics	Research and Investigations
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Invited Visits	Publications
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Honours Received	Research and Investigations
Division of Urology	Division of Urology
Publications	Publications
Invited Visits	Invited Visits
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#### Gallie-Bateman and McMurrich Research Presentations



**Session Chair:** Gideon Cohen, Cardiovascular Surgeon



**Andrea M. Covelli (SSTP):** "Examining healthbeliefs: Why mastectomies are on the rise" (Supervisors: Nancy N. Baxter, Frances C. Wright)



Mushriq Al-Jazrawe: "MicroRNA-29 mediates  $\beta$ -catenin induced proliferation of desmoid tumours via PDGFR $\beta$  signalling" (Supervisor: Benjamin A.



**Hiroyuki Kawajiri:** "Nrf2 protects against ischemia reperfusion injury via inhibition of Nf- b activation and suppresses subsequent development of cardiac allograft vasculopathy in murine heart transplantation" (Supervisor: Vivek Rao)



**Spyridon Karadimas:** "Early disruption of cervical propriospinal input onto the locomotor central pattern generator (CPG) underlies specific gait deficits in degenerative cervical myelopathy" (Supervisor: Michael G. Fehlings)





James P. Byrne (SSTP): "When is dead "dead"? Identifying the unsalvageable patient for the purpose of Performance improvement" (Supervisor: Avery B. Nathens)



**Saswata Deb (SSTP):** "Impact of ethnicity on long-term outcomes after coronary artery bypass grafting surgery" (Supervisor: Stephen E. Fremes)



Christopher J.D. Wallis (SSTP): "Incidence density rates of treatment-related complications other than incontinence or erectile dysfunction after contemporary treatment for prostate cancer" (Supervisor: Robert K. Nam)



**Simon Kelley:** "Fgfr3 regulates fracture repair by controlling the balance of intramembranous and endochondral bone formation" (Supervisor: Benjamin A. Alman)



Michael Chang: "Optogenetic activation of interneurons triggers ICTAL events in In vitro and in vivo seizure models" (Supervisor: Taufik A. Valiante)



## 41st GALLIE DAY Friday May 8, 2015

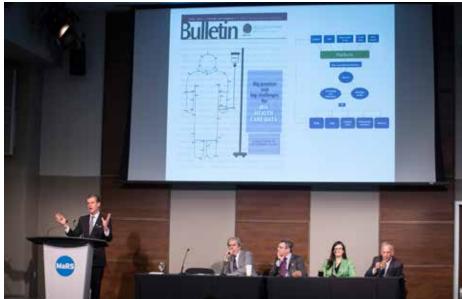
#### SYMPOSIUM:

"Is Bigger Better? Opportunities, Challenges and Limitations of Big Data in Health Research"



**Geoffrey Anderson,** Professor, Chair in Health Management Strategies, Department of Health Policy, Management and Evaluation, Faculty of Medicine, University of Toronto

"Linking Broad and Deep Data to Create the Infrastructure for Discovery Research"



Chair: Michael G. Fehlings, Vice Chair Research



Nancy Baxter, Colorectal & General Surgeon, St. Michael's Hospital; Associate Professor, Department of Surgery, University of Toronto

"Volume, Variety, Velocity, Veracity - How do we harness the power of big data for health research?"



Steven Gallinger, Head, Hepatobiliary/Pancreatic Surgical Oncology Program; Head, PanCuRx, Translational Initiative in Pancreas Cancer, OICR; Professor of Surgery, University of Toronto

"Big Data in Cancer Genetics Research - It Isn't Easy, but it's Worth It"



**Avery B. Nathens,** Surgeon-in-Chief, Sunnybrook Health Sciences Centre; DeSouza Chair in Trauma Research; Professor of Surgery, University of Toronto

"From Crashes to Care to Prevention: Tales of Big Data in Injury Control"

#### **GORDON MURRAY LECTURE:**

**Dr. Clifford Ko** (Professor of Surgery, UCLA School of Medicine; Director, Division of Research and Optimal Patient Care, American College of Surgeons)

"Perspectives on Data for Achieving Quality of Care"

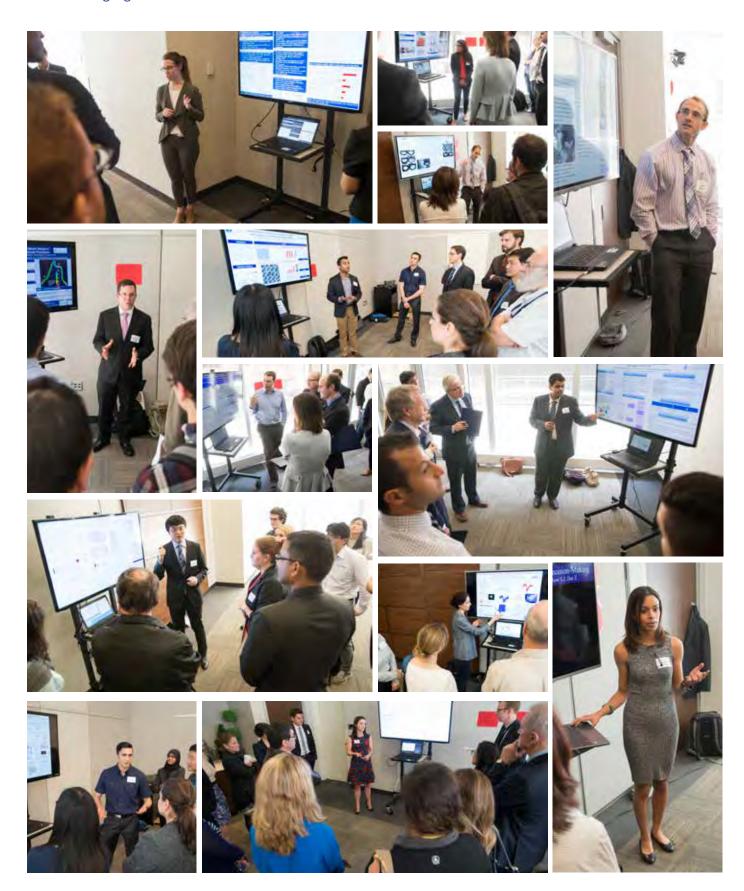




# Poster Judging



# Poster Judging



## Reception, Dinner & Awards Ceremony





## Reception, Dinner & Awards Ceremony





# Continuing Appointment Reviews 2014-15



Marcelo Cypel - individual photo



**Anand Govindarajan -** From left to right: R. McLeod, C. Swallow, A. Govindarajan, J. Wonder, A. McCart, N. Baxter.



**Osami Honjo -** From left to right: C. Caldarone, O. Honjo, J. Wright



**Richard Jenkinson -** From left to right: A. Nathens, R. Jenkinson, H. Kreder, P. Ferguson



Martin Koyle - Left to right: N. Fleshner, M. Koyle, C. Caldarone



**Girish Kulkarni** - Left to right: D. Urbach, N. Fleshner, G. Kulkarni, S. Keshavjee



Jason Lee- From left to right: K. Pace, J. Lee, N. Fleshner



**Christine Novak** - Left to right: S. Hofer, C. Forrest, C. Novak, S. McCabe, G. Fernie



**Leonard Tse** - Left to right: T. Lindsay, L. Tse, T. Forbes, K. Yasufuku



DEPARTMENT OF SURGERY

Annual Address
September 2014: Dr. O. Rotstein, Dr. J. Rutka



Bigelow Lecture
October 2014:- C. Caldarone, R. Bell, J. Rutka



Lister and George Armstrong-Peters Award Winner Presentations

**December 2014:**- G. Borschel, J. Rutka, L. Klotz

March 2015: Cancelled May 2015: Gallie Day



Ben Alman Research and Science Lecture January 2015: J. Rutka, B. Alman, M. Fehlings



Kergin Lecture



February 2015: Skeptical Scalpel, J. Rutka



Palmer Lecture



April 2015: D. Backstein, T. Pawlik, O. Safir



Tile Lecture



June 2015: Nathens, M. Tile, J. Kellam























Chair's Report
James T. Rutka, RS McLaughlin Professor and Chair

I am pleased to provide a summary of the many developments in the Department of Surgery from July 1 2014 to June 30 2015. This academic year was notable for numerous accomplishments by faculty, residents and fellows. In addition, we continued to achieve many of the goals set out in our Strategic Plan, "Transforming Surgery: Beyond the Cutting Edge 2012 – 2017". As a brief summary, we promoted several faculty members to higher academic ranks at the Decanal Committee, I appointed new University Division Chairs, we have established our guidelines for late career transitioning surgeons, we have created a Global Surgery Academic Job Description, we established new Lectureships in the Department of Surgery, we appointed a new Director of Evaluations, and we hired a Medical Illustrator for the first time in the history of the Department of Surgery.

We continue to be leaders in undergraduate medical education in surgery, and I have been incredibly pleased with the success of the Medical Student curriculum with the establishment of the Breakfast with the Chairman seminar, the SEAD Program Course, Suturing Tying Workshops, A Life in Surgery Seminar series to name a few key initiatives. Melinda Musgrave became our new Director of Education and Evaluations. She succeeded Nikki Woods who had served admirably in that capacity for the past 10 years.

I was delighted to appoint Carol Swallow to the position of the Bernard and Ryna Langer Chair in the Division of General Surgery. Carol follows Andy Smith in this role. In addition, Chris Caldarone was appointed as Surgeon-in-Chief at Sick Kids Hospital and follows Jim Wright who has just departed Sick Kids for a position as an Orthopaedic Surgeon at Oxford.

Several of our faculty members held special leadership positions. As examples, Howard Clarke was President of the Canadian Society of Plastic Surgeons, and Tom Forbes the President of the Canadian Society for Vascular Surgery. Robin Richards was the President of the Canadian Orthopaedic Association. Mingyao Liu became the Director of the Institute of Medical Sciences, and Andy Smith the VP of Medical Affairs at Sunnybrook Health Sciences Centre.

Jim Waddell was appointed as the Surgical Alumni Association Chair in the Department of Surgery. He succeeds Martin Barkin who had served in that capacity for the past 6 years. Howard Clarke became the Departmental Promotions Committee Chair succeeding Sender Herschorn who had served from 2011 to 2015.

Formal retirements in the Department of Surgery included Manual Gomez from Plastic and Reconstructive Surgery, Ian Taylor and Mike Wiley from Anatomy.

The following faculty members were promoted from Lecturer to Assistant Professor:

Jason Lee, Urology St. Michaels; Jory Simpson, General Surgery St. Michaels Hospital; Shahriar Shahrokhi, Plastics, Sunnybrook; Frank Lista, Plastics Trillium; Khalid Syed Orthopaedics UHN; Carmine Simone, Thoracic TEGH; and Michael Weinberg Plastics, Trillium.

From Assistant to Associate Professor: Leo deCosta, Neurosurgery Sunnybrook; Amr ElMaraghy, Orthopaedics St. Josephs; Rajiv Gandhi Orthopaedics UHN; Seven Hopyan, Orthopaedics

Sick Kids; Mark Peterson, Cardiac Surgery St. Michaels Hospital; Oleg Safir, Orthopaedics Mount Sinai; Tom Schweitzer, Neurosurgery St. Michael's; Marcus Selzner, General Surgery UHN; Hong Sun, Anatomy with tenure; and Christiane Werneck, Vascular Trillium.

From Associate to Full Professor, we were pleased to be successful in promoting Nancy Baxter, General Surgery St. Michaels; Tim Daniels in Orthopedics St. Michaels; Teodor Grantcharov, General Surgery St Michaels; Andrew Howard Orthopaedics Sick Kids; William Hutchinson, Neurosurgery UHN; Wolfgang Kuebler General Surgery St. Michael's; and David Latter, Cardiac Surgery St. Michaels.

Several faculty underwent their Continuing Appointment Reviews in the first 5 years since starting their surgical practices: Osami Honjo, Cardiac Surgery Sick Kids; Marcelo Cypel, Thoracic Surgery UHN; Anand Govindarajan, General Surgery, Mount Sinai; Richard Jenkinson, Orthopeadics Sunnybrook; Martin Koyle, Urology Sick Kids; Girish Kulkarni, Urology UHN; Jason Lee, Urology St Michael's; Christine Novak, Plastics UHN; and Leonard Tse, Vascular UHN.

Numerous new faculty members were recruited, and they included: Saeid Amini -Nik at SRI; Mitesh Badiwala, Cardiac Surgery UHN; Junaid Bhatti SRI; John Byrne, Vascular Surgery UHN; Mark Camp, Orthopaedics Sick Kids; Tim Dwyer, Orthopaedics WCH; Martin Gargan, Division Head, Orthopaedic Sick Kids; Elisa Greco, Vascular St. Michael's; Julie Hendrick Hallet General Surgery Sunnybrook; Patrick Henry, Orthopaedics Sunnybrook; Mark Hurtig, Orthopaedics; Adena Scheer General Surgery, St. Michaels; Eran Sholomvitz, General Surgery, UHN; William Stansfield, Cardiac UHN; and David Wasserstein, Orthopaedics Sunnybrook.

Sadly, we lost several members of our alumni and faculty including Peter Allen 1921-2014, John Connelly 1924-2014, William Dennis, 1940 -2014, Sigmund Ein, 1936-2015, Robert Knowlton, 1934 -2014 and Gordon McLorie (1945 - 2015).

We inaugurated three new Departmental named lectureships, including the Robin McLeod Lectureship in Clinical Epidemiology; the Balfour Lectureship in Surgical Ethics; and the Ben Alman Lectureship in Surgical Research. For this latter lectureship, Ben Alman came to Toronto from Duke University deliver the lecture in his name and honour entitled, "49", a lecture which described the differences and similarities in academic surgery between United States and Canada across the 49th parallel.

Stacy Krumholtz was hired as a new medical illustrator, and she has been very active in preparing posters, electronic newsletter items, and logos for our faculty.

Thanks to the efforts of Dr. Barry Rubin, he started the first ever *Residents Practice Management Seminar* which included topics such as how to start your clinical practice, how to hire administrative assistants, incorporation, tax advice, alternate funding plans, fee for service practice and academic versus community practice startups.

The Department of Surgery Book Club was very active and covered 3 books, including *The Spirit Catches You and You Fall Down* by Anne Fadiman, *Five Days at Memorial*, by Sheri Fink,

and Leo Tolstoy's *The Death of Ivan Ilych*. These book clubs as organized and hosted by Karen Devon, have been highly successful.

Darina Landa left the Department of Surgery as Senior Development Officer, and in her stead David Grieco was hired. Darina has entered the Dean's office as the current, Interim Head of Advancement in the Faculty of Medicine.

In terms of Advancement highlights, the Department of Surgery raised \$2.4 million this past year. Many divisions have 100% faculty support. To date the Department of Surgery has raised \$23.5 million in support of the *Boundless Campaign* in the Faculty of Medicine. These are tremendous milestones about which we can feel quite proud in the fundraising world in the Department of Surgery.

A Research Strategic Planning Retreat was held on January 23, 2015 entitled, "Embracing the Continuum: From SSTP to Faculty Scientists". Michael Fehlings, as Vice Chair of Research, led this retreat, and action items included pursuing alternate funding sources, developing career planning resources, ensuring a smooth transition for new faculty recruits and, investing in information sharing strategies among others things.

In education, there were enhancements in the Prep Camp at the Surgical Skills Centre; there were improvements in the Surgical Foundations Course led by Dr. Maurice Blitz; and the Division of Orthopedics received Royal College Accreditation for its Competency Based Assessment and Training Residency. Efforts are being made to coordinate the new Faculty Development day format with the Department of Anesthesiology at the University of Toronto.

In terms of Continuing Professional Development, this past year total sponsorships came in at \$670,000 with over 2,000 learners, all of these being led by Dr. Terry Axelrod.

For Quality and Best Practices, a new resident curriculum was organized by Najib Safieddine, Tim Jackson, and Joe Papia. Several faculty graduated from the IDEAS Program, Robin McLeod's Quality and Best Practices Committee tackled the Readmissions Rate Project across hospitals, and patient centered care guidelines were being initiated.

For Faculty Development, Ori Rotstein and Paul Greig developed the final plans for the Mentorship Program with divisional representatives identified. Workshop training will be undertaken through Continuing Faculty Development. The late career transition guidelines were established and voted upon and they are now accepted within the Department of Surgery.

In Global Surgery, a new academic job description, entitled Surgeon Global Health was established. Numerous capacity building projects are ongoing. In global surgery the prospectus is in completion stages.

In terms of research funding, this past year, the Department of Surgery received, \$43 million in peer reviewed research dollars. The amount of CIHR funding was relatively stable at \$24 million. This past year, there were 38 residents in the Surgeon-Scientist Training Program, a record number. As this represents a significant cost to the Department of Surgery, we are always looking ahead to better ways to endow this program.

Several new Research Chairs were established including The Hanna Family Chair in Surgical Oncology research held by Natalie Coburn; a Tier II Canada Research Chairs in Simulation and Surgical Safety held by T. Grantcharov; a Chair in Skull Base Neurosurgery at Toronto Western Hospital held by Fred Gentilli; the Second Garron Family Chair in Childhood Cancer Research held by Peter Dirks; an Interim Chair in Cerebrovascular and Brain Tumor Surgery Toronto held by Julian Spears; and the Wilkins Family Chair in Neurosurgical Brain Tumor Research at UHN held by Gelareh Zadeh.

This year, Gallie Day was held at the MaRS Discovery Site and Clifford Ko from the University of California, Los Angeles was the Gordon Murray Lecturer for 2015. A mini-symposium was

held on the topic of "Big Data". The Award Winners for Gallie Day this year included to Usmaan Hameed for the Zane Cohen Clinical Fellowship Achievement Award, Homer Tien for the Tovee Undergraduate Prize, Jefferson Wilson for the Shaffie Fazl Award, Andrew Pierre for the Tovee Postgraduate Prize, Steven Fremes, for the Charles Tator Mentoring Award, H. Yan for the D.R. Wilson Award, Girish Kulkarni for the Bernie Langer Surgeon-Scientist Award, Jeremy Hall Surgical Skills Distinguished Educator Award, Marcelo Cypel for the George Armstrong Peters Prize, and Emil Schemitsch won the Lister Prize. Lavina Lickley won a special Recognition Award given by John Semple. Finally, Karineh Kazazian received the Gallie-Bateman first prize award.

Many of our faculty won significant career awards, and these are too numerous to fully document here. However, some highlights included Michael Fehlings, Fellowship in the Canadian Academy of Health Sciences; Peter Ferguson, the 2015 Donald R. Wilson Award from the Royal College of Physicians and Surgeons of Canada; Shaf Keshavjee Officer of the Order of Canada and Canada First Research Excellence Fund; Lawrence Klotz, Member of Order of Canada; Bernie Langer inducted into the Canadian Medical Hall of Fame; Augustino Pierro, Officer to the Order of the British Empire; David Williams, Order of Ontario.

Many of our faculty received peer reviewed grants, and again these are too numerous to mention here. Some highlights included a NIH R01 Grant to Dr. Robert Nam, a \$1.25 million Brain Canada Grant to Michael Taylor, a \$3.7 million grant to Michael Tymianski from the NIH and a \$6.6 million Grant from Brain Canada. Jay Wunder and Ben Alman received a NIH Grant of \$1.7 million, and Taufik Valiante and

Andres Lozano received a Canada MRI Grant for \$1.5 million.

Perhaps not surprisingly, given the times, The Department of Surgery is facing some fiscal constraints as we continue to watch the fall of our carry forward these past 5 years. This will become a major platform for discussion over the next several months. But when considering financial support for all faculty, some of the principles we espouse are our continued support for faculty in the first 3-5 years of their appointment, for those who are actively engaged in the Department's Strategic Plan, and support for those who have achieved high scores on their annual assessments of productivity.

This was the state of the union as I saw it for our Annual Report for this Academic Year.

I sincerely look forward to working with all of you towards our many departmental surgery goals over the next year.

Sincerely,

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



# Research Report Michael Fehlings, Vice-Chair Research

As we wrap up a stellar academic year in research in the Department of Surgery, I start by thanking the Research Committee and as well as everyone else for making my first year as the Vice Chair Research, a year of accolades and unabashed excellence throughout the teaching hospitals and University of Toronto. Over 220 surgeon-investigators, surgeon-scientists, surgeon-teachers and scientists continue to outshine other departments with their research profiles.

We embark on high impact work that has an intense effect on surgical care, from bench to bed-side. Year after year the number of high-impact journal publications continues to grow. Over 1,000 peer reviewed papers are published annually by Departmental members. An analysis conducted for the Department of Surgery 5-year review of the publications within the Faculty of Medicine in the University of Toronto between 2010-2014 reveal a total number of publications of 35,705. The "Surgery" journal publications accounts for approximately 5% (2,447 publications) of the entire University's publication output. The Field Weighted Citation Impact for Surgery output is 1.54. The world average citation impact is 1. If an institute's citation impact output is below 1 the institute is performing below the world average. If an institute's citation impact output is above 1 the institute is performing above the world average. Of the top 50 most prolific authors/investigators in the Faculty of Medicine at the University of Toronto, 10 (20%) are within the Department of Surgery. When ranked against some of the other major institutions in North America, the Department of Surgery at the University of Toronto compares favourably with Harvard Medical College, Duke University, University of Washington, UCSF, and University of Pittsburgh.

Our faculty and trainees continues to be invited to present their research throughout the globe and participate in thousands of national and international research meetings. The increased competitiveness of research funding from agencies such as Canadian Institutes of Health Research, CCSRI, and other such agencies remains. That being said, it is a major credit to our staff and trainees work that they were successful! Our department members continue to be awarded new grant at an impressive pace. The list is extremely long. Here are a few samples of our immensely gifted researchers. Nancy Baxter, Sunit Das, Peter Dirks, Joao Baptista de Rezende, Paul Karanicolas, Ren-Ke Li, Michael McKee, Avery Nathens, Aaron Nauth, Anthony Perruccio, Emil Schemitsch, John Semple, Katalin Szaszi, Subodh Verma and Toni Zhong, were among the abundant number of faculty who received new grants this year from CIHR. Congratulations to Peter Dirks for a phenomenal year. Not only did he receive a 5 year grant from CIHR, he also received a two year grant from CCSRI and 3 year grant from Terry Fox Research Institute. Nancy Baxter continues to amaze us with attracting more grants. She was also awarded a 4 year grant from Canadian Breast Cancer Foundation. Sean Cleary received a two year grant from Canadian Liver Foundation. Steven Gallinger was among the team to receive a two year grant from OICR for over \$5M. Shaf Keshavjee and Mingyao Liu certainly make us all proud to have them among the stars who attract funding, such as Ontario Ministry of Research & Innovation, and Canadian Foundation for Innovation (Innovation Fund) for over \$1M. Add to this, \$2M three year grant from Genome Canada. Other grants include Cystic Fibrosis Canada, Canada First Research Excellence. Michael Fehlings received

several amazingly large grants (please insert). Our total research funding continues to surpass that of even many of the Universities in Canada. In 2014 funding was over \$43,500,000.

The Surgeon Scientist Training Program (SSTP) remains as a very significant training program for residents at the graduate level in research. 2015 academic year starts with 15 new residents and 23 continuing residents enrolled in the SSTP. 87% of our SSTP trainees were successful in receiving full or partial salary support from external granting agencies. Special thanks to CIP-MOH funding, 7 of our SSTPs were awarded full funding from the Clinician Investigator Program.

Benjamin Alman's transitioned to Duke University to be Chair of the Department of Orthopaedic Surgery after serving as Vice Chair Research for 7 years in Department of Surgery at UofT. Since Ben incorporated many new concepts and initiatives into the research portfolio, the Executive Committee voted in favour of renaming the Research Rounds to the Ben Alman Research Rounds. Ben was the first speaker on January 9, 2015. His talk entitled "49" was a magnificent overview on understanding what Americanadian means. Also we learned about the role of beta-catenin in mesenchymal biology and how targeting this molecule with a drug can improve surgical outcomes. Ben's his final point was on the contrast and comparison between US and Canadian innovation pipelines. The 2016 Ben Alman Rounds will be on Friday January 8, 2016 by Lisa McKerracher, PhD; CEO, BioAxone BioSciences,

Cambridge, MA - "The translational pathway of a novel strategy to facilitate CNS regeneration: From discovery to consumer delivery".

Each year we strive to improve Gallie Day. The 41st Gallie Day celebration was no different. Drs. James Rutka and Michael Fehlings reflected on the major social, medical, scientific and political changes which have occurred over the past 41 years. The theme of this year's Gallie Day was "Is Bigger Better? Opportunities, Challenges and Limitations of Big Data in Health Research". The ways in which surgeons apply big data have many things in common with other fields of medicine and yet at the same time are associated with unique challenges which differ from those confronted by other disciplines. Could we be doing more, collecting data through alternate sources? What are the key limitations? What will be the next "disruptive" analytical approach? The opportunity to exploit big data to provide novel insights into disease pathobiology, optimize patient care strategies or influence health policy are all opportunities for surgeons as translationally oriented researchers and as health care leaders. These challenges exemplify the core of what it means to be an academic surgeon and researcher.

The "big data" symposium, which was chaired by Michael Fehlings featured 4 outstanding speakers. Geoffrey Anderson presented his viewpoints in his talk, entitled "Linking Broad and Deep Data to Create the Infrastructure for Discovery Research". Professor Anderson discussed the importance of creating interdisciplinary collaborative networks of researchers to explore novel areas of science. Nancy Baxter expressed her perspectives and clinical interests as they connect with health research with her talk, entitled "Volume, Variety, Velocity, Veracity - How do we harness the power of big data for health research?". Dr.

Baxter gave important perspectives on the power of "big data" to refute conclusions on best medical practice based on small biased datasets. Steven Gallinger's talk entitled, "Big Data in Cancer Genetics Research - It Isn't Easy, but it's Worth It" discussed the impact of large international datasets to provide novel insights into cancer pathobiology. Avery B. Nathens' talk entitled, "From Crashes to Care to Prevention: Tales of Big Data in Injury Control" described the use of large administrative datasets to improve systems of trauma care delivery. 2015 Gordon Murray Lecturer was Dr. Clifford Ko (Professor of Surgery, UCLA School of Medicine; Director, Division of Research and Optimal Patient Care, American College of Surgeons), entitled, "Perspectives on Data for Achieving Quality of Care".

This year, we introduced a new way of presenting and viewing posters. Electronic Posters or E-Posters are similar to traditional paper posters, but displayed on-site on a large LCD screen. E-Posters increase poster visibility after the event, providing another highly effective platform for promoting continuous education and extending the meeting lifecycle with options to share, comment and even raise questions to the author. E-Posters are a modern, attractive and innovative way to display traditional paper posters. E-Posters save space and cost of printing paper and at the same time allow for the application of modern electronic presentation formats. We had a record number of abstracts submitted by trainees working with our faculty. There were 10 platform presentations and 74 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 tremendously high quality research being conducted in our Department.

We had 10 outstanding 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. First prize went to Karineh Kazazian (Roland Xu, Hannah Wu, Christopher Go, Olga Brashavitskaya, James W. Dennis, Carol J. Swallow), for her presentation on "The protrusional protein polo-like kinase 4 (plk4) enhances cancer invasion" (Supervisor: Carol J. Swallow); second prize was awarded to Andrea M. Covelli (Nancy N. Baxter, Margaret I. Fitch, Frances C. Wright), for her talk entitled, "Examining health-beliefs: Why mastectomies are on the rise" (Supervisors: Nancy N. Baxter, Frances C. Wright); third prize was given to James P. Byrne (Wei Xiong, David Gomez, Homer Tien, Avery B. Nathens), for his very interesting presentation entitled, "When is dead "dead"? Identifying the unsalvageable patient for the purpose of performance improvement" (Supervisor: Avery B. Nathens). Gallie Bateman prizes were also awarded to e-Poster presenters. First e-poster prize was awarded to Dale Podolsky (David Fisher, Karen Wong, James Drake, Christopher Forrest) for his e-poster entitled, "Development of a robotic approach to cleft palate repair" (Supervisors: James Drake & Christopher Forrest); second prize tie goes to Natashia M. Seemann (Tamara I. Gimon, Dorotea Mutabdzic, Vicki R. LeBlanc, Carol-Anne E. Moulton) for her presentation entitled, "The complex phenomenon of stress in the operating room" (Supervisor: Carol-Anne Moulton), and Ashton A. Connor (Michelle Chan-Seng-Yue, Robert E. Denroche, Ayelet Borgida, Sheng-Ben Liang, Lincoln Stein, Michael H. Roehrl, John McPherson, Faiyaz Notta, Steven Gallinger) for his work on "Insights into tumour evolution from whole genome sequencing of metachronous pancreatic ductal adenocarcinoma" (Supervisor: Steven Gallinger).

The McMurrich Awards are presented to research trainees who are not in the Surgeon Scientist Training Program. The oral presentations were phenomenal. The first place award was won by Hiroyuki Kawajiri (Laura Tumiati, Arash Ghashghai, Julieta Lazarte, Liza Grosman-Rimon, Filio Billia, Ren-Ke Li, Mitesh Badiwala, Jagdish Butany, Vivek Rao) for his oral presentation, entitled, "Nrf2 protects against ischemia reperfusion injury via inhibition of Nf- b activation and suppresses subsequent development of cardiac allograft vasculopathy in murine heart transplan-

tation" (Supervisor: Vivek Rao). Simon P. Kelley (Chunying Yu, Heather Whetstone, Benjamin Alman) received second prize for his oral presentation entitled, "Fgfr3 regulates fracture repair by controlling the balance of intramembranous and endochondral bone formation" (Supervisor: Benjamin A. Alman). Third prize was received by Michael Chang (Suzie Dufour, Taufik A. Valiante), for his work entitled, "Optogenetic activation of interneurons triggers ICTAL events in in vitro and in vivo seizure models" (Supervisor: Taufik A. Valiante).

McMurrich Awards were also bestowed upon a group of individuals who presented amazingly stupendous e-posters. There were two first prize ties as well as two second prize ties. First prize ties go to Kasra Tajdaran (Matthew D. Wood, Molly S. Shoichet, Tessa Gordon, Gregory H. Borschel), entitled, "GDNF sustained release from a surgically implantable hydrogel makes decellularized nerve allografts as effective as isografts in supporting nerve regeneration" (Supervisor: Gregory H. Borschel), and Jonathan W. Yau (Krishna K. Singh, Fina Lovren, Yi Pan, Adrian Quan, Azza Ramadan, Pratiek N. Matkar, Mehroz Ehsan, Paul Sandhu, Laura E. Mantella, Nandini Gupta, Hwee Teoh, Matteo Parotto, Arata Tabuchi, Wolfgang M. Kuebler, Mohammed Al-Omran, Toren Finkel, Subodh Verma), entitled, "The essential autophagy gene ATG7 modulates organ fibrosis via regulation of endothelial-to-mesenchymal transition" (Supervisor: Subodh Verma). Second prize ties were awarded to James Y.L. Hong (Jian Wang, Yang Liu, Mahmood Chamankhah, Anna Badner, Reaz Vawda, Michael G. Fehlings) for his presentation entitled, "Timing of cell therapy for spinal cord injury should be level dependent: Evidence for temporal differences in inflammation" (Supervisor: Michael G. Fehlings), and Ekaterina Turlova (Christine Youjin Bae, Marielle Deurloo, Wenliand Chen, Andrew Barszczyk, F. David Horgen, Andrea Fleig, Zhong-Ping Feng, Hong-Shuo Sun), entitle, "TRPM7 regulates axonal outgrowth and maturation of primary hippocampal neurons" (Supervisor: Hong-Shuo Sun).

Faculty research awards went to Girish Kulkarni (Surgeon Scientist, Urology) - 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; Marcelo Cypel (Surgeon Scientist, Thoracic 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; Stephen Fremes (Surgeon Investigator, Cardiovascular 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; Emil Schemitsch (Surgeon Investigator, Orthopaedics) - 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 fifth 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 Jefferson Wilson (PGY VI, Neurosurgery), a recent SSTP graduate who obtained his PhD with Professor Michael Fehlings. 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 Usmaan Hameed (PGY VII, Surgical Oncology). 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 Homer Tien (Surgeon Investigator, General Surgery), and Andrew Pierre (Surgeon Teacher, Thoracic Surgery) 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 Jeremy Hall (Surgeon Teacher, Orthopaedics). D.R. Wilson Award for teaching is made annually to the surgical resident who is rated by undergraduate students as being an outstanding teacher. The recipient of this award was a resident whose teaching has been highly evaluated by medical students. The resident demonstrated both a positive attitude toward teaching and was considered a good surgical role model for undergraduate medical students, which went to Hanmu Yan (PGY IV, Urology).

The 48 judges for the e-poster competition as well as the 16 timers, who volunteered their time for the e-poster judging deserve special thanks, as well as the Research Committee members and Drs. Marc Grynpas, Helen MacRae, Joao Rezende-Neto, James Waddell, who assisted in reviewing and judging the oral presentations. As we revel 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, Gideon Cohen and Gail Darling for proficiently moderating the sessions, and Sylvia Perry for making sure the day's and evening's preparations were adhered to perfection. As we enjoyed our meal, we had a beautiful intermission with amazing piano playing by none other than our own Chair, Dr. James Rutka. Allison and Ariel Kwan, who are sisters, joined Dr. Rutka. Ariel played the violin. Ariel and Jim did the first two pieces together. Allison and Ariel did the third piece together. The second piece that was played was composed by Dr. Rutka. Ariel is a second year pharmacy student at UofT studying at the Leslie Dan School of Pharmacy. Allison is an allergy/immunology fellow at Sick Kids this year.

Michael Fehlings hosted the first PGY 1 and PGY 2 Research Orientation on October 2, 2014 at the PGCRL Gallery. Over 50 residents, SSTP trainees, former SSTP trainees and staff attended the event. Jim Rutka welcomed everyone and stated that the SSTP was the best Program worldwide for residents to pursue a degree in their 3rd or 4th 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. David Urbach Summary points: 'Clinical Epidemiology' includes a variety of health research methodologies, including clinical trials, observational epidemiology, cost-effectiveness analysis, health economics, health policy research, evidence-based guidelines, meta-analysis, administrative data analysis, quality of care research. It is NOT just 'critical appraisal'! -The best place to do training in clinical epidemiology/health services research is Toronto, not Harvard, not Johns Hopkins, not Hamilton, not anyplace else in the world. Abhaya Kulkarni summarized his perspective on the benefits of clin epi research: it's versatile, it's immediately gratifying and impactful, it's relevant to everyday clinical dilemmas, it can help you become a better clinician. Carol-Anne Moulton stated she was encouraged to undertake research studies in surgical skills training as a graduate student in Health Professional Education as a fellow at the Wilson Centre and University of Toronto. She received a Masters of Education in 2006 and continued as a graduate student enrolling in a PhD program with the Institute of Medical Science studying surgical judgment. The Wilson Centre offers excellent research opportunities for those interested in pursuing a Masters of Education through OISE. Andras Kapus emphasized that there are over 40 scientists in the Department who are excellent researchers in an array of research areas and interested in supervising residents in the SSTP. Carol Swallow gave an overview of her training as a SSTP trainee in General Surgery. She received her PhD in cell biology under the mentorship of Dr. Ori Rotstein in 1993. When she started in the lab, she had no idea where to start, in terms of research experience. She stressed that there are many high and lows as you are pursuing your degree through the SSTP. The highs outnumber the lows and you develop collaborative support that you don't think existed. Gelareh Zadeh gave an overview of

her own training as a SSTP neurosurgery resident and early/junior faculty, highlighting the value of the collaborative and supportive environment at University of Toronto and the wealth of expertise and long-standing tradition of successfully training and establishing surgeon-scientist. She summarized specific key factors necessary for succeeding as a surgeon scientist including: selecting the best mentor, research environment, collaborations, time management and time commitment. She reviewed some of the advantages of a career as a surgeon scientist, including the ability to intellectually advance the field, strengthen surgeon's evidence based practice of medicine through translational research, provide the individual surgeon with the luxury of enjoying a diverse practice with both clinical and scientific challenges and evolving practice over-time, in addition to building one's own personal research team that can answer specific questions of interest to your subspecialty. Overall, a challenging yet extremely rewarding career path. Kim Tsoi summarized her experience as a SSTP trainee. She started a PhD after two years of clinical training, conducting the majority of her research in a lab at IBBME under the supervision of a basic scientist with guidance provided by a surgeon. She touched on the steep learning curve one can encounter when starting in the lab but how that translates into a very rewarding experience when one is then able to ask and answer scientific questions efficiently. Finally, she summarized what she believes are to be the strengths of the SSTP in Toronto: protected time to do research and to develop ancillary skills required to be a good surgeon-scientist (e.g. reviewing papers, grant writing, presenting at scientific meetings), wealth of opportunities both in terms of areas of research and facilities, financial support. As a former SSTP trainee, David Cadotte outlined the perspective of a recent graduate of the SSTP - He emphasized the different skill sets that he acquired during the Program including the ability to ask specific research questions, design experiments to address these questions, write grants to fund such projects and finally communicate the results of such studies to the clinical and research communities. He also emphasized that research is a very creative process - and while very different from the inherent methodical/ systematic/disciplined aspects of clinical medicine - having skill sets in both fields ultimately allows for improvements in the way we care for patients. He encouraged the PGY1 and 2 residents to take advantage of the opportunity to develop research skills within the protective and supportive environment of the SSTP.

Michael also had the first Strategic Planning retreat under his regime, which was held on January 23, 2015. Over 65 staff and residents participated throughout the day. Also the speakers of each of the topics were excellent. Thanks to Joanna Giddens for preparing the Retreat Summary, with exceptional recommendations from the staff and SSTP residents. There are obvious action items that resonate most and should be instigated within a short time. The Panel discussions were very well received and several topics will be highlighted to the Executive Committee. The recommendations for action resulting from the Retreat spanned across 3 major domains: Funding, career planning, and sabbaticals. Funding goals include the pursuit of alternative funding sources and increased opportunities for information sharing. Action items will include the facilitation of alignment between the Department of Surgery and the hospital Research Institutes, bridge and/or seed funding packages for new faculty, and increased involvement of trainees in grant preparation and idea generation. Career planning goals speak to the development and accessibility of career-navigation resources that are appropriate for new recruits through later-career level faculty. Action items include "Path to Promotion" packages and mentoring programs for new staff, peer mentorship for mid-level faculty, and transition mentorship for later-career faculty. Other strategies include Divisional "Career Nights" and technological skill renewal through CPD course offerings. Sabbatical goals begin with defining the values and expectations of a sabbatical within both the University and sabbatical contexts. Action items include assembling an inventory of previous and current sabbatical plans, including the analysis of un/successful plan elements. This will provide the groundwork necessary to initiate discussion of designing and implementing a

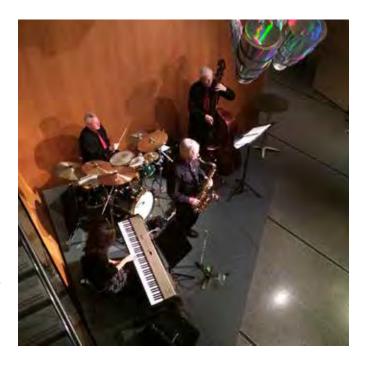
Department-wide sabbatical policy. Retreat Report is a very important first step in planning the future of the research community in the Department of Surgery.

The first "Career Night" for the SSTP trainees will be held on Friday February 9, 2016. Survey by the SSTP Research Committee representations reported that an overwhelming amount of residents would attend a career night. Topics that residents would like addressed: how to negotiate a contract, start-up funding, applying to US positions (e.g. pre-requisites), how to market yourself, clinical-research balance, managing your online persona. Residents would be interested in hearing from junior faculty (compared with senior faculty), especially those who have completed the SSTP. There is interest in hearing from surgeon-scientists who conduct research in all the major domains (clinical epidemiology, basic science, education, translational research). More than half the residents are very concerned about their job prospects in academia. They asked residents where they would ideally like to practice. More than half would prefer anywhere in Canada. They asked residents how they envision splitting their clinical/research time. Over 60% preferred 50% clinical/50%research. Stay tuned to invitations and agenda in the very near

Research plays an incredibly important role in our department and we have made astonishing accomplishments in the past year. There is no doubt in the upcoming years our research activities will continue to expand, with new avenues of investigation being developed, and improvements in our research infrastructure to increase the breadth and depth of our work, ultimately improving the outcome for our patients.

A very special thanks goes to Val Cabral for her dedication and commitment to making the Research Office and all aspects connected to it an excellently run part of the Surgery Department.

Holiday Party 2014



#### Breakfast with Chair





# Postgraduate Education Ron Levine, Director

The Department of Surgery at the Postgraduate level is the largest in Canada with 275 residents and 262 clinical fellows. There have been many accomplishments and successes in the 2014-2015 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 1st 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 2015.

The surgical skills prep camp entered its second year during 2014-2015. 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.

There are a number of academic days to enhance the educational experience of the surgical resident. In July 2014, the Core Surgery residents attend "The Surgeon in Society" where medical legal issues are discussed. This is run by Dr. John Bohnen, Dr. Karen Devon and Dr. Ron Levine. Dr. John Murnaghan runs "Residents as Teachers" for the PGY1 and 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. In May 2015 there was the annual Life in Surgery event coordinated by Dr. Carol-Ann Moulton. The Life in Surgery Committee aims to promote student interest in surgery, facilitate mentoring relationships with surgeons, and most importantly, to provide students with greater insight on the lifestyle of those who pursue surgical careers. The evening provides medical students the opportunity to talk directly with faculty from the surgery department as well as their spouses and children.

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 Can-MEDS 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 262 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 275 residents, 262 fellows and 250 faculty members is a huge endeavor. This is masterfully done by Tess Weber and Robert Gardin.

#### Murnaghan Art Display





### Undergraduate Education George Christakis, Director

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

Crash Course in Surgery: Under the stewardship of Melinda Musgrave, plans for the revised Crash Course in Surgery, starting September 2015, were formalized. The new format, named 'Prelude to Surgery,' 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.

General Surgery mandatory 3-week sub-rotation effective September 2015: Underlining the importance of providing a basic surgery education for all clerks, the Undergraduate Education Committee recommended that General Surgery be made a mandatory 3-week rotation. This is effective September 2015 at all academies except at the Mississauga Academy of Medicine.

Guaranteed 1 in 4 'in hospital' overnight call: It has further been decided that the existing 1:4 in-house, overnight call for clerks be

formalized and strictly enforced. 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 (LInC) project: The first year of the Longitudinal Integrated Curriculum was successfully completed with all 7 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: Of note, this year the Surgical Education And Discovery (SEAD) program increased its participants by 50 percent. 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.

#### Celebratory dinner for Darina Landa





## Continuing Professional Development

Terry Axelrod, Director and Chair

#### **Overall CPD Goals**

In keeping with the Faculty of Medicine's key strategic priorities for CPD:

- Enhance Best Practice & Faculty Development for Continuing Education
- Advance Research, Innovation & Scholarship
- Strengthen & Grow Practice-Based Education
- Foster & Embed Quality Improvement in Continuing Education
- Promote Patient & Public Engagement

#### 2014-15 Activities

- 25 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 (450), Urology Update 2014 (221) as examples.
- New programmes introduced including the Competency Based Education Training Workshop and continuation of new courses such as the Burn Symposium.
- Many faculty members involved as Chair and faculty in CE events nationally and internationally outside of the CPD jurisdiction

#### **Objectives for 2015-16**

- The Department of Surgery is working with the Vice Dean of Continuing Education to serve as a "Test Department" for the implementation of a new model of CE event funding and management. Discussions are underway in order to maximize our Departmental benefit of using the resources available through the University CE organization.
- Changes in our management model and our Departmental relationship with CE are underway.

#### Fellows Barbeque 2014





# Office of International Surgery

Andrew Howard, Director

Global Surgery is receiving increasing attention particularly due to findings of the Lancet Commission on Global Surgery. The best estimates to date show 3.6 billion to 5 billion people effectively lack access to surgical care. Correcting this would relieve 30% of the worlds burden of morbidity and mortality. An ambitious plan envisioned by the Lancet commission would see surgical care for all by 2030.

#### **Ptolemy Project**

This project offers full text downloads of all holdings of the University of Toronto libraries to surgeons practicing in low income countries. It has continually operated for 16 years and has served millions of downloads. Currently over 700 health care providers have library access of whom over 400 are surgeons or surgical trainees. The largest concentration of surgical users are trainees in the COSECSA (College of Surgeons of East, Central and Southern Africa) regions.

#### **Surgery in Africa**

In 2015 we ran a ten module fully interactive online journal club for COSECSA trainees using a Moodle platform within the COSECSA website. Collaborators includes the Royal College of Surgeons of Ireland, and Dr. Brian Cameron from McMaster University. Among 59 participants who completed the modules we measured a substantial increase in knowledge of evidence based medicine concepts. Trainees were eager and intelligent participants in online discussion forums. One group of trainees published a summary of their participation in the compartment syndrome module as a review article in the East African Journal of Surgery. Thanks to Tara Aird, our new editor, for an excellent year for this project.

#### **Prakash Foundation Fellowships**

In 2015 three fellows trained in Toronto under this program. Samuel Hailu of Ethiopia pursued a one year fellowship in orthopaedic trauma and arthroplasty under the supervision of Markku Nousianen at Sunnybrook Hospital. Hanna Getachew completed six months of paediatric general surgery training with Ted Gerstle of Sickkids. Finally, Andrew Perry of Trinidad and Tobago began a one year fellowship in breast oncology and oncoplastic reconstruction supervised by Ralph George of St. Michael's hospital. Plans for next year include doubling the available funding and increasing the opportunity for trainees from low income countries to receive specialized training in Toronto.

#### **Greg Wilkins Barrick Chair in International Surgery**

#### Visiting Scholars

Ms. Zuha'a Khan, a senior medical student from Windsor Medical School in the Caribbean spent one month observing, December 15 – January 15, 2015.

Dr. Miguel Marigil a senior resident from Pamplona Spain spent one month observing March 7 – April 7, 2015.

Ms. Parisa Fallah, undergraduate student from the University of Texas spent June, 2015 executing a qualitative research study on barriers to individuals participating in international surgical activities.

#### **Clinical Fellowship**

The Greg Wilkins – Barrick Fellowship provided the salary for Dr. Abat Baleh one of three practising teaching surgeons in Ethiopia, to learn special techniques in neuro-oncology at TWH August 1, 2014 – July 30, 2015. This included awake brain tumour surgery, Gamma Knife radiosurgery for both benign and malignant brain tumours, endoscopic transsphenoidal skull base surgery, clinical approaches to the management of brain tumour patients, and systems approaches to efficient, safe, and cost-effective management of brain tumour patients. He was also exposed to methods in neurosurgery research and biomedical writing. The skills and knowledge he acquired will translate directly to his future patients in the practice of surgical neuro-oncology in Addis Ababa, Ethiopia and throughout the country via training of residents, hopefully improving neuro-oncology in that country.

#### Teaching Missions in Resource-poor Countries

The Chairholder took a team to Kiambu, Kenya in October 2014 to help a local neurosurgeon establish a brand new neurosurgery unit at Kiambu District Hospital. Among other things the first ever awake craniotomies were taught and the team brought numerous instruments from TWH. The team members were Dr. Lashmi Venkatraghavan, anesthetist, Dr. Mehdi Shahideh, neurosurgeon, Ms. Heather Wyers, OR nurse, and Ms. Stephanie Michael, OR nurse. Seven surgeries were successfully done in spite of substantial challenges. During the mission the Chairholder was asked to speak to the 190 students at a highschool in Kiambu in which the local host neurosurgeon Dr. Peter Wanyoike is active (he grew up nearby). The Chair pledged a donation of \$22000.00 to build a library for this school, which is very impoverished, as are all its students. The library will help students gain interest in science and hopefully medicine, and ultimately neurosurgery as Kenya's 45 million people have access to only about 15 neurosurgeons (roughly one tenth the number in Canada).

The team returned to Kiambu March 1-7, 2015 to continue this initiative. Team members included the Chairholder, Ms. Heather Wyers, OR nurse, and Ms. Emma Robertson, OR nurse. Much equipment was brought and 10 surgeries were successfully done. While there the Chairholder lectured at the Kenyatta National Hospital/University of Nairobi about awake brain tumour surgery.

# Acculturating/Education for the Future of International Surgery

The Chair supported a mission for Dr. Anick Nater to travel to Lusaka, Zambia for two weeks in August, 2014 to help the local neurosurgeon Dr. Kachinga Sichizya, who the Chairholder helped in November, 2013. Dr. Nater helped in surgery and also helped Dr. Sichizya set up data bases to log his cases and engage in outcomes research.

The Chair inaugurated an award to help neurosurgeons in the developing world hold a Neuro-Oncology Symposium locally with international experts but geared at practitioners within the developing world context. The value is \$10,000.00 and was advertised and administered through the Society for Neuro-Oncology. The first competition results were announced at the Society for Neuro-Oncology Meeting in November 2014 in Miami, Florida. The first such symposia will be held in 2015 in Malaysia Dr. Jafri Abdullah, University of Sains Malaysia, Kelantan, Malaysia), and Peru (Dr. Willian Valverde, National Institute of Neoplastic Diseases, Lima, Peru).

The first WINS-Greg Wilkins Barrick Scholarship was awarded to Dr. Mahjouba Boutarbouch, MD, who is a neurosurgeon and an associate professor at the Department of Neurosurgery, Hôpital des spécialités, ONO, CHU Ibn Sina, Faculty of Medicine at the University Mohamen Vth Souisssi in Rabat, Morocco. She was supported to attend the Congress of Neurological Surgeons Meeting in Boston, MA, October 2014. See link: http://www.aansneurosurgeon.org/8/women-in-neurosurgery-in-

ternational-initiatives/

Cerebrovascular Diseases.

The second WINS-Greg Wilkins Barrick Scholarship was awarded to Dr. Ling Feng who was the first female in China to be granted a PhD in neurosurgery and neuropathology and is Professor of Neurosurgery and doctoral supervisor of the Capital Medical University (CMU), Chair of the Neurosurgical Department and Director of the Neurointerventional Center of Xuanwu Hospital affiliated to CMU, and Director of the Beijing Center of

The Chair provided the costs of the COSECSA qualifying exams for Dr. Benjamin Okanga, neurosurgery resident at the University of Nairobi, Kenya.

The Chair supported Dr. D. Guha, neurosurgery resident, University of Toronto, to attend the Inauguration of the Institute of Neurosciences of Kolkata, Kolkata, India, November 2014.

The Chair supported Dr. A. Mansouri, neurosurgery resident, University of Toronto, to attend the Society for Neuro-Oncology Meeting, Miami, Florida, November 2014.

The Chair supported a Toronto contingent to help run a World Federation of Neurosurgical Societies Neuro-Oncology Course in Mumbai, India in January 2015. Included were the Chair Holder who gave 2 lectures and participated in case discussions, Dr. Karolyn Au, Neuro-Oncology Fellow at TWH who delivered 4 lectures and participated in case discussions, and Ms. Sandi Amaral and Ms. Jennifer Glen who provided administrative support for the Meeting.

The Chair supported medical student Tiffany Ngai to spend 7 weeks on a medical selective in San Jose, Costa Rica February and March, 2015.

The Chair supported medical student Hala Muaddi to spend 4 weeks on a medical selective in Accra, Ghana, March, 2015.

The Chair supported medical student Elie Sader to spend a week on a teaching mission in Cambodia, April 2015.

The Chair supported neurosurgery George Ibrahim to attend and present at the Bethune Round Table for International Surgery Meeting in Calgary, Alberta June 2015.

#### **Lectures Supported by the Chair**

Bernstein M: Simple qualitative research for surgeons. Aga Khan University Hospital, Nairobi, Kenya, October 2014

Nater A: Lusaka Zambia: A research and neurosurgical experience. University Health Network Spine Surgeons and Anesthetists, September 2014

Bernstein M: Simple qualitative research for surgeons. Aga Khan University Hospital, Nairobi, Kenya October 2014

Nater A: Zambia Mission, Division of Neurosurgery, University of Toronto, November 2014

Mansouri A: Wait times for neurosurgery in a rural Kenyan setting. Botterell Visiting Professorship, Toronto, Ontario November 2014, Winner of Horsey Prize Competition

Bernstein M: NeuroOncology in the developing world. Society for NeuroOncology Meeting, Miami, Florida November 2014

Guha D: The INK Project in Kolkata. Division of Neurosurgery, UHN Rounds, December 2014

Bernstein M: Overview of management strategies and conservative observation management for LGG. WFNS Neuro-Oncology Course, Mumbai, India, January 2015

Bernstein M: Intraoperative techniques to enhance safety of resection. WFNS Neuro-Oncology Course, Mumbai, India, January 2015

Au K, Zadeh G: Overview of management options for brain metastases. WFNS Neuro-Oncology Course, Mumbai, India, January 2015

Au M, Zadeh G: Molecular advances in meningioma. WFNS Neuro-Oncology Course, Mumbai, India, January 2015

Au K: Surgical management of skull base meningiomas. WFNS Neuro-Oncology Course, Mumbai, India, January 2015

Au K: Endoscopy for intraventricular tumours. WFNS Neuro-Oncology Course, Mumbai, India, January 2015

Bernstein M: Awake craniotomy for brain tumor removal Kenyatta National Hospital, University of Nairobi, March 2015

Bernstein M: Neurosurgical ethics in everyday practice. Nursing Professional Development Day, University Health Network, March 17, 2015

Bernstein M: Neurosurgical ethics in everyday practice. Nursing Professional Development Day, University Health Network, March 19, 2015

Bernstein M: Neurosurgical ethics in everyday practice. Medical Student Neurosurgery Interest Group, University of Toronto, March 30, 2015

Bernstein M: Everyday neurosurgical ethics Louisiana State University, New Orleans, Louisiana, April 2015

Wyers H, Robertson E: Medical Mission to Kiambu, Kenya. TWH Nursing Forum, Toronto, Ontario, April 2015

Robertson E, Wyers H: Medical Mission to Kiambu, Kenya. TWH OR Nursing Inservice, Toronto, Ontario, May 2015

#### **Publications supported by the Chair**

Mansouri A, Okechi H, Albright L, Bernstein M: Reconnaissance mission to the Neurosurgical Department in Kijabe Hospital, Kenya: A call for the submission of ideas and strategies. World Neurosurgery 81:3-4, 2014. SRI

Gunaratnam C, Oremakinde A, Bernstein M: Prospectively recording errors is valuable in reducing complications. Health 6:2388-2391, 2014. CPA

Dziedzic T, Bernstein M: Awake craniotomy for brain tumor: Indications, technique, benefits. Expert Reviews in Neurotherapeutics 14:1405-1415, 2014. CPA

Cadotte D, Sedney C, Djimbaye H, Bernstein MA qualitative assessment of the benefits and challenges of international neurosurgical teaching collaboration in Ethiopia. World Neurosurgery 82:980-986, 2014. CPA

Sedney C, Siu J, Rosseau G, Dempsey R, Bernstein M: International neurosurgical volunteerism: a temporal, geographical, and thematic analysis of FIENS volunteer reports. World Neurosurgery 82:963-968, 2014. CPA

Ibrahim G, Bernstein M: Models of neurosurgical international aid: potential ethical pitfalls. Virtual Mentor American Medical Association Journal of Ethics. 17:49-55, 2015. http://virtualmentor.ama-assn.org/2015/01/pfor1-1501.html

Bramall AN, Djimbaye H, Tolesse C, Abebe M, Biluts H, Bernstein M: Attitudes towards neurosurgery in a low income country: a qualitative study. World Neurosurgery 82:560-566, 2014

Mansouri A, Chan V, Njaramba V, Cadotte DW, Albright AL, Bernstein M: Sources of delayed provision of neurosurgical care in a rural Kenyan setting. Surgical Neurology International 6:32, 2015

Ibrahim GM, Cadotte DW, Bernstein M: A framework for the monitoring and evaluation of international surgical initiatives in low- and middle-income countries. PLoS one. 10:e0120368, 2015

Sedney C, Bernstein M: justification, prioritization, and global health: The case of international neurosurgery philanthropy. Journal of Health and Human Rights Journal (submitted)

# Peer-Reviewed Papers Given at Conferences Supported by the Chair

Ibrahim GM, Cadotte DW, Bernstein M: A framework for the monitoring and evaluation of international surgical initiatives in low- and middle-income countries. Bethune Round Table Meeting, Calgary, Alberta, June 2015

Scott Kim, U of T meds 16, was awarded a Greg Wilkins Barrick Scholarship to pursue a fourth year clinical research elective in Ethiopia under the supervision of Samuel Hailu (a recent Prakash fellow) and Andrew Howard.

#### **Global Health Education Initiative**

A module on international surgery, anaesthesia, burden of injury and surgical workforce was taught by Andrew Howard, Greg Silverman, Georges Azzie, Ted Gerstle, and Jim Turner.

#### **Faculty Led Activities**

Numerous U of T surgical faculty lead or participate in clinical educational projects in every continent.

Georges Azzie – Botswana

Peter Chu – Galmi Hospital, Republic of Niger January to May, 2015

**David Fisher** – Operation Smile, Bagota, Columbia November 13-17, 2014Operation Smile, Guwahati, India, February 2-16, 2015. Member of a team of volunteer plastic surgeons.

Ted Gerstle - Doha, Qatar

Andrew Howard (Orthopaedics, Sickkids) again served as overseas examiner for the College of Surgeons of East, Central and Southern Africa for the FCS ortho and MCS examinations in 2015. In addition, he made two trips to Ethiopia to work on implementation of a paediatric orthopaedic curriculum in the largest orthopaedic training program in Africa. Ethiopian colleague Ayana Birhanu obtained a POSNA scholarship to make a return trip to the Paediatric Orthopaedic Society of North America meeting and to participate in a clinical observership at Sickkids.

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

Guatemala Healing Hands Foundation, Hand Surgery/Therapy Mission, Guatemala City, Guatemala, April 14-25, 2015.

Both were hand surgery missions with direct patient care (clinics, surgery, postop rehab) and in Guatemala, we also have a hand surgery/therapy conference in conjunction with the Guatemala Hand Surgery Society.

#### Hockey December 2014





Division of Anatomy Cindi M. Morshead, Division Head

#### **Faculty**

The Division of Anatomy has seen a number of changes in the past year. Two of our professors, Dr. Mike Wiley and Dr. Ian Taylor, retired in June of 2015. Mike and Ian were exceptional teachers and award winning educators who were inspirational to all who knew them, students and faculty alike.

Mike joined the University in 1976 as an Assistant Professor in the Department of Anatomy. Through his illustrious career he served as Undergraduate Coordinator, Graduate Coordinator, and Acting Department Chair. When the Department of Anatomy joined the Department of Surgery in 1999, he was appointed the first Chair of the Division of Anatomy in the Department of Surgery and served in this role for 11 years. Dr. Wiley was the recipient of numerous teaching awards including the President's Teaching Award which is the highest teaching honour at the University of Toronto.

Ian Taylor joined the University in the early 1970's. He was the Director of the Fitzgerald Academy, and served as Director for Structure and Function in the first year medical curriculum for many years. He played a large role in curriculum development and implementation in the pre-clinical years and continued to teach residents and post-graduate students throughout their training. He was the recipient of many teaching awards and accolades, including the Mary E Hollington Award which he received 13 times. The award recipient is chosen by the graduating medical class for excellence in pre-clinical teaching.

We will miss their mentorship, innovation and guidance and wish them the very best in their retirement years.

The Division is thrilled to welcome Dr. Mubarak Bidmos, MD, PhD, as an Assistant Professor, Teaching Stream. Dr. Bidmos completed his MD at the University of Lagos and went on to do his MSc and PhD in Anthropology. He served as the Director of the Anatomy for second year medical students at the University of Witwatersrand, Johannesburg.

Dr. Hong-Shuo Sun was granted tenure and promoted to Associated Professor.

Dr. Barbara Ballyk and Dr. David Chan (co-directors of the Brain and Behaviour course for first year medicine) received the W.T. Aikins Award for Excellence in Course/Program Development. The Award is the most prestigious Faculty award for commitment to, and excellence in, undergraduate medical education. David and Dee were praised for their teaching, organization and commitment and "their ability to take a good course and make it great".

Dr. Mike Wiley received the Dr. Mary Hollington Award, as chosen by the Graduating class. The award recognizes a Faculty member who has taught with distinction in the pre-clinical or basic science portion of the curriculum.

Dr. Paulo Koeberle, Associate Professor, received a CIHR POP grant entitled "Peptide therapeutics for preventing retinal ganglion cell degeneration" (\$150,000) for commercial development of therapeutic peptides to prevent vision loss resulting from glaucoma.

Dr. Cindi Morshead, Professor, received a 3 year NeuroDevNet, CIHR Centres for Excellence grant as co-PI entitled "Testing neural precursors as mediators and facilitators of constraint induced movement therapy in cerebral palsy" (\$440,000).

#### **Student Awards and Accolades**

Katherine Sauks (supervisor Dr. Anne Agur) received her PhD in Rehabilitation Science and won a Gold Medal in rowing at Pan Am games.

Andrew Chow (supervisor Dr. Cindi Morshead) received his MSc from the Institute of Medical Science.

Mark Margharious (supervisor Dr. Paulo Koeberle) received his MSc from Rehabilitiation Science.

Rebecca Ruddy, Phd Candidate, (supervisor Dr. Cindi Morshead) was award the CIHR Doctoral Fellowship.

PhD candidates Ms. Wenjun Xu (supervisor Dr. Cindi Morshead) and Ms. Shannon Roberts (supervisor Dr. Anne Agur) were both recipients of the Carlton Smith Fellowship to support their graduate programs and anatomy teaching within the Division.

#### Mike Wiley and Ian Taylor Retirement Party





Division of Cardiac Surgery Christopher Caldarone, Chair

#### **Highlights**

The Division held a Retreat on November 22, 2014 to evaluate city-wide performance metrics using risk-adjusted data from the Cardiovascular Data Management Center. Although the data was still in development stages, this was the first time that risk-adjusted comparative data was directly available amongst the University of Toronto Cardiac Surgery centres.

#### Recruitment

Mitesh Badiwala was recruited to join the Cardiac Surgery Group at the Toronto General Hospital.

Cedric Manlhiot was recruited to spearhead the Cardiovascular Data Management Center which will integrate clinical data on cardiovascular disease from across the University of Toronto.

#### **Promotions**

David Latter and Subodh Verma were promoted to the rank of Full Professor.

Mark Peterson was promoted to Associate Professor.

#### **Research Grants**

Christopher Caldarone continues CIHR-funded research on pulmonary vein stenosis and participates as site-PI for the CIHR-funded CORRELATE trial.

John Coles and his group secured approximately one million dollars of research funding over the course of the last two years, from various sources including commercial opportunities.

Stephen Fremes holds one grant as Co-Investigator from the CIHR, "Left Atrial Appendage Occlusion Study III (LAAOS III) and was Co-Applicant on another CIHR Operating Grant, "SodiUm SeleniTe Administration in Cardiac Surgery (SUSTAIN CSX-trial)".

Fuad Moussa, participating as Co-Investigator, continues his CIHR-funded research on "Multicentre study designed to determine if point of care testing and ROTEM/Platelet works tests affect the rate of transfusion after cardiopulmonary bypass.

Subodh Verma holds one grant from the Canadian Institutes of Health Research ("In vivo and translational role of endothelial autophagy in the regulation of vascular diseases") and two from the Heart & Stroke Foundation ("The role of autophagy in cardiovascular disease: A bench to bedside translational approach" and "Elucidating the role of BRCA1 as a target to improve endothelial function, promote angiogenesis and attenuate atherosclerosis"). He is also co-principal investigator on a grant from the Canada Foundation for Innovation-John R. Evans Leaders Fund ("Molecular pathology of cardiovascular disease: understanding how gene expression is perturbed in clinical samples")

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

Mohammed Al Jughiman under the guidance of Glen Van Arsdell received First Place in the Resident Poster Competition at the

AATS entitled "Is the Rastelli Procedure Falsely Maligned?"

Sawasta Deb was awarded the 2015 Platinum Claire Bombardier Award for the Most Promising Future Clinician Scientist from IHPME under the mentorship of Steve Fremes

Myunghyun (Mike) Lee under the mentorship of Terry Yau was accepted into the Surgeon Scientist training Program for his work examining miRNA-17 cluster activity and gene expression in aortic disease.

Laura-Eve Mantella, a MSc candidate under the mentorship of Subodh Verma, was awarded a Canada Graduate Scholarship (Master's Program)

Azza Ramadan, a PhD candidate under the mentorship of Subodh Verma, was awarded an Ontario Graduate Scholarship.

Rachel Vanderlaan under the mentorship of Christopher Caldarone was awarded a PSI Resident Grant for her study of myofilament mechanics in hypertrophic cardiomyopathy. She was also received the prestigious Banting Postdoctoral Fellowship award from the CIHR.

Jonathan W Yau, under the mentorship of Subodh Verma, has been awarded a CIHR Fellowship and won the 2015 International Society on Thrombosis and Haemostasis Young Investigator Award. Jonathan has also been named as a finalist for the 2015 American Heart Association Vivien Thomas Young Investigator

#### Faculty Honours/Awards/Positions Held

Christopher Caldarone is the Associate Editor for the Journal of Thoracic and Cardiovascular Surgery

Stephen Fremes was recognized with the Charles Tator Mentorship Award in 2015.

Maral Ouzounian received First Place in the Moderated Poster Competition at the AATS entitled "David vs. Goliath: Valve-sparing root replacement improves outcomes compared to Bentall procedures in patients with aortic root dilatation".

Krishna Singh was appointed as a research scientist and Assistant Professor.

Subodh Verma was inducted into the College of New Scholars at the Royal Society of Canada.

Richard Weisel is the Editor-in-Chief for the Journal of Thoracic and Cardiovascular Surgery

#### **Visiting Professors**

Robert S. Bell, Deputy Minister, Ministry of Health and Long-Term Care presented the 2014 Bigelow Lecture entitled "From the perspective of Surgeon, CEO and Deputy Minister, How should we manage public reporting of outcomes?" on October 3, 2014

Deepak L Bhatt, from the Brigham and Women's Hospital, Harvard Medical School, delivered joint St Michael's Hospital Cardiac Surgery - Heart and Stroke/Richard Lewar Centre of Excellence rounds on the topic "Innovative Agents. Transformative Trials. Healthier Hearts." Ross D Feldman, from the Memorial University of Newfoundland, delivered the Fall 2015 Asha Verma Memorial Lecture entitled "Heart Disease in Women: You've come a long way...?"

David A Hess, from the Robarts Research Institute of Western University, delivered the Winter

2015 Asha Verma Memorial Lecture entitled "Angiogenesis -Bench to Bedside and Implications for peripheral artery disease"

Neelam Khaper, from the Northern Ontario School of Medicine, Lakehead University, delivered joint St Michael's Hospital Cardiac and Vascular Surgery rounds on the topic "The antiproliferative role of metformin"

Douglas Zipes, from the Krannert Institute of Cardiology at Indiana University School of Medicine, delivered the 2015 Landmark Lecture on "Birth and maturation of cardiac electrophysiology as a speciality"

#### **Leadership Changes/Progressions**

Stephanie Brister retired from the Division of Cardiac Surgery at UHN.

Chris Caldarone was appointed Surgeon-in-Chief and Chief of Perioperative Services at SickKids.

Gideon Cohen stepped down as the Division of Cardiac Surgery Residency Program Director after five years of exemplary service. He was appointed Chair of the Endocarditis Working Group as well as Co-Chair of the ECLS Working Group both at Sunnybrook Health Sciences Centre.

**RJ** Cusimano was appointed as the interim Program Director for the Division of Cardiac Surgery.

Lee Errett retired from the Division of Cardiac Surgery at St Michael's Hospital.

#### Other highlights

John Coles' work was published in Nature Communications.

Chris Feindel serves in key administrative roles including as the Provincial Chair of Cardiac Surgery for the Cardiovascular Care Network.

**Ed Hickey** presented novel patient care data at the plenary session of the American Association for Thoracic Surgery using NASA concepts of threat and error. This "flight plan" approach to each patient's care has captured the interest of a number of major centers.

The adult congenital surgeons, under the direction of **Edward Hickey**, have successfully launched an innovative program to provide long-term mechanical circulatory support to patients with complex congenital heart disease.

Osami Honjo had his clinical outcomes research presented at nearly all the significant societal meetings in the past year.

Maral Ouzounian has solidified a multidisciplinary team to provide surgical management for thoracic aortic disease.

Vivek Rao continues to serve as the director of the Trillium Gift of Life Network.

**Hugh Scully** serves as a Canadian representative on the Board of Governors for the American College of Surgeons.

Glen Van Arsdell, in partnership with the McMaster Population Health Research Institute, initiated an international, prospective, 15-20 site, 3000 patient study on tetralogy of Fallot. This is the first congenital cardiac surgical study of that scope.

Subodh Verma together with Muhammad Mamdani of the Applied Health Research Centre at St Michael's Hospital launched the CARDIOLINK platform of clinical trials across five pillars. These include randomized control trials in five distinct areas. Aneurysm surgery (ACE trial of antegrade cerebral protection strategies), Valvular surgery (CAMARA-1 trial of different approaches to repair mitral valves); Atrial fibrillation (SEARCH-AF trial, evaluating novel ways to detect postoperative atrial fibrillation); peripheral artery disease (EXTINGHUISH - evaluating colchicine in secondary prevention in PAD) and innovative community based interventions (ENABL-NP Nurse practioner based approach to reduce hospitilizations following cardiovascular surgery). The SEARCH AF trial is funded at \$600,000 from Industry.

#### Dr. Rutka in Ukraine 2014







Division of General Surgery Carol Swallow, Chair

# SUMMARY OF ACTIVITIES FOR THE DIVISION 2014-2015

#### **PROMOTIONS**

Assistant to Associate Sean Cleary Manuel Gomez Erin Kennedy Tom Harmantas

Associate to Full Professor Calvin Law

#### **NEW APPOINTMENTS**

Shady Ashamalla - Interim Division Head, Sunnybrook Health Sciences Centre

Natalie Coburn - Chairholder of the Hanna Family Chair in Surgical Oncology Research

Julie Hendrick-Hallet – Faculty Member, Sunnybrook Health Sciences Centre

Adena Scheer - Faculty Member, St. Michael's Hospital

Eran Shlomovitz - Faculty Member, Toronto General Hospital

David Wasserstein - Faculty Member, Sunnybrook Health Sciences Centre

**CARS** (Continuing Appointment Review)

Anand Govindarajan - surgical oncologist, Mount Sinai Hospital and Princess Margaret Hospital

#### **AWARDS**

John Hagen - Mentor of the Year Award, Region 3 from the Royal College of Physicians and Surgeons of Canada.

Timothy Jackson - David Fear Fellowship Award, University of Toronto Faculty of Medicine.

Shiva Jayaraman (SJHC) - Special Commendation – Integrated Medical Education Awards for Excellence in Community-Based Teaching.

**Paul Karanicolas** - Roscoe Reid Graham Scholarship in Surgical Science from the Department of Surgery.

Bernard Langer - inducted into the Canadian Medical Hall of Fame.

Agostino Pierro - appointed by Her Majesty the Queen as an Honorary Officer of the Most Excellent Order of the British Empire (OBE).

Agostino Pierro - ICCO (Italian Chamber of Commerce of Ontario) Arts, Science and Culture Award.

Andy Smith - inducted into the American Surgical Association.

Lloyd Smith (NYGH) - Special Commendation for Excellence in Community-Based Teaching (Community Hospital setting).

Peter Stotland (NYGH) - Robert Mustard Mentorship Award, U of T.

Homer Tien - Department of Surgery Undergraduate Teaching Award, Sunnybrook Health Sciences Centre

David Urbach and Nancy Baxter - 2014-15 CIHR-IHSPR Article of the Year Award.

#### **GRANTS**

James Byrne - CIHR MSc Scholarship, "Impact of Pre-hospital Care and EMS Performance on Trauma Patient Mortality and Trauma Center Outcome Measures".

Sean Cleary - co-investigator on a 5 year grant from NIH on a genome-wide association study (GWAS) in hepatocellular carcinoma.

Sandra de Montbrun - 1 year grant - Royal College of Physicians and Surgeons of Canada. "Development and Evaluation of an Objective Assessment of Technical Skill for Graduating General Surgery Residents".

**Karen Devon** - Gold Foundation, "Transformative Learning Impact of Surgical Ethics Quality of Care Rounds".

**Teodor Grantcharov** - Tier 2 Canada Research Chair in Simulation and Surgical Safety.

Paul Karanicolas - PSI grant to support multicenter randomized trial examining the impact of tranexamic acid on bleeding during liver resection

#### IN MEMORIAM

Sigmund H. Ein passed away on Sunday, January 25, 2015. Dr. Ein began his career at SickKids on July 1, 1969 in the Division of General Surgery where he remained until his retirement in 2004.



# Division of Neurosurgery Andres Lozano, Chair

The Division of Neurosurgery maintained its high standard of excellence in the academic, research, clinical and teaching domains in 2014-15. Our 64 Faculty and residents performed over 6,300 cases and published over 330 papers. Our Faculty received numerous prestigious awards at the junior and senior levels. Our residents enjoyed a banner year for scholarships and awards. We remain grateful to the Dan Family for their generous and longstanding support that has enabled our Division to become the most academically productive Neurosurgery Division worldwide.

**Promotions**. Abhaya Kulkarni was promoted to Full Professor, and Gelareh Zadeh and Taufik Valiante were promoted to Associate Professor, effective July 1, 2014.

**New Chairs.** Gelareh Zadeh was appointed as the Wilkins Family Chair in Neurosurgical Brain Tumour Research, the 15th endowed chair in our Division.

**Research Grants.** Our neurosurgeons and Division-affiliated neuroscientists held over \$42.3M in total grant funding, including 17 newly awarded research grants.

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

- Ryan Alkins (PGY6), Teresa Purzner (PGY4) and Deep Guha (PGY3) won the 2015 K.G.McKenzie Prizes in Clinical Neuroscience Research.
- Vivek Bodani (PGY4) received a 2014 Canada Graduate Scholarships-Master's from the CIHR.
- Deep Guha (PGY3) was awarded an NSERC Alexander G. Bell Canada Graduate Scholarship-Master's.
- George Ibrahim (PGY5) was awarded the Governor General's Gold Medal and CIHR Brain Star Award.
- Nir Lipsman (PGY5) was awarded the 2014 CSCI/CIHR Resident Research Prize.
- Alireza Mansouri (PGY4) received a 2015 PARO Trust Resident Teaching Award.
- Anick Nater (PGY4) was awarded a Queen Elizabeth II/William Kerr Scholarship in Science and Technology.
- Teresa Purzner (PGY4) was awarded a 2014 NREF Fellowship and named a Stanford SPARK Scholar.

#### Faculty Honours/Awards/Positions Held

- Bernie Schacter, Professor Emeritus, Division of Neurosurgery, received the 2015 Meritorious Member Award from the AANS & CNS Section on Disorders of the Spine and Peripheral Nerves.
- R.S. McLaughlin Chair of Surgery James Rutka won the Canadian Cancer Society 2015 Robert L. Noble Prize.
- Charles Tator was awarded the 2014 Medal of Honour from the Canada's Research-Based Pharmaceutical Companies (Rx&D) Health Research Foundation.
- Andres Lozano was named to the rank of University Professor, the highest and most prestigious rank at the University of Toronto, effective July 1, 2014.
- Gelareh Zadeh received the 2015 American Brain Tumor Asso-

ciation Young Investigator Award.

- Mohammed F. Shamji was awarded the CNS Ronald R. Tasker Young Investigator Award
- -Michael Taylor received the 2015 William E. Rawls Prize from the Canadian Cancer Society.
- Gelareh Zadeh received the Ross Fleming Surgical Educator Award from the University of Toronto.

#### Visiting Professors

- Ole Kiehn, Karolinska Institute, 13th Annual Charles H. Tator-Barbara Turnbull Lectureship Series in Spinal Cord Injury, November 7, 2014.
- Hughes Duffau, Montpellier University Medical Center, 32nd Annual E. Harry Botterell Visiting Lectureship in Neurosurgery. November 11, 2014.
- Fady T. Charbel, University of Illinois at Chicago, 50th Lougheed Microsurgical Course. April 27-May 1st, 2015.
- Fady T. Charbel, University of Illinois at Chicago, City-Wide Rounds. May 1, 2015.
- Mark Souweidane, Vice Chairman, Department of Neurological Surgery, Weill Cornell Medical College, Bruce E. Hendrick Lectureship. May 22, 2015.
- Luca Regli, Director, Department of Neurosurgery, University Hospital, Zurich, Switzerland, 40th William S. Keith Visiting Professor. June 4, 2015.

#### **Division Firsts**

- -The 1st Annual Alan and Susan Hudson Lectureship, organized by Dr. Fred Gentili, took place on April 24, 2015. The inaugural lecturer was Dr. Hudson, past President and CEO of the University Health Network, whose talk was entitled "My life and career - lessons learned".
- Our Division ranked first in terms of number of publications, citations and institutional h-index among neurosurgery programs in North American. J Neurosurg. 2015 Sep;123(3):561-70.

**Leadership Changes/Progressions.** Julian Spears was selected as the interim Division Head of Neurosurgery at St. Michael's Hospital.

**Royal College Fellowships.** The following PGY6 residents successfully passed their FRCSC fellowship examinations: Ryan Alkins, Sumit Jhas, Osaama Khan, Safraz Mohammed, Shobhan Vachhrajani and Jefferson Wilson.

We can reflect on the past academic year with strong sense of accomplishment. We have been enriched by our 5 new residents and 25 clinical fellows from around the world. We pause to remember the passing of Affiliated Neuroscientist Dr. Maureen Dennis. We are on a strong course to maintain our leadership position globally in research and training. I thank each of our Faculty, fellows and residents for their tremendous dedication and contributions that have made Toronto Neurosurgery a topranked program worldwide.



## Division of Orthopaedic Surgery

Peter Ferguson, Albert and Temmy Latner Chair

2014/15 Academic Year was a time of transition, reflection and introspection. I had an opportunity to meet with many of the faculty to chart the course of the next 5 years. Several themes emerged that will serve as a template for priorities going forward. These include reinventing our brand, mentorship, recognition and promotion of our best and brightest trainees, fostering inter-institutional and interdisciplinary research, extension of our innovative education programs and establishing linkages with alumni.

We appointed new Residency Program Administration including Dr. Markku Nousiainen as Program Director and Drs. Veronica Wadey and Jeremy Hall as Associate Program Directors. They oversaw an incredibly successful internal review and then Royal College External Review that resulted in full accreditation status of the program. This is an incredible achievement as we complete the second year of our entirely Competency Based Curriculum. At this time all 9 of our pilot stream residents who have taken their Royal College Exam have successfully passed. Our program is to serve as a model for other programs across Canada and North America.

Dr. Albert Yee was named Vice Chair Research and he oversaw a successful research day, along with establishment of a research mentorship program for junior faculty. Dr. Yee's significant experience in translational and clinical research will lead us forward as we strive to establish inter-institutional initiatives across the Division.

Our clinical programs continue to thrive and our members deliver high quality care for straightforward and complex orthopaedic conditions. In particular, the sports program underwent a successful external review. We have had several promotions and new appointments. Overall the future of the Division is bright.

As part of our initiative to develop broader integrated clinical programs, we are starting to organize some aspects of education, research, and clinical care along specialties rather than sites. Albert Yee (Sunnybrook) along with Michael Fehlings (Neurosurgery – TWH) as co-director of the U of T Spine Program, continues to do a fabulous job working to integrate spine care, education and research across orthopaedics but also between orthopaedics, neurosurgery and other disciplines treating the spine. The annual Spinefest is a great example of such academic integration. The Sports program underwent an external review this year by Dr. Ned Amendola and the feedback was resoundingly positive. Darrell Ogilvie Harris continues to do an excellent job developing this integrated program at Women's College Hospital.

Our research initiatives are now headed by Albert Yee, Vice Chair of Research. Albert has taken bold steps toward increasing the integration of research across our division, fostering inter-institutional projects such as those headed by Aaron Nauth and Sevan Hopyan who received our inaugural divisional research grants last year. Our research boot camp for PGY-1 and PGY-2 residents helps develop impactful projects for our residents and the success is borne out in the presentations at research day and graduation day. Our academic footprint is a measure of how we impact orthopaedics internationally. It is a measure of the impact of our publications, the number of our trainees who have develop successful academic careers outside of Toronto, and how our work improves the outcome for the patients we treat. We continue to have one of the world's largest academic footprints, and this accomplishment is in no small part due to our strong focus of research.

Our efforts in innovative educational methods are well known. Our Competency Based Curriculum completed its 6th year and the second year involving the entire cohort of PGY-1 residents. This training curriculum is now becoming the new standard for resident education in Canada and in North America and many training programs worldwide are mirroring our design. Markku Nousiainen as Program Director and Veronica Wadey and Jeremy Hall as Associate Program Directors deserve a tremendous amount of credit for their efforts, especially in view of the successful Royal College External Review. Our incredibly successful University-wide fellowship program is now headed by Lucas Murnaghan.

University Wide Rounds for the academic year were given by Mark Camp (Toronto), Femi Ayeni (Hamilton), Thomas Willett (Toronto), Bradley Nelson (Minnesota) and Jesse Jupiter (Boston). We had the fourth Stefanski lecture for teaching better communication to orthopaedists. Gary Furlong was our lecturer. He gave his perspective from a mediators point of view on the importance of communication entitled "Communication that Builds Trust".

At our annual research day held in November, Graham King provided an excellent presentation highlighting how orthopaedic research can be harnessed to develop new technologies that positively impact our patients. He also provided valued mentoring to both our trainees and faculty alike including pearls on academic practice and work-life balance. The Robin Sullivan Award for best resident research project went to Kim Tsoi while the best paper by non-surgeon scientist resident went to Jerry Xing and the best paper by a non-resident went to Tarik Attia.

Our Graduation Day Visiting Professor was Kelly Vince from New Zealand. He gave a fabulous and very insightful "The Current State of Revision Knee Arthroplasty" 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, was a tie between Vehniah Tjong and Nick Bayley, and the Meisami award for most compassionate resident, as selected by the faculty, went to Vehniah Tjong and Caroline Scott. Lawson Awards went to Brian Seeto (PGY 5), Caroline Scott (PGY 4) David Burns (PGY 3) and Michael Olsen (PGY 2) and Justin Chang (PGY 1). The R.I. Harris awards for the best research presentations at the Graduation Day went to Bheeshma Ravi and Tim Leroux and the award for the best debate went to Raaj Vora and Brian Seeto. The James Waddell award for the best PGY 4 resident was awarded to Jesse Wolfstadt. Diane Nam received the Divisional Award for Best Teacher as selected by the residents. Dennis Dipasquale received the inaugural award as best Undergraduate Teacher in the Divison.

We welcomed 4 new faculty members this academic year – Martin Gargan, Mark Camp, David Wasserstein and Patrick Henry. Martin was recruited from the UK to be the new Chief of Orthopaedics at the Hospital for Sick Children and has a clinical focus on pediatric hip surgery. Mark is one of our former graduates and was recruited to the Hospital for Sick Children. He has an interest in neuromuscular disorders in children and surgical ethics. David is another of our former residents who has been recruited to Sunnybrook. His area of interest is sports injuries of the lower extremity and trauma and has an academic interest in clinical epidemiology. Finally Patrick has been recruited to Sunnybrook with

an academic interest in sports injuries of the upper extremity and trauma and has an academic focus on clinical epidemiology. We are looking forward to great contributions from Martin, Mark, David and Patrick over the next several years.

We have a total of 6 faculty members who are being promoted as of July 1, 2015. Rajiv Gandhi, Amr Elmaraghy, Sevan Hopyan and Oleg Safir are being promoted to the level of Associate Professor and Andrew Howard and Tom Daniels are being promoted to the level of Full Professor. This is the ultimate academic achievement at the University and is a measure of the outstanding contributions that each have made to orthopaedics. Congratulations to all – this is the largest number of promotees in the Division in recent memory!

There were several awards bestowed upon our faculty members. Rajiv Gandhi was a 2015 ABC Travelling Fellow. Tim Daniels received the Takkura and Roger Mann Awards at the 2014 AO-FAS meetings – both prestigious awards that he has won multiple times. Frank Mastrogiacomo and Bill Kraemer both received Special Commendation – Integrated Medical Education Award for Excellence in Community Based Teaching from the PGME. Peter Ferguson received the 2015 RCPSC/AMS Donald Richards Wilson Award for incorporation of the CanMEDs roles into a residency program. Simon Kelley won a McMurrich Prize at Gallie Day as well as the Laidlaw Prize from the Institute of Medical Science Annual Research Day. Jeremy Hall received the 2015 Surgical Skills Centre Distinguished Educator Award. Finally, Emil Schemitsch received the Lister Prize, which is the highest honour in the entire Department of Surgery.

James Rofaiel PGY-3 was awarded the Sopman Humanitarian award at TWH/UHN. Marissa Bonyun PGY-1 received a 2015 Esther and Saul Baker Award. This award is given by the Division of Geriatrics and Marissa was selected as the top off-service resident who has rotated through the service in this academic year.

Ryan Katchky, James Rofaiel and Robert Ravinsky all received 2015 AOFAS Scholarships. Michael MacKechnie received a Canadian Orthopaedic Foundation Bones and Phones Scholarship for his role in the Development of a contextually appropriate orthopedic surgery training program in Botswana.

At our recent 6th Annual Fellowship Day, Jeremie Larouche, Shahram Shahrokhi and Michael Dodds were awarded prizes for the best fellow research projects. Jeremie Larouche, Kevin Koo and Sagar Desai were named the best fellow teachers as voted by the residents. Finally, the arthroplasty group at Mount Sinai Hospital comprised of Allan Gross, David Backstein, Oleg Safir and Paul Kuzyk received the inaugural award for excellence in education in a fellowship program. We anticipate that all of our fellows take their great experiences in Toronto with them in their upcoming career endeavours.

All of our trainees were successful on their recent FRCSC exams. Congratulations to Nick Bayley, Luke Bristow, Andrew Dold, Amir Khoshbin, Tim Leroux, Ian Mayne, Bheeshma Ravi, Caroline Scott, Brian Seeto, Vehniah Tjong, Matthew Tsuji, Dmitry Tsvetkov, Raaj Vora and Jerry Xing. 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.

Finally, we welcome a fresh group of trainees to our program July 1st. These highly accomplished individuals are the future of our specialty. A warm welcome to Tan Chen, William Chu Kwan, Meghan Crookshank, Jenna Durham, Hilary Felice, Zachary Lim, Ryan Perlus, Jay Toor and Ian Whatley. We all look forward to working with you over the next 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 Langer Canadian Medical Hall of Fame



#### IDEAS Program Graduates



#### Meagan's Walk with Mayor John Tory



Research Retreat January 2015





# 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 49 surgeons, 3 senior scientists, 25 residents and 20 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:**

Manuel Dibildox - After four years as a staff surgeon at the Ross Tilley Burn Centre, Dr. Manuel Dibildox will be leaving to pursue residency training in plastic and reconstructive surgery at the Mayo Clinic. The RTBC wishes Manuel all the best in his upcoming training and future career plans.

#### Recruitment:

Karen Cross was recruited as an Assistant Professor as well as Surgeon Scientist in the Division of Plastic and Reconstructive Surgery, University of Toronto and began her staff appointment at St. Michael's Hospital on July 1, 2015. Karen is also an adjunct professor at Ryerson University and her lab is scheduled to open on Sept. 15, 2015.

Alan Rogers The RTBC has successfully recruited Dr. Alan Rogers as Assistant Professor to fill the vacancy of Dr. Dibildox. Dr. Rogers is a Plastic Surgeon from Capetown, South Africa, who previously trained in Plastic Surgery at East Grinstead in the UK, and he has just completed a one year fellowship in total burn care at the RTBC. Dr. Rogers is the Vice President of the South African Burn Society, and he has been instrumental in efforts to establish the first ever skin bank in his native South Africa. Dr. Rogers began his appointment on July 1, 2015.

Kristen Davidge was recruited as an Assistant Professor as well as Surgeon Scientist in the Division of Plastic and Reconstructive Surgery, University of Toronto and began her staff appointment at the Hospital for Sick Children on July 1, 2015.

#### **Promotions**

Frank Lista (Trillium Health Partners) was promoted to Assistant Professor

Shahriar Shahrokhi (Sunnybrook Health Sciences Centre) was promoted to Assistant Professor

Michael Weinberg (Trillium Health Partners) was promoted to Assistant Professor

#### **Faculty and Resident Grants**

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).

Dimitri Anastakis, Karen Davis, JD Katz: Pre-existing patient factors associated with sensorimotor recovery, chronic pain, and brain plasticity following surgical repair of peripheral nerve injuries. Workers Safety and Insurance Board, Research Advisory Counsel.

Total Amount: 348,273 CAD. 2014 Jul - 2015 Jun: 65,889 CAD (prorated).

Oleh Antonyshyn: ICIGT-OCE Industry Academic Collaborative Project. Ontario Centres of Excellence. PI: Antonyshyn, Oleh. Collaborators: Mainprize, J., Edwards, G. [Grants]. Total Amount: 100,000 CAD. 2014 Jul - 2015 Jun: 16,000 CAD (prorated). Custom Craniofacial Implant System.

Oleh Antonyshyn: Custom Craniofacial Implant System. FedDev ICP – Investing in Commercialization Partnerships, FedDev ICP – Investing in Commercialization Partnerships. PI: Antonyshyn O. Collaborators: Edwards Glenn, Mainprize James. [Grants]. Total Amount: 120,000 CAD. 2014 Jul - 2015 Jun: 40,000 CAD (prorated).

Oleh Antonyshyn: 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. PI: Waler K. Collaborators: Antonyshyn O, Hetmanchuk V. [Contracts]. Total Amount: 1,200,000 CAD. 2014 Jul - 2015 Jun: 120,000 CAD (prorated). Support of development and implementation of education and infrastructure for: 1) Primary Trauma Care / Damage control Surgery 2) Craniofacial and upper extremity trauma reconstruction.

Oleh Antonyshyn: Surgical Instrument and Implant Support, Kyiv Ukraine Humanitarian Surgical Mission, May 2015. Stryker Canada. PI: Antonyshyn O. [Industrial Grants]. Total Amount: 160,000 CAD. 2014 Jul - 2015 Jun: 160,000 CAD (prorated). Provision of all surgical power tools, instruments and fixation devices for craniomaxillofacial reconstructive surgery.

Oleh Antonyshyn: Surgical Instrument and Implant Support, Kyiv Ukraine Humanitarian Surgical Mission, Nov 2014. Stryker Canada. PI: Antonyshyn O. [Industrial Grants]. Total Amount: 132,000 CAD. 2014 Jul - 2015 Jun: 81,231 CAD (prorated). Provision of all surgical power tools, instruments and fixation devices for craniomaxillofacial reconstructive surgery.

Oleh Antonyshyn: Comparative impact resistance of titanium mesh, polymethyl methacrylate (PMMA), and polyether ether ketone (PEEK) in an in vitro model of custom patient specific cranioplasty. AO Foundation, AO Foundation. PI: Antonyshyn, Oleh. Collaborators: Sunderland I, Antonyshyn O, Mainprize J, Edwards G, Whyne C. [Grants]. Total Amount: 53,900 CAD. 2014 Jul - 2015 Jun: 35,933 CAD (prorated).

Katie Armstrong, Steve McCabe, Toni Zhong, Herb Von Schroeder, Nancy Baxter: Distal radius fracture care in the province of Ontario: factors impacting management: Awarded \$18,500 by PSI

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", PI: K Armstrong. Canadian Institute of Health Research Institute Community Support Travel Grant. \$1500: 2015.

Katie Armstrong, Presenter, "Quality of Recovery in Women Undergoing Autogenous Breast Reconstruction in an Ambulatory Setting". SGS Conference Grant. \$800: 2014.

Katie Armstrong, Co-Investigator, Master's thesis, "Replacing ambulatory clinic follow-up with remote home monitoring using smartphones in breast reconstruction patients: Is it cost-effective?", PI: JL Semple & RS Bhatia with K Armstrong & P Coyte. Canadian Institute of Health Research, \$39,903: 2014-2015.

Greg Borschel: 2015 Mar - 2015 Sep. Principal Investigator. School of Graduate Studies Conference Grant. School of Graduate Studies - Universtiy 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).2015 Jul - 2016 Jun: 291 CAD (prorated).

Greg Borschel: 2014 May - 2014 Aug. Kasra Tajdaran.Principal Investigator. Use of a tissue engineered nerve graft to improve nerve regeneration. Comprehensive Research Experience for Medical Students (CREMS), Summer Program 2014, n/a. Collaborators: Gordon, Tessa (co-supervisor). [Research Fellowships].Total Amount: 2,750 CAD.2013 Jul - 2014 Jun: 1,375 CAD (prorated).2014 Jul - 2015 Jun: 1,375 CAD (prorated).

Greg Borschel: Mr. David Scholl, U of T medical student}2014 May - 2014 Aug. Principal Investigator. Use of a tissue engineered nerve graft to improve nerve regeneration. Comprehensive Research Experience for Medical Students (CREMS), Summer Program 2014, n/a. Collaborators: Gordon, Tessa (co-supervisor). [Research Fellowships].Total Amount: 2,750 CAD.2013 Jul - 2014 Jun: 1,375 CAD (prorated). 2014 Jul - 2015 Jun: 1,375 CAD (prorated).

Greg Borschel: Mr. David Scholl, U of T medical student} 2013 Jul - 2015 Jun Principal Investigator. Evaluation of the novel aminopropyl carbazole in nerve regeneration. RestraComp, Postdoctoral fellowship funding program. Collaborators: Catapano, Joseph. [Grants].Total Amount: 80,000 CAD.2013 Jul - 2014 Jun: 40,000 CAD (prorated).2014 Jul - 2015 Jun: 40,000 CAD (prorated).Total Amount Attributed to Faculty Member: 80,000 CAD.P7C3 and its analogs will be tested in neonatal and adult models of peripheral nerve injury to determine efficacy and dose response relationships.

Greg Borschel: 2013 Apr - 2016 Apr Principal Investigator. Enhancement of nerve regeneration with controlled release of neurotrophic factors. Canadian Institues 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.

Greg Borschel: 2012 Sep - 2014 Aug Principal Investigator. Enhancing outcomes following nerve injury using combined electrical stimulation and nerve bridges to the chronically denervated stump. RestraComp, Postdoctoral fellowship funding program. Collaborators: Michael Hendry. [Grants].Total Amount: 80,000 CAD.2013 Jul - 2014 Jun: 40,000 CAD (prorated).2014 Jul - 2015 Jun: 6,667 CAD (prorated).Total Amount Attributed to Faculty Member: 80,000 CAD.

Greg Borschel: 2012 Jul - 2015 Jul Principal Applicant. Early Researcher Award: Enhancing Recovery Following Nerve Injury. Ontario Ministry of Research and Innovation, Early Researcher Award Round 8. PI: Borschel, Gregory H. Collaborators: Gordon, Tessa. [Grants].Total Amount: 150,000 CAD.2013 Jul - 2014 Jun: 48,649 CAD (prorated).2014 Jul - 2015 Jun: 48,649 CAD (prorated).2015 Jul - 2016 Jun: 4,054 CAD (prorated).

Greg Borschel: 2011 Jun - 2014 Jul Principal Investigator. Improving functional recovery after peripheral nerve injury. Canadian Institute for Health Research (CIHR), Operating Grant. Collaborators: Gordon, Tessa. [Grants].Total Amount: 290,996 CAD.2013 Jul - 2014 Jun: 91,893 CAD (prorated).2014 Jul - 2015 Jun: 7,658 CAD (prorated).

Greg Borschel: 2014 Jul - 2016 Jul Clinician Investigator Program, Trainee Name: Daniel Demsey, The University of British Columbia, Victoria, British Columbia, Canada. Specialty: Plastic and Reconstructive Surgery.Total Amount: 60,702.95 CAD.

E. Grober, K. Jarvi, Mitchell Brown, John Semple: Development and Validation of a Competency-Based Program of Education and Assessment of the Fundamentals of Micro Surgery (FMS). WCHAMSG Alternate Funding Plan Innovation Fund. (\$13,850.28 2015.)

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

Marc Jeschke: 2015 Jan - 2019 Dec Co-Investigator. Effects of chronic catecholamine exposure on post-burn scarring. NIH (GM112936). PI: Finery, Celeste. 5-year NIH R01 Grant - \$382,570 USD per year.

Leila Kasrai: UN Foundation: Assessing barriers to prevent burns caused by floor level cookstoves in an urban slum in Nairobi, \$35,000 (2014)

James Mahoney, Karen Cross: Will the How2trak wound outcome measurement system provide the patient documentation required for an academic wound care program? Innovation Fund \$4426.26 (2014-2015).

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.

Christine Novak, Steve McCabe and Jamil Ahmad: Botulinum Toxin Type A for Cold Sensitivity after Hand Trauma. Funded \$9980 USD (October 1, 2014 – September 30, 2015) from the Plastic Surgery Foundation

Jennica Platt: 2014 Plastic Surgery Foundation – Pilot Research Grant (\$10,000 x 12 months). Title: "Nipple Delay Prior to Nipple Sparing Mastectomy: A Pilot RCT"

Dale Podolsky and co-investigators David M Fisher, Karen W Wong, Thomas Looi, James M Drake, Christopher R Forrest: Combined Pilot Research Grant valued at \$10,000 for "Development of a robotic approach to cleft palate repair." (2014-2015)

John Semple, Johnston M: Impact of Radiation Therapy on the Lymphatic Circulatory System: Relevance to Breast Cancer Related Lymphedema. Canadian Breast Cancer Foundation – Ontario Region Chapter. (\$430,631 2011 - 2014.)

John Semple, Mitchell Brown, P. Morgan, Kristen Davidge: Implementation of 23hr length of stay for breast reconstruction surgery: Quality of recovery evaluation following discharge. WCH Innovation AFP. (\$29,841 2011 - 2012.)

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

Laura Snell, Joan Lipa, Glykeria Martou: Canadian Society of Plastic Surgeons – Clinical Research Outcome Grant – titled: A novel interactive educational module for plastic surgery trainees: a randomized controlled trial. \$10,000 (2014-2015)

Laura Snell, Joan Lipa, Anita Long, Paul Binhammer: Sunnybrook Education Advisory Committee – Annual Education Grant: The potential role for simulated training in the identification and management of a compromised free flap: an interdisciplinary needs assessment. \$10,000 (2014-2015)

Toni Zhong, Nancy Baxter, Stefan Hofer, Mitchell Brown, Brett Beber, John Semple: The use of human acellular dermal matrix in one-stage implant breast reconstruction: A multicenter, randomized, controlled trial". Canadian Breast Cancer Foundation - Ontario Region Research Project Grant Program Fall 2011. (\$368,449 2011 - 2014.)

Toni Zhong, Nancy Baxter, Brett Beber, Terry Cheng, Jeffrey Hoch, Stefan Hofer, Wanrudee Isaranuwatchai, Jennifer Jones, Kelly Metcalfe, Anne O'Neill, Tony Panzarella, and Jennica Platt: "Pre-consultation Educational Group Intervention to Improve Shared Decision Making for Postmastectomy Breast Reconstruction." Canadian Breast Cancer Foundation 3 year funding (\$352,785). 2014-2017.

Toni Zhong 2015 Jul – 2020 Jun Development of a National Quality Improvement Program in Postmastectomy Breast Reconstruction to Optimize Patient-Centred Experience. Canadian Institutes of Health Research (CIHR) Foundation Scheme Pilot Program Grant. Program leader: Dr. Toni Zhong, Program experts: Baxter, Nancy; Hofer, Stefan; Jones, Jennifer; Macadam, Sheina; Metcalfe, Kelly; Panzarella, Tony; Porter, Geoff; Pusic, Andrea; Roberts, Amanda; Semple, John; Temple-Oberle, Claire; Webster, Fiona; Wei, Alice, Program experts (Knowledge-user): DeCoteau, MJ (Rethink Breast Cancer); Witkin, Natalie (Willow Breast & Hereditary Cancer Support). Partners: Institute for Clinical Evaluative Sciences, Canadian Breast Cancer Foundation. \$860,006 CAD [Grants]

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

Toni Zhong 2015 Jul – 2020 Jun Establishing donor-specific transplantation tolerance by harnessing DN regulatory T cells. Canadian Institutes for Health Research. Transitional Operating Grant: 2014-2015. PI: Zhang, Li. Collaborator(s): Zhong, Toni, Zuniga-Pflucker, J. 924,035 CAD. [Grants]

Toni Zhong 2014 Sep – 2015 Aug Using a Novel Quality Metric Approach to Examine the Healthcare Utilization of Post-Mastectomy Breast Reconstruction: A Population-based Study. Physicians Services Inc. Foundation. Health Research Grant. PI: Roberts, Amanda. Collaborator(s): Baxter, Nancy. 74,000 CAD. [Grants]

Toni Zhong 2014 Jul – 2015 Jun Nipple Delay Prior to Nipple Sparing Mastectomy: A Pilot RCT. Plastic Surgery Educational Foundation. Pilot Research and PSRC Combined Pilot Research. 312846. PI: Platt, Jennica. Collaborator(s): Zhong, Toni, Hofer, Stefan OP, Cil, Tulin. 10,000 USD. [Grants]

Karen Wong: 2015 Co-Principal Investigator. Development of the FACE-Q Kids PRO Instrument. Plastic Surgery Foundation. PI: Klassen A, Wong KWY. Collaborator(s): Forrest CR, Pusic AL, Borschel G, Davidge KM, Zuker RM, Giglia L. 49,978. [Grants]

National Endowment for Plastic Surgery Grant 2015.

Karen Wong, Anne F. Klassen, Christopher Forrest, Gregory Borschel, Kirsten Davidge, Ronald Zuker and L. Giglia: Development of the FACE-Q Kids PRO Instrument. National Endowment for Plastic Surgery Grant 2015, Plastic Surgery Foundation. \$49,978 (2014-2015).

#### **Residents Honours/Awards/Positions Held**

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

Katie Armstrong 2015 Michael Decter 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 2014 Outstanding Paper Presentation, American Society of Plastic Surgery Annual Meeting, Chicago, Illinois.

Katie Armstrong 2014 Mentor Medical Systems Canada Graduate Scholarship, the Division of Plastic & Reconstructive Surgery, University of Toronto, Toronto, Ontario.

Katie Armstrong 2014 Student Paper Award, The American Telemedicine Association Annual Meeting, Baltimore, Maryland. Awarded to one student, based on the quality of their submitted paper and presentation to the ATA annual meeting where over 36 countries were represented.

Katie Armstrong 2014 Mentor Best Clinical Paper Award, Resident Research Day, University of Toronto, Toronto, Ontario.

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

Katie Armstrong Received the 2014 American Telemedicine Association Student Paper Award for her paper "Breast Reconstruction Follow-up Using QoC Mobile App: A Societal Economic Evaluation" with co-authors John Semple and Peter Coyte.

Ryan Austin: American Society for Surgery of the Hand Annual Meeting Traveling Scholarship 2014,

Ryan Austin: American Society for Aesthetic Plastic Surgery Resident Travel Scholarship 2015

Ryan Austin: Aesthetic Surgery Journal, Editorial Board, Member (Resident).

Joseph Catapano: 2015 Frederick Banting and Charles Best Doctoral Research Award, CIHR

Joseph Catapano: 2015 Resident Clinical Paper Award, Annual Meeting of the American Society of Peripheral Nerve

Joseph Catapano: 2014 Hilda and William Courtney Clayton Paediatric Research Fund, School of Graduate Studies, UofT

Joseph Catapano: 2014 Peterborough K.M. Hunter Graduate Scholarship, School of Graduate Studies, UofT

Joseph Catapano: 2014 Edward Christie Stevens Fellowship, PGME, University of Toronto

Joseph Catapano: 2014 Joseph M. West Memorial Fund, PGME, University of Toronto

Joseph Catapano: 2014 Jul – 2015 – Jul – American Society of Peripheral Nerve and Plastic Surgery Foundation. Combined Pilot Research Grant, "Enhancement of nerve regeneration following neonatal nerve injury". Awardee Name: Catapano, Joseph. American Society of Peripheral Nerve and Plastic Surgery Foundation, Toronto, Ontario, Canada. Amount \$9,930 CAD, 2014 Jul – 2015 Jul \$9,166.15 CAD. 2015 Jul – 2016 Jun: \$763.85 CAD.

Joseph Catapano: 2014 Jul – 2015 – Jul – Hilda and William Courtney Clayton Paediatric Research Fund, Student, Awardee Name: Joseph Catapano. The University of Toronot, Faculty of Medicine, Toronto, Ontario, Canada. (Specialty: Plastic and Reconstructive Surgery).

Total Amount: 4,100 CAD. 2014 Jul - 2015 Jun: 4,100 CAD. Graduate Awards Review Committee of the Faculty of Medicine monetary award.

Joseph Catapano: 2014 Jul – 2015 – Jul – Peterborough K. M. Hunter Graduate Studentships, Student, Awardee Name: Joseph Catapano. The University of Toronto, Faculty of Medicine, Toronto, Ontario, Canada. (Specialty: Plastic and Reconstructive Surgery). Total Amount: 10,000 CAD.2014 Jul - 2015 Jun: 10,000 CAD. Peterborough K. M. Hunter Graduate Studentships

Joseph Catapano: 2014 Jul – 2015 – Jul – Joseph M. West Family

Memorial Fund, Student, Awardee Name: Joseph Catapano. The University of Toronto, Faculty of Medicine, Toronto, Ontario, Canada. (Specialty: Plastic and Reconstructive Surgery). Total Amount: 2,637.5 CAD.

2014 Jul - 2015 Jun: 2,637.5 CAD.Postgraduate Awards Committee at the Faculty of Medicine monetary award.

Joseph Catapano: 2014 Jul – 2015 – Jul – SickKids Research Training Competition Funding (Restracomp), Awardee Name: Catapano, Joseph. The Hospital for Sick Children, Toronto, Ontario, Canada. (Specialty: Plastic and Reconstructive Surgery). Total Amount: 40,000 CAD.

Joseph Catapano: 2014 Jul – 2015 – Jul – Edward Christie Stevens Fellowship, Student, Awardee Name: Joseph Catapano. The University of Toronto, Faculty of Medicine, Toronto, Ontario, Canada. (Specialty: Plastic and Reconstructive Surgery). Total Amount: 4,000 CAD.

2014 Jul - 2015 Jun: 6,637.5 CAD. Postgraduate Awards Committee at the Faculty of Medicine monetary award.

Siba Haykal: 2014 Recipient of Women's Microsurgery Group ViOptix Travel Scholarship at the American Society of Reconstructive Microsurgery

Mike Hendry: Co-recipient of the of the Mentor Canada, Johnson and Johnson Medical Companies Prize for Best Clinical Paper Award 2015 for "Side-to-Side Nerve Bridges Provide Evidence of Axon-Medicated Schwann Cell Protection Within Chronically Denervated Nerves and Influence Denervated Schwann Cell Phenotype. Authors: Hendry JM, MC Alvarez-Veronesi, A. Snyder, T Gordon, G. Borschel. Supervisor: Gregory Borschel.

Rayisa Hontscharuk: Junior Resident Representative for the Residency Program Committee (2014-2015).

Rayisa Hontscharuk Participant in Surgical Mission to Ukraine (2014-2015)

Blake Murphy: Recipient of the Mentor Canada, Johnson and Johnson Medical Companies Prize for Best Clinical Paper Award 2015 for "Validating the ACS-NSQIP Risk Calculator in Allopastic Breast Reconstruction". Authors: Blake D Murphy, Shaghayegh Bagher, Marina Barrandun, Stefan O.P. Hofer, Toni Zhong, Anne C. O'Neill. Supervisor: Anne C. O'Neill.

Dale Podolsky: 2015 May Gallie-Bateman and McMurrich Resident Poster Research Competition, Awardee Name: Dr. Dale Podolsky

Dr. Dale Podolsky won first place for his poster presentation entitled Development of a robotic approach to cleft palate repair

David Sainsbury: W.K. Lindsay Research Prize, Division of Plastic & Reconstructive Surgery, Awardee Name: Sainsbury D, Fisher DM. 10th Annual Lindsay-Thomson Symposium in Pediatric Plastic Surgery, Toronto, Ontario, Canada

Dr. David Sainsbury was chosen for his presentation of "The role of intravelar veloplasty in the von Langenbeck Palatoplasty".

Jennica Platt: 2015 Best Basic Science Award – Annual Division of Plastic and Reconstructive Surgery Research Day

Jennica Platt: 08/2014 – present Resident representative, Surgical Foundations Committee, University of Toronto

Natalia Ziolkowski: Conference Poster acceptance. Evidence Based Plastic Surgery: Randomized Controlled Trials Comparing Surgical Interventions, A Systematic Review. Voineskos S, Coroneos CJ, Ziolkowski N, Kaur M, Banfield L, Busse J, Meade M, Thoma A, Bhandari M. AAPS 93rd Annual Meeting, Miami Beach, Florida, USA, April 5-8, 2014

Natalia Ziolkowski: Conference Poster acceptance Complications with forearm pediatric compartment syndrome Ziolkowski N, Zive L, Ho E, Zuker R. CSPS, 68th annual conference. Montreal, Canada. June 25-28, 2014

#### **Faculty Honours/Awards/Positions Held**

**Jamil Ahmad:** Appointed as Vice-Program Chair for American Society for Aesthetic Plastic Surgery (ASAPS). This is a 3-year appointment before taking over the position as Program Chair for another 3 years.

Jamil Ahmad: Section Editor for the Breast Section of the Aesthetic Surgery Journal.

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

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.

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.

2012 Jul 1 - 2015 Jun 30 Vice Dean. Continuing Professional Development, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada.

2011 May 1 - present Professor. Plastic and Reconstructive Surgery, Surgery, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada.

2014 Oct - present Chair, BOD Nominating Committee. SIMone, Ontario Simulation Network, Ontario, Canada.

2014 Sep - present Chair Board of Directors. SIM-one, Ontario Simulation Network, Toronto, Ontario, Canada.

2015 Mar - 2015 Jun 30 Co-Chair, Innovations in Education Advisory Committee, Multilevel Education, Innovations in Education, CPD, Faculty of Medicine, Toronto, Ontario, Canada. 2015 Jan 1 - 2015 Jun 30 Dean's Leadership Team, Toronto, Ontario, Canada.

2014 Jul 1 - 2015 Jun 30 Dean's Campaign Cabinet, Toronto, Ontario, Canada.

Dimitri Anastakis: Invited Speaker. 2015 Jun 8 Presenter. A Longitudinal Study of Pain, Personality and Plasticity Following Peripheral Nerve Injury. Sunderland Society, Ann Arbor, Michigan, United States. Presenter(s): R Goswani, D Anastakis, J Katz, K Davis. June 8 2015.

Dimitri Anastakis: Invited Speaker. How Nerve Injury Changes the CNS. American Society for Peripheral Nerve, Paradise Island, Bahamas. Presenter(s): DJ Anastakis and MJA Malessy. - Describe the CNS changes that occur following PNI

- Describe the CNS changes that occur in patients with PNI and chronic neurogenic pain
- List potential patient specific cofactors that may contribute to chronic neurogenic pain following PNI. Jan. 25, 2015

Dimitri Anastakis: Invited Speaker. CACME CPD Standards - Achieving Exemplary Compliance. CCME, Vancouver, British Columbia, Canada. Highlighted how UofT achieved Exemplary Compliance for Standard 4.4 April 25, 2015

Dimitri Anastakis: Invited Speaker. Building a Provincial Network for Health Professions Simulation - Lessons Learned. Department of Surgery & Division of Medical Education, Dalhousie University, Halifax, Nova Scotia, Canada. Nov 14, 2014

Dimitri Anastakis: Invited Speaker. The Continuum of Medical Education and the Role of Advancement. Faculty of Medicine, Office of Advancement, Toronto, Ontario, Canada. Presenter(s): DJ Anastakis. Overview of the continuum of medical education provided along with explanation of the critical role advancement plays in supporting the learner at UofT. Feb 25, 2015

Dimitri Anastakis: Keynote Speaker. Trends and the Future of Health Professions Education. Can we Change Fast Enough? 3rd Annual Sunnybrook Education Conference, Toronto, Ontario, Canada. Oct 17, 2014

Dimitri Anastakis: Presenter. Comparing Dynamic vs. Static Multimedia as Preparation for Complex Procedural Skills Learning. AAMC RIME Research in Medical Education, Chicago, Illinois, United States. Presenter(s): Ryan Brydges, Nancy Dudek, Wade Gofton, Faizal Haji, Aaron Knox, Matthew Lineberry, Laura Naismith, Ara Tekian, Timothy J. Wood. (Trainee Presentation) Nov 7, 2014.

Oleh Antonyshyn: Patent: Method of Forming Patient-Specific Implant. Granted, Filing Date: 2011 Jun. Patents #: 8,974,535, United States. Joint Holder Name(s): James Mainprize, Glenn Edwards. Methods and apparatus are provided for forming a patient-specific surgical implant based on mold system. The apparatus comprises a forming tool and a mold that may be generated using imaging and processing techniques and rapid prototyping methods. The mold apparatus includes at least two non-adjacent surface features for securing an implant forming material (such as a titanium mesh) during the forming process, enabling the implant forming material to be stretched beyond its elastic and thus permanently deformed with the correct patient-specific curvature. The implant may include one or more anatomic surface features for guidance and registration when transferring the implant to a patient, March 2015

Oleh Antonyshyn: 2015 May 10 - 2015 May 17 Professional Innovation and Creative Excellence. Canadian Humanitarian Surgical Mission Kyiv May 2015. Developed, organized, implemented and completed a humanitarian surgical mission comprising 22 Canadian volunteer health professionals. Team Leader Completed 53 craniofacial and upper extremity reconstructions Conducted a pilot Trauma Life Support course. 12 participants Participated in Annual Meeting of the Ukrainian Association of Craniomaxillofacial Surgeons. Confirmation of ongoing Canadian Humanitarian/Ukrainian collaborative management of war casualties Initiation of Educational program. CNN, BBC, Canada Ukraine Foundation Press Release

Oleh Antonyshyn: 2015 Jan 29 - 2015 Feb 2 Professional Innovation and Creative Excellence. Medical Mission to Kyiv: Surgical Needs assessment. Journey to Kyiv, Ukraine Meetings with the Minister of Defense, Minister of Health, Canadian Ambassador, Surgeons at the Main Kyiv Military Hospital Assessment of previous surgical mission impact and planning of further missions and educational efforts. Established plan for combined surgical mission, Trauma life support instruction, and Craniomaxillofacial surgery meeting. Documented through Canada Ukraine Foundation Press Release

Oleh Antonyshyn: 2014 Nov 6 - 2014 Nov 16 Professional Innovation and Creative Excellence. Canada Ukraine Foundation/Operation Rainbow Canada Surgical Mission Kyiv 2014. Initiated, developed, organized and implemented a humanitarian surgcal mission to Ukraine, comprising 25 Canadian volunteer medical professionas. Established 3 fully supported OR's at the Central Military Hospital in Kyiv to complete 37 craniofacial and upper extremity reconstructions. First Humanitarian Surgical Mission ever conducted In addition to completing over 50 consultations and 37 procedures, this was a major educational effort with intraoperative teaching of host country surgeons, residents, and students. Documented through CTV, CBC, BBC, CNN

Oleh Antonyshyn: 2014 Jul - 2015 Jun Marvin Tile Distinguished Service Award, Sunnybrook Health Sciences Centre, Department of Surgery, Toronto, Ontario, Canada. (Distinction). given to an individual who has contributed significantly in the areas of teaching, research and professional activity within the Department of Surgery.

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.

Consultant Staff. Plastic Surgery, 1992 - present

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 Toron-

to, Toronto, Ontario.

Member, Craniofacial Team, Depart-1992 - present

ment 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 Sympo-

sium Organizing Committee.

AO International

2009 Feb - present Board Member, Craniomaxilofacial

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

Reviewer, Tariff Committee, Ontario 2007 May - present

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.

Paul Binhammer: Awarded Arnis Freiberg Faculty Teaching Excellence Award 2015.

Greg Borschel: 2014 May ErbB2 Signaling and Nerve Regeneration, US Provisional Patent No. 61/987,692. Granted. Patents #: US Patent # 499-020-P, United States. Joint Holder Name(s): Borschel Gregory H.; Hendry, James M.

Greg Borschel: 2015 Mar 5 Invited Speaker. New Eye Surgery - Corneal Neurotization. Interviewer: Marci Ien. Canada AM. CTV, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H. Doctors at Toronto's Hospital for Sick Children have pioneered a new surgery that restores lost feeling in the eye. They have been able to successfully transfer a nerve from the patient's leg into the eye. It's a new approach to a medical problem that experts have been unable to solve for years. Abby Messner was the first person to have the new procedure in 2012.

Greg Borschel: 2015 Mar 5 Speaker. Restoring nerve sensations - Corneal Neurotization. CTV, CP24, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Zuker, Ronald; Ali, Asim. Doctors at Toronto's Hospital for Sick Children have pioneered a new surgery that restores lost feeling in the eye. They have been able to successfully transfer a nerve from the patient's leg into the eye. It's a new approach to a medical problem that experts have been unable to solve for years. Abby Messner was the first person to have the new procedure in 2012.

Total Hours: 1

Greg Borschel: 2015 Mar 5 Speaker. Eye Innovation - Corneal Neurotization. CBC The National, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Zuker, Ronald; Ali, Asim. Doctor's at Toronto's SickKids Hospital have carried out a world first. Doctors have pioneered a new surgery that restores lost sensation and can help prevent blindness...For 18 year old Abby Messner feeling is believing. When Abby was 11, doctors snipped a nerve to remove a cancerous brain toumor. She lost something in the process, all sensation in her left eye. Total Hours: 1

Greg Borschel: 2015 Mar 5 Speaker. Pioneering eye surgery - Corneal Neurotization. CBC News Network and CBC Toronto; CHEX Peterborough, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Zuker, Ronald; Ali, Asim. Doctors are calling it a pioneering technique to restore sensation to the eye. It is an innovation that could prevent blindness. A new nerve graft transplant has been used on several patients at Toronto's Hospital for Sick Children...What doctors have done is fairly remarkable. Imagine having no feeling in one eye, you would be able to see but you wouldn't be able to feel wind, dust or an infection. This leads to scratching and scaring of the cornea and eventually blindness. That was the scenar.

Greg Borschel: 2015 Mar 5 Speaker. Canadian doctors pioneer new technique that restores sensation to eye - Corneal Neurotization. Global National, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Zuker, Ronald; Ali, Asim. You know when you have that feeling that there is something in your eye? It's the feeling that Abby Messner took for granted until she lost that feeling...It's a rare condition called corneal anaesthesia where a nerve in the eye doesn't work...Surgeons at SickKids hospital have pioneered a new surgery to restore that feeling by taking a nerve graft from the leg into the eye.

Total Hours: 1

Greg Borschel: 2015 Mar 5 Speaker. Canadian doctors pioneer new technique that restores sensation to eye - Corneal Neurotization. Global Toronto, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Zuker, Ronald; Ali, Asim. SickKids surgeons pioneer new surgery that restores lost feeling in eye. Carey Marsden reports.

Total Hours: 1

Greg Borschel: 2015 Mar 5 Speaker. New surgey proves it's good to have "a lot of nerve". City TV, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Zuker, Ronald; Ali, Asim. You've heard the saying 'eye for an eye,' but from a medical perspective that could be further from the truth. A radical new surgery that restores feeling in the eye, by taking a small nerve from a patient's leg... Eighteen year old Abby has a new nerve in her eye that was once in her calf. Exciting because she is the first one to undergo this new technique called corneal neurotization. It allows those with no feeling in their eye to regain sensation.

Total Hours: 1

Greg Borschel: 2015 Mar 5 Article Feature: MetroNews, Hamilton Spectator, MyKawthra.com, Yahoo Canada News, News Locker, WesterlyNerws.ca, Parksville Qualicam Beach, Fort Fra. Nerve from leg restores lost feeling in eye. Canadian Press - CTV, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory; Zuker, Ronald; Ali, Asim. Canadian pediatric surgeons have pioneered a technique to restore missing feeling in the eye — and prevent subsequent vision loss — using a nerve taken from a patient's leg and grafting it onto an existing healthy nerve in the face. The minimally invasive operation brings sensation back to children born without feeling in one or both eyes, or to those who have lost feeling due to injury or surgery to remove a brain tumour. Called corneal anaesthesia...relatively rare - SickKids sees a handful of.

Total Hours: 1

Greg Borschel: 2015 Mar 5 Speaker. Canadian doctors pioneer new technique that restores sensation to eye. GlobalNews.ca, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory; Zuker, Ronald; Ali, Asim. Canadian doctors pioneer new technique that restores sensation to eye

Abby Messner tried injections to her eye, wearing specialized hard contact lenses, surgeries to remove scarring and even stitching part of her eye closed. Years ago, the 18-year-old lost feeling in her left eye – a condition called corneal anaesthesia after she had a brain tumour removed...Canadian scientists out of the Hospital for Sick Children say they've pioneered an innovative surgery that restores feeling in the eye by t.

Total Hours: 1

Greg Borschel: 2015 Mar 5 Speaker. Eye nerve graft restores sensation. CBC.ca, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory; Zuker, Ronald; Ali, Asim. Loss of sensation in the eye that gradually leads to blindness has been prevented with an innovative technique, Canadian surgeons say. Abby Messner, 18, of Stouffville, Ont., lost feeling in her left eye after a brain tumour was removed, along with a nerve wrapped around it, when she was 11. Messner said she didn't notice the loss of feeling until she scratched the eye. Messner wasn't able to feel pain in the eye, a condition called corneal anaesthesia... Over time, ophthalmology surgeon Dr. Asim.

Total Hours: 1

Evaluation Details: http://www.cbc.ca/news/health/eye-nerve-graft-restores-sensation-1.2982073.

Greg Borschel: 2015 Mar 5 Speaker. Corneal Anastasia. Iask. ca, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory; Zuker, Ronald; Ali, Asim. Total Hours: 1

Greg Borschel: 2015 Mar 5 Speaker. Restoring nerve sensations - Corneal Neurotization. CBC Radio One; Metro Morning, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Zuker, Ronald; Ali, Asim. Doctors at Toronto's Hospital for Sick Children have not only saved a teen agers vision, they've made a made medical breakthrough and the procedure is now being picked up by other surgeons. It involves a unique nerve transplant. If eyes are indeed windows into the soul eighteen year old Abbey Messner has been reinvigorated. Seven years ago she had major surgery she was left with no feeling in her left eye... Doctor Asim Ali talked to plastic surgeons and together they came up with a procedure tha.

Total Hours: 1

Greg Borschel: 2015 Mar 5 Speaker. Restoring nerve sensations - Corneal Neurotization. 900 CHML Hamilton; Zoomer Radio AM740 Toronto - Health and Lifestyle report, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Zuker, Ronald; Ali, Asim. Canadian pediatric surgeons have pioneered a new technique to restore missing feeling in the eye using a nerve taken from the patient's leg. The nerve is grafted to an existing healthy nerve in the face the minimally invasive operation bring sensation back to children born without feeling in one or both eyes or to those who have lost feeling due to injury or surgery. A team at Toronto's Hospital for Sick Children developed the procedure and the hospital has so far performed the operation on eig. Total Hours: 1

Greg Borschel: 2015 Mar 5 Speaker. Restoring nerve sensations - Corneal Neurotization. Winnipeg's Morning News; CJOB 68 Winnipeg and on CFRA 580 Ottawa, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Zuker, Ronald; Ali, Asim. Canadian pediatric surgeons have pioneered a brand new technique to restore missing feeling in the eye and they're doing it by using a nerve taken from a person's leg. The nerve is grafted onto an existing healthy nerve in the face. The minimally invasive operation brings sensation back to children who were born without feeling and one or both eyes or to those who have lost feeling because of injury or surgery. It's called cornmeal anesthesia. The condition leaves patients unable to feel pain.

Greg Borschel 2015 Apr 27 Invited Speaker. Management of sarcoma in children. The Hospital for Sick Children, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.; Hopyan, Sevan.

Total Hours: 1

Greg Borschel 2014 Nov Women's Microsurgery Group ViOptix Travel Scholarship, Student, American Society for Reconstructive Microsurgery, United States. (Studen Travel Scholarship, Specialty: Plastic and Reconstructive Surgery).

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.

Mitch Brown: 1. Best Paper - Breast Section, American Society of Plastic Surgeons, Annual Meeting - Chicago, ILL -- Quality of recovery in women undergoing autogenous breast reconstruction in an ambulatory setting. Armstrong K, Davidge D, Brown M, Morgan P, Semple J Oct. 12, 2014.

Howard Clarke: Positions Held and Leadership Experience

1987 - present Consulting Staff, Maxillo-facial Clinic. Holland Bloorview, Kids Rehabilitation Hospital,

Toronto, Ontario.

Active Staff Surgeon, Plastic Surgery. The Hos-1987 - present

pital for Sick Children, Toronto, Ontario.

1987 - present Associate Staff Surgeon, Plastic Surgery. University Health Network, Toronto, Ontario.

Clinical Professor. College of Medicine, Korea 2003 - present

University, Seoul, Korea.

Professor. Department of Physical Therapy, 2003 - present

University of Toronto, Toronto, Ontario.

Professor. Department of Surgery, University of 2003 - present

Toronto, Toronto, Ontario.

2014 - present Co-Chair, Promotions Committee, Department

of Surgery.

2010 - 2014 Member, Promotions Committee, Department

of Surgery.

American College of Surgeons

Member, Advisory Council for Plastic and 2013 - present

Maxillofacial Surgery.

American Society of Plastic Surgeons

2013 - present ASPN Representative, Board of Directors.

Associacao Brasileira de Cirurgia da Mao

2007 - present Membro Correspondente.

Canadian Society of Plastic Surgeons

2015 - present President.

2014 - 2015 Vice President.

2013 - 2014 Vice-President Elect.

Royal College of Physicians and Surgeons of Canada

2012 - present Member, Specialty Committee in Plastic Sur-

Touchmark Theatre, Board of Directors 2001 - present

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

Craig Fielding: 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: recently joined the membership of the American Burn Association Certification Committee. This is a very prestigious appointment and Joel's focus is to develop standard metrics for verification of pediatric burn units.

David Fisher: 2015 Mar Received the Fred Schudy Memorial Research Award, The American Association of Orthodontists Foundation. Understanding the enigmatic, dwarfed mandible in non syndromic Pierre Robin sequence, its morphology, growth, associated clinical burdens and implications.

2010 Jul 1 - present Associate Professor, Plastic and

Reconstructive Surgery, Department of Surgery, University of Toronto, Toronto,

Ontario, Canada

2005 Jan 1 - present Project Director, Population Health

Sciences Program, The Hospital for Sick Children, Toronto, Ontario, Canada

2004 Jul 1 - present Active Staff, Medical Director, Cleft Lip

& Palate Program, Division of Plastic & Reconstructive Surgery, The Hospital for Sick Children, Toronto, Ontario, Canada

2000 Jan 1 - present Courtesy Medical Staff, St. Joseph's Health

Centre, Toronto, Ontario, Canada

2002 - present Volunteer Plastic Surgeon, Operation Smile

> 2014 - Bogota, Columbia 2015 - Guwahati, India

The Hospital for Sick Children

2012 Feb - present POCU Quality and Risk Management,

Toronto, Ontario, Canada

University of Toronto, Faculty of Medicine

2002 May 31 -Examiner, Objective Structured

present Assessment of Technical Skills for Surgical

Transforming Faces Worldwide

2006 Jun 1 - present Medical Advisor, Medical Advisory

Committee

Canadian Society of Plastic Surgeons

2015 Jun - present Senior Director, Educational Foundation

Board, Canada

Editorial Boards

2009 Jan 1 - present Journal of Plastic, Reconstructive &

Aesthetic Surgery

2009 Jan 1 - present Plastic and Reconstructive Surgery

2009 Jan 1 - present The Cleft Palate-Craniofacial Journal

**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

1999 Jan 1 - present Medical Director, The Centre for

> Craniofacial Care and Research, The Hospital for Sick Children, Toronto,

Ontario, Canada

1998 May 29 -Full Member, Institute of Medical

Science, University of Toronto, Toronto, present

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 Association of Plastic Surgeons

2006 Jan - 2006 Dec Member, Membership Committee

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

Iournal

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

Brent Graham: appointed as the Editor in Chief of The Journal of Hand Surgery

Marc Jeschke: American College of Surgeons. 2014 Oct - 2017 Oct Member, Scientific Forum Committee, United States.

Society of Critical Care Medicine-2014 Dec - 2018 Feb Member, Research Network Task Force, United States.

Marc Jeschke: 2014 Nov 3D Skin printing. CBS News. New York, United States.

Marc Jeschke: 2014 Oct The Nature of Things. CBC TV. Canada

Marc Jeschke: 2014 Jul Burns due to hot liquid. Toronto Star. Toronto, Ontario, Canada.

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

Frank Lista: won the award for Best Moderator at the ASAPS San Francisco meeting in 2014.

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

Steve McCabe: Received the William K. Lindsay Faculty Research Mentor Award 2015.

**Steve McCabe:** appointed a Visiting Plastic Surgery Professor by the American Society for Surgery of the Hand.

Christine Novak: Program Chair at the American Association of Hand Surgery January 2015 in Bahamas.

Christine Novak: Received Best Paper Award. Williams M, Novak CB, Conaty K: Evaluation of the Patient Specific Functional Scale in Hand Fractures. Presented at the Canadian Society of Hand Therapists Annual Meeting, Halifax, Nova Scotia, May 2, 2014.

Christine Novak: Received the Educational Foundation Award for the best Epidemiology & Biostatistics presentation by a resident. Baltzer H, Roy M, Novak C, McCabe S. Binhammer P, von Schroeder H: A mixed-methods assessment of direct and indirect

patient costs following hand trauma. Presented at the Canadian Society of Plastic Surgeons, Annual Meeting, Montreal, Quebec, June 27, 2014.

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

Stefan Hofer: Had a great showing at the Ironman Triathlon Competition on March 22nd, 2015 in Sydney, Australia. Unbelievable achievement to finish this race which consists of a 2.4-mile (3.86 km) swim, a 112-mile (180.25 km) bicycle ride, and a marathon 26.2-mile (42.2 km) raced in that order and without a break.

Joan Lipa: Sunnybrook Education Advisory Committee Patient and Family Education Print Funds Competition. Breast Reconstruction with the Latissimus Dorsi Flap: A Patient Resource \$1000 (for patient educational resource development – not a research study)

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.

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

James Mahoney: Received the Squires Hyland Trust Award in April 2015. "The award assists senior physicians as they continue to teach new generations in pursuit of medical excellence. A highlight for Dr. James Mahoney was his invitation to Saudi Arabia where he was a visiting professor.

Cho Pang: Congratulations to Senior Surgeon Scientist, Dr. Cho Y. Pang who officially retired from active scientific research and assumed Professor Emeritus status at the end of March 2015.

Herb von Schroeder: American Association for Hand Surgery Hand Review Course

Herb von Schroeder, MD, Salvage Procedures for the Arthritic Wrist 2014.

Kyle Wanzel: Division of Plastic and Reconstructive Surgery Chair's Award for "going above and beyond" 2014. This year's award was given to Dr. Kyle Wanzel who works tirelessly to organize the resident seminar series and also functions as the Associate Program Director.

Michael Weinberg: recently honored with a teaching award from the Mississauga Academy of Medicine.

**Karen Wong:** 2015 Jun Development of a Robotic Approach to Cleft Palate Repair, Canadian Society of Plastic Surgery (CSPS), Victoria, British Columbia, Canada. (Research Award). Best clinical paper.

Karen Wong: 2015 May Development of a Robotic Approach to Cleft Palate Repair,, 2015 Gallile Batement and McMurrich Resident Poster Research Competition. (Research Award) First Place Research Award, Gallie Day.

Toni Zhong: Recipient of a Wightman-Berris Academy Postgraduate Teaching Award for 2014-2015.

Toni Zhong: 2014 Sep - present Associate Professor Faculty, Health Policy, Management and Evaluation, Institute of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada

Toni Zhong: 2015 Jan - present Adjunct Scientist, Institute for Clinical Evaluative Sciences, University of Toronto, Toronto, Ontario, Canada

Toni Zhong: CIHR NEW INVESTIGATOR AWARD 2015 Jul - 2020 Jun

Improving Access to Optimized Postmastectomy Breast Reconstruction through Health Services Research and Clinical Trials for Breast Cancer Survivors. Canadian Institutes of Health Research (CIHR). 300,000 CAD. Toronto, Ontario, Canada.

Ron Zuker: 2014 Jul - 2015 Jun Best Clinical Paper, American Society for Peripheral Nerve, Paradise Island, Bahamas. *Corneal Reinnervation: A Minimally Invasive Approach.* 

Ron Zuker: 2014 Jun CSPS Lifetime Achievement Award, Canadian Society of Plastic Surgeons, Montreal, Quebec, Canada. (Distinction)

Ron Zuker: 2014 Nov 2014 University of Toronto Research Award, University of Toronto, Faculty of Medicine. (Research Award)

Ron Zuker: 2014 Jul - 2015 Jun Lifetime Achievement Award, University of Toronto, Division of Plastic and Reconstructive Surgery. (Distinction)

Ron Zuker: 2015 - present Director of Alumni Relations, Division of Plastic and Reconstructive Surgery, University of Toronto, Toronto, Ontario, Canada

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, Jordon with ISAPS-LEAP Surgical Relief Team 2015.

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

#### Oleh Antonyshyn:

Invited Lectures and Presentations

- 2015 May 16 Keynote Speaker. Panfacial fractures: Current management. Annual meeting of the Ukrainian Association of Craniomaxillofacial Surgeons, Kyiv, Kyïv, Ukraine. Presenter(s): Antonyshyn O. Total Hours: 1
- 2015 May 16 Keynote Speaker. Applications of 3D imaging, computer modeling, 3D navigation, and rapid prototyping in craniomaxillofacial surgery. Annual meeting of the Ukrainian Association of Craniomaxillofacial Surgeons, Kyiv, Kyïv, Ukraine. Presenter(s): Antonyshyn O. Total Hours: 1
- 2015 May 5 Invited Speaker. The fracture biomodel. Royal Australasian College of Surgeons, 84th Annual Scientific Congress, Perth, Western Australia, Australia. Presenter(s): Antonyshyn O. Total Hours: 1
- 2015 May 5 Invited Speaker. Patient specific cranial vault reconstruction. Royal Australasian College of Surgeons, 84th Annual Scientific Congress, Perth, Western Australia, Australia. Presenter(s): Antonyshyn O. Total Hours: 1
- 2015 May 5

  Invited Speaker. Secondary orbital deformities:
  Analysis and reconstruction. Royal Australasian
  College of Surgeons, 84th Annual Scientific
  Congress, Perth, Western Australia, Australia.
  Presenter(s): Antonyshyn O. Total Hours: 1
- 2015 May 5 Invited Speaker. Collapsed nasal deformity: Evaluation and treatment. Royal Australasian College of Surgeons, 84th Annual Scientific Congress, Perth, Western Australia, Australia. Presenter(s): Antonyshyn O. Total Hours: 1
- 2015 May 5 Invited Speaker. Post-trauma malocclusion: Classification and treatment. Royal Australasian College of Surgeons, 84th Annual Scientific Congress, Perth, Western Australia, Australia. Presenter(s): Antonyshyn O. Total Hours: 1
- 2014 Sep 22 Invited Lecturer. A 3D Statistical Skull Model: Development and application in the design and outcome analysis of craniofacial surgery. AOCMF, Prague, Czech Republic. Presenter(s): Antonyshyn O. AOCMF 2nd Clinic Priority Program Conference. Imaging and Planning Surgery.
- 2015 Apr 10 Speaker. The Craniofacial Implant Press System. INVESTING IN COMMERCIALIZATION PARTNERSHIPS (ICP) FUNDING ANNOUNCEMENT FOR SUNNYBROOK RESEARCH INSTITUTE, Toronto, Ontario, Canada. Presenter(s): Antonyshyn O, Mainprize J, Edwards G. Presenting to THE HONOURABLE GARY GOODYEAR, MINISTER OF STATE FOR THE FEDERAL ECONOMIC DEVELOPMENT AGENCY FOR SOUTHERN ONTARIO, AND JOHN CARMICHAEL, MEMBER OF PARLIAMENT FOR DON VALLEY. Total
- 2015 Mar 13 Speaker. The Craniofacial implant press system. OCE-ICIGT Challenge Fund Presentation, Toronto, Ontario, Canada. Presenter(s): Antonyshyn O, Mainprize J, Edwards G. Total Hours: 1

- 2015 Feb 5 Keynote Speaker. Surgical Mission to Kyiv. Queen's University Ukrainian Student Association, Kingston, Ontario, Canada. Presenter(s): Antonyshyn O. Total Hours: 1
- 2014 Dec 2 Invited Lecturer. CUF/Rainbow Humanitarian Surgical Mission Kyiv 2014. Ukrainian Professional and Businessmen's Association, Toronto, Ontario, Canada. Presenter(s): Antonyshyn O.
- 2014 Nov 27 Invited Lecturer. CUF/Rainbow Humanitarian Surgical Mission, Kyiv 2014. Ukrainian Professional and Businessmen's Association, Toronto, Ontario, Canada. Presenter(s): Antonyshyn O.
- 2014 Oct 14 Lecturer. Classification and decision-making in the management of facial fractures. Toronto, Ontario, Canada. Presenter(s): Antonyshyn O. Sunnybrook Trauma Rounds.
- 2014 Sep 11 Lecturer. Operation Rainbow Kyiv Ukraine 2014.
  Toronto, Ontario, Canada. Presenter(s): Antonyshyn O. United for Ukraine Gala Dinner with Prime Minister Stephen Harper.
- 2015 May 5

  Keynote Speaker. Panfacial fractures. Current approach. Royal Australasian College of Surgeons, 84th Annual Scientific Congress, Perth, Western Australia, Australia. Presenter(s): Antonyshyn O. Total Hours: 1

Brett Beber: Co-chair at the Annual Toronto Breast Symposium in April 2015.

Brett Beber: Invited speaker, American Society of Plastic Surgical Nurses Annual Meeting, May 2015 in Montreal

Paul Binhammer: has been travelling as Chair for the AO North American Hand Education Committee. Through this appointment he has been trying to raise the bar of AO Trauma

seminars for Hand and Wrist Fracture Management held throughout North America.

#### Greg Borschel:

- 2015 Jun 7 Moderator. Session 1 Imaging. Sunderland Society Meeting, Ann Arbor, Michigan, United States.
   Michel Kliot; Michael DiPietro; Jonathan Finnoff; Hemant Parmar.
   Total Hours: 1
- 2015 Jun 7 Moderator. Session 2 Adult Brachial Plexus, Peripheral Nerve, Prosthesis. Sunderland Society Meeting, Ann Arbor, Michigan, United States. Paul Cederna; Mariano Socolovsky; Kevin C Chung. Total Hours: 1
- 2015 Jun 7 Presenter. Corneal Neurotization: A minimally invasive surgical approach to treat neurotrophic keratopathy. Sunderland Society Meeting, Ann Arbor, Michigan, United States. Borschel, Gregory H. Total Hours: 1
- 2015 Jun 7 Presenter. An engineered biocampatible drug delivery system enhances nerve regeneration after delayed repair. Sunderland Society Meeting, Ann Arbor, Michigan, United States. Borschel, Gregory H.

  Total Hours: 1
- 2015 May 15 Moderator. Plastic Surgery Research Council, Seattle, Washington, United States. Total Hours: 1
- 2015 May 12 Invited Speaker. SickKids experience with Gracillis and the cross face nerve graft. Royal Society of Medicine, London, London, City of, United Kingdom. Presenter(s): Borschel, Gregory H. Total Hours: 1

- 2015 Apr 17 Presenter. Electrical stimulation of the proximal stump. Techniques in Brachial Plexus Symposium, Paris, Paris, France. Presenter(s): Borschel, Gregory H.

  Total Hours: 1
- 2015 Apr 11 Panelist. Technology in Plastic Surgery: What's cool, What's Hot and What's not. American Association of Plastic Surgeons, Scottsdale, Arizona, United States. Presenter(s): Borschel, Gregory H.; Dayan, Joseph; Selber, Jesse.

  Total Hours: 1
- 2015 Mar 22 Conducting a Master Class. Whats new in nerve reconstruction. World Society for Reconstructive Microsurgery, Mumbai, India. Presenter(s): Borschel, Gregory.

  Total Hours: 1
- 2015 Mar 22 Invited Speaker. Nerve Transfers and Reconstructions. World Society for Reconstructive Microsurgery, Mumbai, India. Presenter(s): Borschel, Gregory.

  Total Hours: 1
- 2015 Feb 28 Presenter. Multiple Syndactyly Releases: Update.
  Pediatric Hand Study Group, St. Louis, Missouri,
  United States. Presenter(s): Borschel, Gregory.
  Total Hours: 1
- 2014 Nov 21 Invited Speaker. Pediatric Microvascular Surgery. Craniomaxillofacial Surgery; Pediatric Reconstuctive Surgery, New Orleans, Louisiana, United States. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Oct 29 Invited Speaker. Pharmacologic Rescue of Motor and Sensory Function Following Neonatal Peripheral Nerve Injury. American College of Surgeons, San Francisco, California, United States. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Sep 20 Invited Speaker. Nerve Repair Research Where are we today. American Society for Surgery of the Hand, Boston, Massachusetts, United States. Presenter(s): Borschel, Gregory H.

  Total Hours: 1
- 2014 Sep 13 Invited Speaker. Neonatal Brachial Plexus injury reconstruction. Dr. Fausto Viterbo / UNESP, Sao Paulo State University, Botucatu, São Paulo, Brazil. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Sep 13 Invited Speaker. Corneal Neurotization. Dr. Fausto Viterbo / UNESP, Sao Paulo State University, Botucatu, São Paulo, Brazil. Presenter(s): Borschel, Gregory H.

  Total Hours: 1
- 2014 Sep 13 Chair. Brachial Plexus and Hand, II and III. Dr. Fausto Viterbo / UNESP, Sao Paulo State University, Botucatu, São Paulo, Brazil. Presenter(s): Borschel, Gregory H. Total Hours: 2
- 2014 Sep 13 Chair. Unusual Reinervations II. Dr. Fausto Viterbo / UNESP, Sao Paulo State University, Botucatu, São Paulo, Brazil. Presenter(s): Borschel, Gregory H.

  Total Hours: 1
- 2014 Sep 13 Chair. Free Flaps II. Dr. Fausto Viterbo / UNESP, Sao Paulo State University, Botucatu, São Paulo, Brazil. Presenter(s): Borschel, Gregory H. Total Hours: 1

- 2014 Sep 12 Invited Speaker. Pharmacologic Rescue of Motor and Sensory Function by the Neuroprotective Compound P7C3 Following Neonatal Peripheral Nerve Injury in a Rat Model. Dr. Fausto Viterbo / UNESP, Sao Paulo State University, Botucatu, São Paulo, Brazil. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Sep 12 Invited Speaker. A rat study of side-to side bridging to promote nerve regeneration after delayed surgical repair of transected nerve. Dr. Fausto Viterbo / UNESP, Sao Paulo State University, Botucatu, São Paulo, Brazil. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Sep 12 Invited Speaker. Facial Paralysis in Children. Dr. Fausto Viterbo / UNESP, Sao Paulo State University, Botucatu, São Paulo, Brazil. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Jul 20 Presenter. Advances in Nerve Regeneration in Facial Paralysis. Moebius Syndrome Symposium, Washington, Washington, United States. Presenter(s): Borschel, Gregory H.
   Total Hours: 1
- 2014 Jul 20 Presenter. Aspects of Pediatric Facial Paralysis Reonstruction. Moebius Syndrome Symposium, Washington, Washington, United States. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Jul 17 Presenter. Advances in Nerve Regeneration Research. Moebius Syndrome Symposium, Washington, Washington, United States. Presenter(s): Borschel, Gregory H.

  Total Hours: 1
- 2014 Jul 11 Outcomes following lower extremity sarcoma resection and reconstruction with vascularized fibula flaps in a paediatric population. European Society of Plastic, Reconstructive and Aesthetic Surgery, Edinburgh, Scotland, United Kingdom. Presenter(s): Sainsbury, David. (Trainee Presentation) Total Hours: 0.5
- 2014 Jul 10 Presenter. Advances in Nerve Regeneration, Facial Paralysis and Cornea Reinnerateation. Asaf Harofeh Medical Center, Kfar Adumim, Kfar Adumim, Israel. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Jul 10 Presenter. Corneal Neurotization. Asaf Harofeh Medical Center / Grand Rounds, Kfar Adumim, Kfar Adumim, Israel. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Mar 7 Moderator. Best Papers Session 2. Plastic Surgery Research Council, New York, New York, United States. Presenter(s): Borschel, Gregory H. (Trainee Presentation)
  Total Hours: 0.5
- 2014 Jun 26 Invited Speaker. Paediatric Faical Transplantation.
  Interviewer: Beverly Thomson. Canada AM. CTV
  News, Toronto, Ontario, Canada. Presenter(s):
  Borschel, Gregory H. End date: 2014 Jun 26.
  Total Hours: 1
- 2015 Apr 29 Speaker. To Learn about classic and more recent aspects of the managment of the hand in Apert Syndrome. The Hospital for Sick Children; Plastic and Reconstructive Surgery Rounds, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2015 Jan 14 Invited Speaker. Nerve Transfers; use in nerve injury and spinal cord injury. The Hospital for Sick Children; Neurology Rounds, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H. Total Hours: 1

- 2014 Dec 18 Invited Speaker. Facial transplantation. The Hospital for Sick Children; Bioethics Grand Rounds, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.

  Total Hours: 1
- 2014 Dec 5 Invited Speaker. New Approaches to Enhance Recovery After Nerve Injury. University of Toronto; Department of Surgery Grand Rounds, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H. To identify barriers to successful nerve regeneration

  To become familiar with new investigational and clinically available methods of enhancing nerve regeneration.

  Total Hours: 1
- 2014 Nov 5 Invited Speaker. Brachial Plexopathy. The Hospital for Sick Children; Neurology Grand Rounds, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.

  Total Hours: 1
- 2014 Nov 5 Invited Speaker. Nerve Transfers. The Hospital for Sick Children; Plastic and Reconstructive Surgery Rounds, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H. Total Hours: 1
- 2014 Oct 18 Lecturer. Surgical Skills Workshop. The Hospital for Sick Children; Pediatric Interventional Radiologist Symposium, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.
  Total Hours: 7
- 2014 Jul 23 Invited Speaker. Pediatric hand trauma. The Hospital for Sick Children, Plastic and Reconstructive Rounds, Toronto, Ontario, Canada. Presenter(s): Borschel, Gregory H.

  Total Hours: 1

#### Mitch Brown:

- 1 Managing breast asymmetry. London Breast Meeting. Sept. 5, 2014. London, UK
- 2 Moderator: Panel -Longevity in breast reduction and mastopexy. London Breast Meeting. Sept. 5, 2014 London, UK
- My approach to implant selection in breast augmentation.
   London Breast Meeting.
   Sept. 5, 2014 London, UK
- 4 Surgical technique: How to carry out an augmentation/mastopexy. London Breast Meeting Sept. 6, 2014 London, UK
- 5 Direct to implant breast reconstruction. Atlantic Society of Plastic Surgery Sept. 13, 2014 Fredericton, NB
- 6 Surgical treatment of the tuberous breast. Atlantic Society of Plastic Surgery. Sept. 13, 2014 Fredericton, NB
- Breast Reconstruction Awareness: Current options and approaches Wellspring. Sept.
   15, 2015 Toronto, ON
- 8 Autoaugmentation mastopexy. American Society of Plastic Surgeons. Oct. 13, 2014. Chicago
- Direct to implant breast reconstruction: Patient selection and technique. 31st Annual
  Atlanta Breast Surgery Symposium Southeastern Society of Plastic and Reconstructive
  Surgeons. Jan. 22, 2015 Atlanta, Georgia
- Implant malposition, prevention and correction. 31st Annual Atlanta Breast Surgery
   Symposium Southeastern Society of Plastic and Reconstructive Surgeons. Jan. 22,

- 2015 Atlanta, Georgia
- Observer and commentator live surgery Breast Reconstruction with synthetic mesh, implants and fat grafting. 31st Annual Atlanta Breast Surgery Symposium Southeastern Society of Plastic and Reconstructive Surgeons Jan. 22, 2015. Atlanta, Georgia
- 12 Single stage correction of the tuberous breast. 31st Annual Atlanta Breast Surgery
  Symposium Southeastern Society of Plastic and Reconstructive Surgeons Jan. 22, 2015 Atlanta, Georgia
- 13 Direct to Implant Breast Reconstruction: Indications and Technique. Plastic Surgery at the Red Sea Symposium. Mar. 11, 2015 Eilat, Israel
- 14 Panel discussion: The nurances in breast asymmetry Europe vs. North America.
  - Plastic Surgery at the Red Sea Symposium. Mar. 12, 2015 Eilat, Israel
- 15 Single Stage Correction of the Tuberous Breast Deformity. Plastic Surgery at the Red Sea Symposium. Mar 12. 2015 Eilat, Israel
- The Prevention and Management of Breast Implant Malposition. Plastic Surgery at the Red Sea Symposium. Mar. 13, 2015 Eilat, Israel
- 17 Treating Breast Ptosis with Internal Glandular Reshaping. Plastic Surgery at the Red Sea Symposium. Mar. 14, 2015 Eilat, Israel
- 18 Webinar Solving challenging cases in aesthetic breast surgery. American Society of Aesthetic Plastic Surgery. March 23, 2015 Toronto
- 19 Managing infections in prosthetic breast surgery. Paris Breast Rendez-vous. Mar. 27, 2015 Paris, France
- 20 My most difficult case. Paris Breast Rendez-vous Mar. 27, 2015 Paris, France
- 21 Moderator session Breast Augmentation. Paris Breast Rendez-vous. Mar. 28, 2015
  Paris, France
- The right plane: subglandular, subfascia or dual plane.. Paris Breast Rendez-vous. Mar.
   28, 2015 Paris, France
- 23 The current status of fat injection to the breast. 15th Annual Toronto Breast Surgery Symposium. Apr. 23, 2015 Toronto
- 24 Secondary breast augmentation. Grand Rounds Division of Plastic Surgery - University of Pennsylvania. May 14, 2015 Pittsburgh, Pennsylvania
- 25 Visiting Professor Division of Plastic and Reconstructive Surgery. University of Pennsylvania. May 14, 2015. Pittsburgh, Pennsylvania
- 26 Interactive Panel: Challenging cases in aesthetic breast surgery. American Society of Aesthetic Plastic Surgeons. May 16, 2015 Montreal, Quebec
- 27 Instructional Course: Aesthetic breast reconstruction: The new paradigm in breast surgery. American Society of Aesthetic Plastic Surgeons May 17, 2015 Montreal, Quebec
- 28 Surgical advocacy: Developing an initiative. Canadian Society of Plastic Surgeons. June4, 2015 Victoria, BC

Rob Cartotto: Invited Speaker: Canadian Society of Plastic Surgeons Annual Meeting, Montreal, June 28 2014: "Canadian Expert Series: Burn Care in Canada"

#### **Howard Clarke:**

Invited Lectures and Presentations

- 2015 Jun 17 The role of nerve transfers in the treatment of obstetrical brachial plexus palsy. The Eleventh Annual Lindsay-Thomson Symposium in Pediatric Plastic Surgery, Toronto, Ontario, Canada.
- 2014 Oct 17 Northern Ontario Outreach. 13th Annual Ralph T. Manktelow Lectureship in Hand Surgery, Toronto, Ontario, Canada.

#### Presented Abstracts

- 2015 Jun 9 Outcomes following single root reconstruction of the upper trunk in Erb's palsy. Sunderland Society, Ann Arbor, Michigan, United States. Presenter(s): Clarke HM.
- 2015 Jun 8 Pain in children following microsurgical reconstruction for obstetrical brachial plexus palsy.
  Sunderland Society, Ann Arbor, Michigan,
  United States. Presenter(s): Clarke HM.
- 2015 Jun 6 Functional outcomes following single-root reconstruction of the upper trunk in Erb's palsy.
  Canadian Society of Plastic Surgeons, Victoria,
  British Columbia, Canada. Presenter(s): Davidge K, Ho E, Clarke HM.
- 2015 Jun 6 Pain in children following microsurgical reconstruction for obstetrical brachial plexus palsy.
  Canadian Society of Plastic Surgeons, Victoria,
  British Columbia, Canada. Presenter(s): Ho ES,
  Curtis CG, Clarke HM.
- 2015 Jan 24 Pain in children with obstetrical brachial plexus palsy and primary microsurgical reconstruction.
  American Society for Peripheral Nerve, Nassau,
  Bahamas. Presenter(s): Ho ES, Curtis CG, Clarke
- 2015 Jan 24 Functional outcome following single-root reconstruction of the upper trunk in Erb's palsy.

  American Society for Peripheral Nerve, Nassau, Bahamas. Presenter(s): Davidge K, Ho E, Clarke HM.
- 2014 Oct 20 Congenital limb reduction defects associated with maternal thrombophilia. 64th Annual Meeting of the American Society of Human Genetics, San Diego, California, United States. Presenter(s): Ordal L, Keunen J, Martin N, Shehata N, Borschel G, Clarke HM, Toi A, Shuman C, Chitayat D.

#### Instructional Course

2015 Jan 25 Pediatric Peripheral Nerve Injury (Non-OBPP).
American Society for Peripheral Nerve, Nassau,
Bahamas. Presenter(s): Olson J, Clarke HM, Ho
E, Muset A.

Jeff Fialkov: invited lecturer at the Israel Society of Plastic and Aesthetic Surgery for their 40th Annual Meeting in Tel Aviv, Israel in November 2014.

Jeff Fialkov: invited lecturer for the 49th Annual Meeting of the Association des

spécialistes en chirurgie plastique et esthétique du Québec in February 2015 in Mount Tremblant, Quebec.

#### David Fisher:

2015 Jun 17 Paediatric Plastics - "cosmetic" surgery for kids - ear deformities. 11th Annual Lindsay-Thomson Symposium. Toronto, Ontario, Canada. Presenter(s): Fisher DM. (Dr. Kenneth Wilson, Visiting Professor).

- 2015 May 8 Treatment of cleft lip and palate: The middle years. Panel discussion-Moderator, Dr. R. Mann. "Facial Surgery, Ages 2 to 12". 28th Michigan Cleft Palate Association Conference. Grand Rapids, Michigan, United States. Presenter(s): Fisher DM.
- 2015 Apr 30 Paediatric Plastics "cosmetic" surgery for kids - ear deformities. SickKids Paediatric Update Conference. Toronto, Ontario, Canada. Presenter(s): Fisher DM.
- 2014 Nov 22 Craniomaxillofacial surgery: Pediatric reconstructive surgery course. Panel discussion: Controversy in cleft care. AO North America. New Orelans, Louisiana, United States. Presenter(s): Moderator: Buchanan E. Lecturers: Fisher DM, Khechoyan D, Padwa B.
- 2014 Nov 21 Craniomaxillofacial surgery: Pediatric reconstructive surgery course. Cleft lip repair-current status. AO North America. New Orleans, Louisiana, United States. Presenter(s): Fisher DM.
- 2014 Nov 21 Craniomaxillofacial Surgery: Pediatric reconstructive surgery course. Q&A discussion session. AO North America. New Orleans, Louisiana, United States. Presenter(s): Fisher DM, Gossain A.
- 2014 Nov 14 Approach on bilateral cleft lip repair. Operation Smile. Bogota, Colombia. Presenter(s): Fisher DM.
- 2014 Nov 14 Evaluation of successful treatment of VFI. Operation Smile. Bogota, Colombia. Presenter(s): Fisher DM.
- 2014 Nov 14 Treatment of cleft nasal deformity. Operation Smile. Bogota, Colombia. Presenter(s): Fisher DM.
- 2014 Nov 14 Unilateral cleft lip repair-An anatomic subunit approximation technique. Operation Smile. Bogota, Colombia. Presenter(s): Fisher DM.
- 2014 Oct 17 Treatment protocol & organization at SickKids.
  National Cleft Meeting, University Hospital SUS.
  Malmo, Sweden. Presenter(s): Fisher DM.
- 2014 Oct 13 Panelist. Deep Dives-Case discussion & video labs for deep dive pathways-Cleft lip and cleft palate.

  American Society of Plastic Surgeons. Chicago, Illinois, United States. Presenter(s): Moderator: Richard Kirschner MD. Panelists: Joseph Losee MD, David Fisher MD, Roberto Flores MD.
- 2014 Oct 12 Panelist. American Society of Maxillofacial Surgeons (ASPS) Day-Unilateral cleft lip: Marking the patient & planning the repair. American Society of Plastic Surgeons. Chicago, Illinois, United States. Presenter(s): Moderator: Richard Kirschner MD. Panelists: Joseph Losee MD, David Fisher MD, Roberto Flores MD.
- 2014 Oct 10 Invited Course Instructor. Three hour instructional course-carving a 3D ear framework: a hands on surgical simulation. American Society of Plastic Surgeons. Chicago, Illinois, United States. Presenter(s): Fisher DM, Wilkes G, Nagata S, Guilfoyle R, Kasrai L.
- 2014 Sep 26 Single stage autologous ear reconstruction for microtia: 10 consecutive cases. The 1st Congress of the International Society of Auricular Reconstruction. Paris, France. Presenter(s): Fisher DM, Kasrai L.
- 2014 Sep 19 Cleft Palate/Craniofacial Course for Speech Pathology Students-Cleft palate repair techniques & outcomes. Speech Pathology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Fisher DM.

#### **Christopher Forrest:**

- 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 Plstic Surgeons (CSPS). Victoria, British Columbia, Canada. Presenter(s): podolsky, Fisher DM, Wong KW, Drake JM, Forrest CR.
- 2015 May 1

  Invited Lecturer. Craniofacial Microsomia:
  Sickkids Approach to Management. ICHOM
  Meeting: Consortium to develop outcome measures for Craniofacial Microsomia. Rotterdam,
  Netherlands. Presenter(s): Forrest CR.
- 2015 Apr 24

  Presenter. Development of a robotic approach to cleft palate repair. Phase 1: Creation and validation of a cleft palate simulator. American Cleft Palate-Craniofacial Association 72nd annual Meeting and Symposia. Palm Springs, California, United States. Presenter(s): Podolsky DJ, Fisher DM, Wong KW, Looi T, Drake JM, Forrest CR.
- 2014 Nov 4

  Invited Lecturer. Syndromic Craniosynostosis: A management plan. Birmingham Children's Hospital Craniofacial Rounds. Birmingham, United Kingdom. Presenter(s): Forrest CR.
- 2014 Nov 4 Invited Lecturer. Positional Plagiocephaly.
  Birmingham Children's Hospital Craniofacial
  Rounds. Birmingham, United Kingdom. Presenter(s): Forrest CR.
- 2014 Oct 1 Invited Lecturer. Defining Glossoptosis > Diagnosing, analyzing and treating Pierre Robin Sequence: A consensus Meeting. Utrecht, Netherlands. Presenter(s): Forrest CR.
- 2015 Feb 20

  Presenter. Development of a robotic approach to cleft palate repair. Univeristy of Toronto, Division of Plastic and Reconstructive Surgery Research Day. Toronto, Ontario, Canada. Presenter(s): Podolsky DJ, Fisher DM, Wong KK, Drake JM, Forrest CR.
- 2015 Jan 15

  Invited Speaker. Craniofacial Manifestations of Loeys-Dietz Syndrome. The Hospital for Sick Children. Toronto, Ontario, Canada. Presenter(s): Forrest CR. Loeys-Dietz Syndrome Family and Health Care Professional Day.
- 2015 Jan 15 Invited Lecturer. Craniofacial Manifestations of Loeys-Dietz Syndrome. Loeys-Dietz Syndrome Family and Health Care Professional Day The Hospital for Sick Kids. Toronto, Ontario, Canada. Presenter(s): Forrest CR.

#### **Brent Graham:**

June 2014 Visiting Professor, British Columbia Hand Society, Squamish, BC.

#### Stefan Hofer:

2015 May 28 Invited Speaker. Establishing High Quality
Academic Output from a Microsurgical Practise
& Where Future Research Should be Focused.
EURAPS Research Council Meeting. Edinburgh,
City of, United Kingdom. Symposium: Microsurgery as a Model for Implementing Tissue
Engineering into Clinical Practice May 27th -

28th, 2015.

2015 Apr 18 Invited Lecturer. Reconstruction 1 - Video Session: Harvesting Autologous Donor Sites -- S-GAP / I-GAP flap. 3rd International Breast Symposium. Dusseldorf, Germany. April 17 - 18, 2015

2015 Jan 26 Session organizing chair + Presenter. Sarcoma 101: Achieving excellence in diagnosis and outcome. Perioperative pain control. Perforator flaps in sarcoma reconstruction and Scalp reconstruction. American Society for Reconstructive Microsurgery. Atlantis, Bahamas. January 24 - 27, 2015.

2014 Nov 27 Invited Lecturer. JPRAS Lecture: Microsurgery: From developing a skill to building a practice.
British Association of Plastic Reconstructive and Aesthetic Winter Scientific Meeting. London, City of, United Kingdom.

2014 Sep 4 – 5 Invited Lecturer. Session 1: Risk reducing mastectomy (RRM) and reconstruction. Session 5: Breast conservation failure: completion mastectomy and reconstruction or partial defect reconstruction? Session 6: Allied therapy in breast reconstruction - Flap Monitoring. Session 9: Tips, tricks and pearls in reconstruction - Lecture 1: How to mark a DIEP flap. 1st London Breast Meeting. London, City of, United Kingdom. September 4th - 6th, 2014.

2014 Jul 7 – 10 Session Chair. Basic Science and Tissue Engineering. Invited Lecturer. How to publish your paper in a scientific medical journal. European Society of Plastic Reconstructive and Aesthetic Surgery Meeting. Edinburgh, City of, United Kingdom. July 7 - 11, 2014.

Marc Jescke: 2014 Sep Invited Lecturer. Burn Induced Hyperglycemia- a journey over the last 2 decades with no end in sight. Burn and Shock Trauma Research Institute, Loyola University Chicago, Health Sciences Division. Chicago, Illinois, United States. Visiting Professorship.

**Leila Kasrai:** Invited speaker at the joint winter meeting of BAPRAS/Irish society last 2013: Training of residents in aesthetic surgery- The Canadian Perspective.

Frank Lista: Invited speaker at the educational foundation of CSPS in Montreal in June 2014. Invited speaker at CATBAS, an international plastic surgery meeting in Brussels in June 2014. Moderator for panel on breast augmentation at ASAPS in San Francisco in April 2014. Invited faculty at an ISAPS course with the South African Society of Plastic Surgeons in Feb 2014. Invited speaker at the Pan Pacific plastic surgery meeting in Hawaii in January 2014.

Anne O'Neill: 2015 May Visiting professor. Irish Association of Plastic Surgeons.

John Semple: External Reviewer - Master of Science, Biomedical Communications (MScBMC) Faculty. University of Toronto, Faculty of Medicine. February 25th 2015.

John Semple: Invited Speaker: Canadian Breast Cancer Foundation-Central Office: Whirlpool/KitchenAid Head Office, Mississauga, Ontario, July 24, 2014. Breast Cancer Research.

John Semple: Invited Speaker: Breast Reconstruction Awareness Day, Toronto, Ontario, October 15, 2014. Fat Grafting in Breast Reconstruction.

John Semple: Invited Speaker: American Society for Reconstructive Microsurgery, Nassau Bahamas, January 24, 2015 - January 27, 2015. Enhanced Recovery after Surgery: Post-op Monitoring with Mobile App.

John Semple: Invited Speaker: Canadian Breast Cancer Foundation, Toronto, Ontario, February 12, 2015 - February 13, 2015. Vice Chair - Grant Review Panels.

John Semple: Invited Speaker: Canadian Solutions for the US Healthcare – US Health IT Innovation Summit. Philadelphia, Pennsylvania, USA. March 12 & 13 2015. Dr. J. Semple, Canadian Thought Leader. QoC Health helps reduce healthcare costs and improve outcomes with patient engagement technology.

John Semple: Invited Speaker: American Telemedicine Association Annual Meeting (oral presentation), Los Angeles, California, May 2, 2015 - May 5, 2015. 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.

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

Karen Wong: 2015 May 1 Invited Lecturer. Measuring what matters: development of the CLEFT-Q. Texas Children's Hospital. Houston, Texas, United States. Presenter(s): Wong KWY.

Karen Wong 2015 Jun Development of a Robotic Approach to Cleft Palate Repair, Canadian Society of Plastic Surgery (CSPS), Victoria, British Columbia, Canada. (Research Award). Podolsky D, Fisher D, Wong K, Looi T, Drake J, Forrest C. *Best clinical paper*.

Karen Wong 2015 May Development of a Robotic Approach to Cleft Palate Repair,, 2015 Gallile Batement and McMurrich Resident Poster Research Competition. (Research Award) Podolsky D, Fisher D, Wong K, Looi T, Drake J, Forrest C. *First Place Research Award, Gallie Day.* 

Toni Zhong: 2014 Nov 6 Invited Speaker. 4th Congress of the World Association for Plastic Surgeons of Chinese Descent. Hong Kong, China. Faculty.

Ron Zuker: 2015 Mar 23 Visiting Professor. Approaches to the Facial Paralysis Patient. Details of Cross Face Nerve Grafting. Sri Ramachandra University, Department of Plastic Surgery. Chennai, India.

2015 Mar 11 Visiting Professor. 25th Annual Walter Scott Brown Visiting Professor. University of Illilnois at Chicago, College of Medicine, Department of Surgery. Chicago, Illinois, United States.

2015 Feb 10 Visiting Professor. Facial Paralysis Reconstruction in Children. Cleveland Clinic. Weston, Florida, United States.

2014 Dec 5 Visiting Professor. Conjoined Twins: Etiology, Classification, Surgical Separation and Lessons Learned. Texas Children's Hospital Grand Rounds. Houston, Texas, United States.

2014 Dec 4 Visiting Professor. Facial Reanimation. Texas Children's Hospital Grand Rounds. Houston, Texas, United States.

2014 Nov 18 Visiting Professor. Reconstruction in Extensive Facial Congenital Nevi. Ichilov Hospital. Tel Aviv, Israel.

#### **Continuing Medical Education**

4th Annual Breast Reconstruction Awareness Day (BRA Day) was held on October 15, 2014 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.

The 15th Annual Toronto Breast Symposium was held on April 23rd, 2015 at the Toronto Marriott Bloor Yorkville and welcomed Visiting Professors: Dr. Grant Stevens ASPS Visiting Professor Lecturer from Marina Del Rey, CA who spoke about Augmentation Mastopexy, Dr. Maurizio Nava, The University of Toronto Annual Lecturer, spoke about Maximizing Aesthetics in Reconstructive Breast Surgery. Dr. Nava is head of the Plastic Surgery Unit at the « Instituto Nazionale dei Tumori » in Milan and Mr. Douglas Macmillan, The J Michael Drever Lecturer, who spoke about Therapeutic Mammaplasty in Breast Conserving Surgery. Mr. Macmillan is from The Nottingham Breast Institute in Nottingham, UK. This symposium was chaired by Dr. Mitch Brown and co-chaired by Dr. Brett Beber, Dr. Kyle Wanzel and Dr. Jamil Ahmad.

The 45th Annual Aesthetic Plastic Surgery Symposium was held from April 24-25th, 2015 at the Toronto Marriott Bloor Yorkville and welcomed visiting professors: Dr. Sherrell J. Aston, The W.R.N. Lindsay Lecturer "Anatomy based facelift techniques" from New York; Dr. H. Steve Byrd, The Walter J. Peters Lecturer "Consistent, unchanging techniques I use in rhinoplasty" from Dallas Texas; Dr. Foad Nahai, The University of Toronto Visiting Professor "The role of EBM in aesthetic surgery" from Atlanta, Georgia and Dr. W. Grant Stevens as The University of Toronto Aesthetic Lecturer "Nonsurgical body contouring —

What works and what doesn't" from Marina Del Rey, California.

This symposium was chaired by Dr. Jamil Ahmad and co-chaired by Dr. Frank Lista and Dr. Tom Bell.

#### 1st KLS Martin Craniofacial Lectureship

Thanks to the generosity of KLS Martin, former Toronto alumnus Dr. Joe Gruss (University of

Washington, Seattle) gave the 2014 KLS Martin Craniofacial Lecture in pediatric craniofacial surgery in May 2014. In addition to this, we were honored to have Dr. Mark Urata, Head of the Division of Plastic Surgery at Children's Hospital Los Angeles give a craniofacial lecture on May 29, 2015. Mark is currently the director of Craniofacial and Pediatric Plastic Surgery at Cedars-Sinai Medical Center and co-director of the Cleft Team at Shriner's Hospital in Los Angeles. He specializes in complex craniofacial anomalies, including craniosynostosis, syndromic reconstruction and jaw deformities.

#### 1st UoT GTA Lecturership Series

I am delighted to announce the start of a new initiative that is called the UoT-GTA PRS Dinner Lecture Series. In an attempt to bring academic and community partners together in a combined social and educational setting, we have started a series of dinner lectures to be held approximately 4 times a year on subjects that have broad appeal to the PRS community. These evenings will be held centrally at The University Club and will take advantage of inviting well-known experts in the field to share their expertise in an informal and enjoyable setting. The first dinner lecture has been arranged for December 1st, 2014 with Dr. Jeffrey Kenkel, Professor and Vice Chairman of the Department of Plastic Surgery at the University of Texas Southwestern Medical Center at Dallas who spoke on "The Evolution in the Plastic Surgical Care of the Weight Loss Patient". The second dinner was held on March 30, 2015 with visiting speaker Dr. Jeffrey Janis, Executive Vice Chair and Professor of Plastic Surgery at the Ohio State University, Columbus, Ohio who spoke about "The Surgical Treatment of Migraine Headaches". The third talk for the academic year was held on May 11, 2015 with visiting speaker Dr. Elizabeth Hall-Findlay from Banff, Canada who gave a talk on "Aesthetics and Breast Surgery Planning".

#### 2015 Hoyle Campbell Visiting Professor

The Division of Plastic and Reconstructive Surgery shone brightly at the 31st Annual Hoyle Campbell Annual Research Day on Friday February 20, 2015 at the Peter Gilgan Centre for Research and Learning. We were exceptionally fortunate to have Dr. Susan E. Mackinnon, Shoenberg Professor, Plastic and Reconstructive Surgery Chief, Washington University School of Medicine in St. Louis, MO. Her talk on "Innovation in Nerve Surgery. Bench Top to Clinic" was quite inspiring and a wonderful highlight of the day. The residents had a wonderful time with her during their yoga session!

## 13th Annual Ralph T. Manktelow Hand and Microsurgery Lectureship

This year's Ralph T. Manktelow Hand Surgery Day was held on Friday October 17th, 2014. This year's Visiting Professor was Dr. Douglas Ross, Professor, Division of Plastic & Reconstructive Surgery, Western University, London, Ontario and Rebecca von der Heyde, PhD, OTR/L, CHT

Department Chair & Associate Professor of Occupational Therapy Concordia University, Mequon, Wisconsin.

Dr. Ross' keynote address was entitled, ""Challenges of Tendon Injury""

## 11th Annual Lindsay-Thomson Symposium in Paediatric Plastic Surgery

The Eleventh Annual Lindsay Thomson Day was held at the Peter Gilgan Research and Learning Tower on June 17th and former UoT graduate, Dr. Ken Wilson was this year's Vale Lecturer with 70 plus registrants. The symposium was designed to provide a snapshot of what is developing and going on in the world of Pediatric Plastic and Reconstructive Surgery and is unique in its multi-disciplinary nature with presentations from Occupational Therapy, Nursing, Interventional Radiology, Social Work, Physiotherapy, Genetics as well as division members. The gamut of topics included burn care in the future, cosmetic surgery in children, application of patient reported outcome measures in cleft surgery and social work issues of internationally adopted children with clefts. This symposium was established to honor the contributions of Dr. William K. Lindsay and Dr. Hugh. G. Thomson for their years of service in the field of Pediatric Plastic Surgery. Dr. Wilson is an Associate Professor in the Department of Surgery, Dalhousie University, Halifax and after graduating from UoT medical school in 1972, he completed a residency in Plastic Surgery in Halifax and then subsequently completed fellowships in Chicago, Melbourne and SickKids. He has been on staff in the division of Plastic Surgery at Dalhousie University for 32 years and has mentored many of the country's surgeons. Ken is a stalwart supporter of Operation Smile and has been a member since 1995, participating in more than 44 missions. He gave a terrific overview lecture, focusing on many aspects of Pediatric Plastic Surgery during his years in practice.

#### **Lifetime Achievement Award**

Ron Zuker: CSPS Lifetime Achievement Award was given to Dr. Ron Zuker of Toronto, Ontario. The Award presentation took place during the President's Banquet at the CSPS Annual Meeting, on the evening of Friday, June 27th, 2014 at the Westin Hotel in Montréal. This award honors members of the CSPS who have made outstanding contributions to the profession and to the Society. Dr. Zuker is one of the original pioneers of microsurgery. He is a founding member of the American Society of Reconstructive Microsurgery and the Group for Advancement of Microsurgery (GAM - Canada). He has had important leadership positions in our specialty's important societies including the American Academy of Pediatrics, the American Association of Plastic Surgeons, the American Association, the American Cleft-Craniofacial As-

sociation, the American Society for Reconstructive Microsurgery, the American Society of Peripheral Nerve, the American Society of Plastic Surgeons, the Congress of the International Microsurgery Society, the Canadian Society of Plastic Surgeons amongst many others, culminating with the Presidency of the International Society of Plastic Reconstructive and Aesthetic Surgery Congress in Vancouver 2011. His CV is rich with accolades, honors, peer-review papers and scientific presentations. He has been teaching residents and medical students in Plastic Surgery since 1978. He has taught fellows from all points of the globe. He has given lectures on 4 of the 5 major continents. He has well over 100 scientific peer review publications and book chapters. One of his most significant contributions has been his textbook entitled Principles and Practice of Pediatric Plastic Surgery (co-edited with Bruce Bauer and Mike Bentz) which has become the go-to book for Pediatric Plastic and Reconstructive Surgery and is heading for a 3rd edition any day now! He has acted as a great mentor for the latest generation of reconstructive microsurgeons and is generous in sharing his surgical secrets. His name is synonymous with excellence and innovation. In the arena of innovative reconstructive microsurgery, Ron has few equals. Dr. Ron Zuker has made significant innovations in the unique areas of conjoined twins, composite vascularized allotransplantation, free functioning muscle transfer, solid organ transplantation and global outreach. In the field of Plastic & Reconstructive Surgery, Ron is an icon and highly deserving of the Canadian Society Lifetime Achievement Award.



Cho Pang PhD, Senior Scientist, The Hospital for Sick Children was recognized for a lifetime of achievement and dedication to the Department of Surgery. Cho has been an active member of the Research Institute for 32 years and sat on the Department of Surgery Research Committee for 24 years. He has mentored dozens of surgeon-scientists during his time in the Division of Plastic and Reconstructive Surgery including 3 chairs and has been recognized by the American Society of Plastic Surgeons for his achievements.



#### **Graduation Gala Event**

The Division of Plastic and Reconstructive Surgery celebrated the successes of its graduating class of residents at the Windsor Arms Hotel on June 25th, 2015. This event has become a staple on the social calendar of the division and was a wonderful opportunity for recognition of the highlights of the past academic year. It was also a pleasure to meet the families of the graduating residents and see everyone out of scrubs for a change.

#### **Royal College Fellowships**

Homan Cheng successfully passed her RCPSC fellowship examination.

Paul Carter successfully passed his RCPSC fellowship examination.

Blake Murphy successfully passed his RCPSC fellowship examination

Sheikhan Al-hashmi successfully passed his 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 new 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.

I hope that you will take the opportunity to explore and see the new face of our division: 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

Dr. Marc De Perrot has led the development of the Surgical Pulmonary Hypertension over the last decade. He has built many aspects of this program, including recruitment of surgical fellows to train specifically for this procedure, development of an international reputation attracting observers from all over the world, a complementary research program in the lab with both basic and translational aspects, and important collaborations with pulmonary medicine and interventional radiology. This program received additional funding from the Ministry of Health, in recognition of its important position as a national resource. This program also attracted a large 5 year commitment for financial support from Bayer Inc, headquartered in Germany to continue to build this as a leading global program in Pulmonary Thromboendarterectomy.

The Division had a stellar year in regards to recognition of the quality of its teachers. Dr. Kazuhiro Yasufuku won an Individual Teaching Award from the Wightman-Berris Academy. Dr. Andrew Pierre won the Department of Surgery Tovee Award, also recognizing many years of commitment to teaching of surgery. Dr. Najib Safieddine, from Toronto East General Hospital, won the Dr. J.H. Fowler Excellence in Teaching Award from the Department of Family Medicine. Dr. Safieddine has also established the Department of Surgery Quality Improvement teaching curriculum for residents in surgical programs. Dr. Cypel won the George Armstrong Peters Prize for his success as a surgeon-scientist in the early phase of his career and also was awarded a Roscoe Reid Graham Scholarship to help fund that research. Dr. Gail Darling was appointed to a very important role within

Cancer Care Ontario as the Clinical Liaison Lead for lung cancer, advising not only on surgery but all aspects of lung cancer care, including screening, radiation, and systemic treatments.

Dr. Keshavjee had an incredible year with numerous organizations recognizing his contributions to Thoracic Surgery. He was appointed to the Council for the American Association for Thoracic Surgery (for the second time). He was recognized with honorary degrees from both Queen's and Ryerson Universities. Most importantly, he was appointed as an Officer of the Order of Canada.

Teaching awards were awarded to Dr. Andrew Pierre (GAIL E. DARLING AWARD FOR EXCELLENCE IN UNDERGRADUATE TEACHING) and Dr. Marcelo Cypel (ROBERT J. GINSBERG AWARD FOR EXCELLENCE IN POSTGRADUATE TEACHING). Dr. Jonathan Yeung won the F. GRIFFITH PEARSON AWARD FOR BEST RESIDENT/FELLOW TEACHER.

Another highly successful Toronto Thoracic Surgery Refresher Course was held in June 2015 and included the following Visiting Faculty: Dr. Milton Saute from Israel, Dr. Rob McKenna from Los Angeles, and Dr. Sean Grondin from Calgary.

The academic year concluded with Pearson Day, an annual celebration of clinical and laboratory research by trainees in our Division. The Pearson Day Visiting Professor was Dr. Yolonda Colson from Brigham and Women's Hospital in Boston. Dr. Biniam Kidane won the Award for Best Clinical Research paper and Dr. Luis Borja won the Best Basic Science Research Award.

#### 2015 Promotees at Splendido Restaurant





### Division of Urology Neil Fleshner, Chair

The Division of Urology has had a productive academic year. We currently span 27 geographic full time faculty as well as 3 full-time PhD scientists, spanned over 6 fully affiliated University-based hospitals. We train over 42 students including 23 residents and 19 fellows.

#### Recruitment

We had no new recruits in the Division of Urology after many recent years of active growth.

#### **Academic Promotion**

Drs. Jason Lee and Dean Elterman were appointed to Assistant Professor.

#### **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 5.5 million dollars:

Robert Hamilton Bharti Bapat
Girish Kulkarni Neil Fleshner
Michael Jewett Alexandre Zlotta
Andrew Matthew Robert Nam

#### **Resident/Fellow Awards**

Dr. Hanmu Yan was awarded the DR Wilson (best Resident Teacher across all surgical specialties) awards.

#### **Faculty Awards**

Dr. Laurence Klotz won the Harold O Warwick Prize from the Canadian Cancer Society and was awarded an Order of Canada. He was also elected as a Fellow of the Canadian Academy of Health Sciences. 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 and was re-appointed as the Love Chair at PMH.

Dr. Ethan Grober won the Wightman-Berris Academy Postgraduate award.

Dr. Jason Lee successfully completed his continuing appointment review.

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

#### **Visiting Professors**

Dr. Brian Lane (Michigan) was our Menkes Lecturer

Dr. Peter Albertsen (Connecticut) was our Robson Professor

Dr. Ballantyne Carter (Maryland) was our Colapinto Lecturer

Urology Update visitors included: Drs. Anthony Miller, Robert Uzzo, Samir Taneja, Laurent Milot, Mark Cain, Bude Burnett, Ann Gormley, Quentin Clemens and J Stuart Wolf

#### **Division Firsts**

Dr. Jason Lee performed the first in-site robotic renal auto-transplant.

A record three residents (Drs. Mitchell Goldenberg, Alaina Garbens & Keith Lawson) have entered the surgical scientist training program.

#### **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.

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. He is also supervising research fellowships with funding from the Society for Pediatric Urology and the AUA Foundation. He also served 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 Soci-

ety 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.

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 of T 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 11th 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, CPCRF, 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 7th Annual Uro-Oncology Dialogue meeting in Niagara on The Lake.

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 prolific in securing peer reviewed funding. 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. He was awarded the Langer prize at Gallie day.

Dr. Robert Hamilton continues his work on statins, SNP's and prostate cancer. He was an invited speaker throughout Canada . He is global leader for testicular cancer branch of the Movember Men's Health initiative

#### 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.

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. He has been extremely busy with the Green Light program.

#### 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 and successfully completed his CAR.

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.

#### **Robson Research Day Awards**

Dr. Robert Hamilton & Girish Kulkarni both received a Postgraduate *Clinical* Teaching Awards. In addition, Dr. Rob Nam received a Postgraduate *Surgical* Teaching Award. Again this

year, Dr. Ron Kodama was awarded the Undergraduate Teaching Award

Drs. Frank Penna, Aiden Noon & Jaimin Bhatt all won Outstanding Fellow Research awards.

Drs. Chris Wallis & Madhur Nayan tied for first place for Outstanding Resident Research award. For the second year in a row, Dr. Yonah Krakowsky was awarded the Patrick Harty Award for Excellence in Patient Care.

All of our PGY5's (Drs. Monica Farcas, Tyler Gray, Aziz Khambati and David Horovitz) were successful in completing their Royal College exams.

#### Miscellaneous Lectures



Ori Rotstein Lectureship in the IMS



**Thoracic Surgery Refresher** 



**Tovee lecture** 



SpineFest: Dr. Peul



 $\textbf{General Surgery Assembly:} \ \texttt{C} \ \texttt{Swallow}$ 



**Balfour Lecture** 



# Division of Vascular Surgery Thomas Forbes, Chair

General: The 2014/15 academic year was a busy year in the Division of Vascular Surgery, marked by change, renewed cohesiveness, and a transition in leadership. After a successful 11 year term, Dr. Thomas Lindsay stepped down as University Division Chair and continues as Division Head at UHN. Dr. Thomas Forbes began his term as Division Chair in September. In February, 25 vascular surgeons from 5 hospitals (University Health Network, Sunnybrook, St. Michael's, Trillium, Humber) came together for our first University Division strategic planning retreat. This was an unqualified success and resulted in a new collective energy of synergy and a shared vision of "United in a Tradition of Leadership, Discovery & Excellence". This vision, and its mission statements will drive the Division forward over the next 5-10 years and is what it will be measured against.

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 President, Dr. Graham Roche-Nagle is Chair of the Research Committee, Dr. Giuseppe Papia 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.

Retirement & Recruitment: Dr. Vern Campbell retired from St. Michael's Hospital after a long career that began at Toronto East General Hospital. We were pleased to recruit Dr. Elisa Greco to St. Michael's with a clinical expertise in advanced limb salvage techniques and hemodialysis access as well as training and interest in medical education. Dr. John Byrne was recruited to UHN as a Surgeon-Scientist and will join a multidisciplinary basic science research group that will lead to better understanding of the biology of aortic disease. Dr. Kerry Graybiel was recruited from McMaster University as a new clinical appointment at the Humber River Hospital. We were sad to see 3 faculty members move on this past summer. Dr. Jonathan Cardella was recruited to Yale University, Dr. Tony Moloney left St. Michael's to return to an academic position in Ireland and Dr. Leonard Tse left UHN to move to a community practice in Brampton.

*Promotions*: Dr. Christiane Werneck, vascular surgeon at Trillium Healthcare, was promoted to Associate Professor.

Education: The Vascular Surgery Residency Program underwent the internal review mandated by the Royal College with the introduction of the direct entry route to certification that began several years ago. Although the final report has not been filed yet, preliminary views of the program are very favorable. Our Program Director, Dr. George Oreopoulos, has instituted several innovative initiatives including interuniversity oral exams, PGY1 boot camp, and advances in competency based learning. Dr. Elisa Greco leads the Undergraduate Medical Education portfolio and

is revamping the curriculum. Dr. Mark Wheatcroft has taken over the Fellow's Director position. The Division is excited about offering a new fellowship in Advanced Aortic Surgery, which is a collaborative effort between the three academic hospitals and the Divisions of Vascular Surgery and Cardiac Surgery. It is a unique offering that is not replicated elsewhere.

Research: It was a productive year on the research and innovation side with faculty members participating in many aspects of research. Among others, Dr. Byrne leads the basic science initiatives at UHN, while Dr. Wheatcroft also collaborates in this area at St. Michael's. Both UHN, under Dr. Lindsay's leadership, and St. Michael's with Dr. Mohammed Al-Omran had very productive years in the areas of clinical research and epidemiology. Dr. Roche-Nagle continues his leadership in quality and best practices related research, with UHN and St. Michael's continuing to be the only non-US based hospitals participating in the Society for Vascular Surgery Vascular Quality Initiative. Imaging based research, specifically MR and peripheral vascular disease, continues to be a focus and strength of the Sunnybrook group led by Dr. Andrew Dueck.

Visiting Professors: Several surgeons visited us this year including Dr. Michael Moon from the University of Alberta and Dr. Tim Sarac from Yale who joined us for our City-Wide Grand Rounds. Other visitors included Dr. Giovanni Torsello from Munster, Germany and Dr. Thomas Hatsukami from the University of Washington. Dr. Ronald Dalman joined us as the 4th Annual K. Wayne Johnston Lecturer and gave two key note addresses at our annual Research Day. Dr. Dalman is the Chidester Professor of Surgery and Chief of Vascular Surgery at Stanford University.

Awards: Dr. Al Lossing received two major awards, the Squires-Hyland Trust James Waddell Mentoring Award from St. Michael's Hospital and the Ontario Telemedicine Network's Champion of Telemedicine Award. Ahmed Kayssi won the FitzGerald Academy Resident-Teacher Award from St. Michael's Hospital. Our Surgeon Scientist Training Program residents received several awards, Dr. Trisha Roy won the best paper presentation at the Winnipeg Symposium and Mohamed Hussain received research awards from PSI and CIHR. Patrick McVeigh, U of T MD/PhD student won the poster competition at the international Society for Vascular Surgery Meeting in Chicago, beating out 100 other participants.





The Hospital For Sick Children Christopher A. Caldarone, Surgeon-in-Chief

#### **Division Heads:**

Dr. Glen Van Arsdell Cardiovascular Surgery
Dr. Agostino Pierro General and Thoracic Surgery

Dr. James Drake Neurosurgery
Dr. Martin Gargan Orthopaedic Surgery

Dr. Christopher Forrest Plastic and Reconstructive Surgery

Dr. Martin Koyle 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 Drs. Martin Gargan and Mark Camp (Orthopaedic Surgery), Frank Papanikilalou (part-time) and Joana Dos Santos (Urology), and Kristen Davidge (Plastic and Reconstructive Surgery). Welcome! A search is underway for a new member of the Division of General and Thoracic Surgery.

#### **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. We wish Jim well!

#### **Promotions And Appointments:**

Drs. Armando Lorenzo and Walid Farhat (Urology) were promoted to Associate and Full Professors of Surgery, respectively. Drs. Sevan Hopyan and Andrew Howard (Orthopaedic Surgery) were promoted to Senior Scientist and Associate Professor, and Professor, respectively. Dr. J. Ted Gerstle (General and Thoracic Surgery) was appointed Associate Member of the Institute of Medical Science. Dr. Unni Narayanan (Orthopaedic Surgery) was appointed as the 2nd Vice President of the American Academy of



Cerebral Palsy and Developmental Medicine. Dr. Howard Clarke (Plastic and Reconstructive Surgery) was appointed as Head of the UofT Department of Surgery Promotions Committee. Dr. Priscilla Chiu (General and Thoracic Surgery) was appointed Chair of the Canadian Association of Paediatric Surgeons (CAPS) Program Committee in 2015. Dr. Howard M. Clarke was appointed President of the Canadian Society of Plastic Surgeons Dr. Walid Farhat was re-appointed as Associate Surgeon-in-Chief – Education. Dr. Darius Bägli (Urology) was re-appointed as Associate Surgeon-in-Chief – Clinical. Dr. Elise Heon was re-appointed as Associate-Surgeon-in-Chief-Research (Ophthalmology).

#### **Division Of Cardiovascular Surgery**

The Division of Cardiovascular Surgery continues to have a high profile in the international community of congenital heart disease. Dr. Ed Hickey presented novel patient care data at the plenary session of the American Association for Thoracic Surgery using NASA concepts of threat and error. This "flight plan" approach to each patient's care has captured the interest of a number of major centers. Dr. Osami Honjo had his clinical outcomes research presented at nearly all the significant societal meetings in the past year. Drs. Hickey and Honjo's clinical contributions have markedly enabled greater researc

productivity from the rest of the Division. Dr. John Coles and his group secured approximately one million dollars of research funding over the course of the last two years, from various sources including commercial opportunities. In 2014 his work was published in Nature Communications. Dr. Chris Caldarone became Surgeon-in-Chief at SickKids and continues his CIHR-funded research on pulmonary vein stenosis. Dr. Glen Van Arsdell was the Marc De Leval Visiting Professor at the Great Ormond Street Hospital for Sick Children. In partnership with the McMaster Population Health Research Institute, he initiated an international, prospective, 15-20 site, 3000 patient study on tetralogy of Fallot. This is the first congenital cardiac surgical study of that scope.

#### **Division Of General And Thoracic Surgery**

Dr. Georges Azzie continues to promote development of a surgical curriculum at the School of Medicine of the University of Botswana. Dr. Priscilla Chiu is on the organizing committee of the 2015 International Congenital Diaphragmatic Hernia (CDH) Workshop and continues to collaborate internationally on CDH research. Dr Annie Fecteau is conducting clinical research on consent and is developing a transitional program for children with congenital surgical anomalies. Dr. J. Ted Gerstle has been awarded funding to start a new research program on the possible roles of MR-guided High Intensity Focused Ultrasound in the treatment of pediatric tumours and in utero malformations. Dr. Sharifa Himidan continues work on international initiatives led by the UofT 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 North Eastern University. Dr. Jack Langer serves as the Past-President of the Canadian Association of Paediatric Surgeons (CAPS). 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. Paul 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. Agostino Pierro received from her Majesty the Queen the prestigious Officer of the Most Excellent Order of the British Empire (OBE) for his contribution to medicine and research. He continues to be the Chairman of the European Pediatric Surgery Association - EUPSA Network.

#### **Division Of Neurosurgery**

The Division received numerous funding awards totaling approximately \$7,000,000 supporting a variety of projects. There have been 70 new publications this year alone and our staff have been invited and presented at over 52 venues and associations around the globe. We trained five fellows and 8 residents. Dr. James Rutka was honored with the prestigious Order of Canada, Officer (O.C.). He was awarded an Honourary Degree, PhD, from the Faculty of Medicine, Bahcesehir University in Istanbul Turkey, and was co-recipient of the 2015 Robert L. Noble Prize. He maintains his role as U of T Departmental Chairman of Surgery, and Editor of the Journal of Neurosurgery. Dr. James Drake, with his CIGITI colleagues recently were awarded first prize in the Robotics Challenge at the Hamlyn Medical Robotics Symposium, London, UK for project titled "Design and Evaluation of a Concentric Tube Robot for Minimally-Invasive Endoscopic Paediatric Neurosurgery"; V. Bodani, H. Azimian, T. Looi, J.M. Drake. He heads a multidisciplinary group within the MR-guided High Intensity Focused Ultrasound project with CIGITI in the treatment of bone tumors. They were the first in North America to treat a teenage boy with an osteoid osteoma. Dr. Peter Dirks had numerous invitations around the world to present his work on Moya Moya and Medulloblastoma among other projects. Dr. Abhaya Kulkarni has been heavily involved in the success of the Hydrocephalus Clinical Research Network (HCRN) leading the group in two projects focused on Endoscopic Third Ventriculoscopy (ETV) vs. Shunts and ETV treatments. Drs. Drake and Kulkarni continue to be active members of the HCRN embarking on a North American clinical trial focusing on the entry site of shunts for first time pediatric patients with hydrocephalus. Dr. Michael Taylor received the William E. Rawls Prize, awarded to a researcher who has made exceptional contributions to research on cancer control and, along with Dr. Rutka, was the recipient of the 2015 Canadian Cancer Society Prize. The Bruce E. Hendrick Lectureship took place at SickKids on May 22, 2015, with Professor Mark Souweidane, Weill Cornell Medical College and Memorial Sloan-Kettering Cancer Center as the guest lecturer.

#### **Division Of Orthopaedic Surgery**

Two new members were welcomed; Dr. Martin Gargan (Division Head), from Bristol, UK in September 2014 with interests in paediatric orthopaedics and trauma, specifically surgery for hip dysplasia and cerebral palsy, and Dr. Mark Camp, whose main interests are in cerebral palsy, spine, trauma, surgical ethics and quality improvement. Dr. Simon Kelley received the Laidlaw Manuscript Award for Best Basic Science manuscript and oral presentation by a graduate student and the McMurrich Research Award-2nd Prize for the best manuscript and oral presentation of scientific research performed as part of a PhD at Gallie Day. Dr. James Wright received a Lifetime Achievement Award from Sick-Kids in recognition of his efforts on behalf of the Herbie Fund in addition to receiving the 2014 Herbie Fund Doctor of the Year Award. He completed his term as Surgeon in Chief and Chief of Perioperative Services on December 31, 2015. This year's Robert B. Salter Visiting Professor was Dr. Benjamin Joseph, a paediatric orthopaedic surgeon at Medcare Orthopaedic and Spine Hospital in Dubai. We hosted Dr. David Roye, Director of Paediatric Orthopaedics at Morgan Stanley Children's Hospital and an attending orthopaedic surgeon at NY-Presbyterian Hospital, as our Mercer Rang Visiting Professor. The Division hosted many visiting observers from countries such as Iran, New Zealand, Japan, UK, USA, boasts four faculty members who hold CIHR-funding as primary investigators making them the highest proportion of CIHR-funded orthopaedic surgeons in any one division in the country, presented 94 lectures and other presentations, published 51 papers and hold 18 grants. The Division continues to build the Bone Health Centre which focuses on the care of children with musculoskeletal conditions requiring multidisciplinary care and collaborative research. This year the Centre received \$250K in funding and was awarded Seed Grants to support various research projects related to children's bone health.

#### **Division Of Plastic And Reconstructive Surgery**

It has been a terrific academic year for the Division of Plastic and Reconstructive Surgery, the largest group of full-time pediatric plastic surgeons in North America with a focus on transitions and innovation. Dr Ronald Zuker officially stepped down from active clinical practice in June 2015 to assume Professor Emeritus status and will transition to a new role as the Director of Alumni Relations for the University Division and will continue his work with SickKids International (SKI), global outreach and mentoring staff and fellows. The third and latest edition of his book, Principles and Practice of Pediatric Plastic Surgery with co-editors Michael Bentz and Bruce Bauer will be released in 2016. Senior Surgeon Scientist, Dr. Cho Y. Pang, also officially retired from active scientific research and assumed Professor Emeritus status at the end of March 2015. Dr. Kristen Davidge joined the Division as an Assistant Professor and Surgeon-Scientist-track in the SickKids Research Institute. She will develop her practice in the area of obstetrical brachial plexus palsy, peripheral nerve, upper extremity and microsurgery. Dr. Davidge had a very successful residency culminating in winning the Shafie S. Fazel Outstanding Resident Surgeon and Investigator Award. She graduated from the Surgeon Scientist Program successfully obtaining her Master of Science degree in Clinical Epidemiology at the UofT Department of Health Policy, Management, and Evaluation. The third Hugh G. Thomson Award was awarded to residents Drs. Blake Murphy and Kathryn Isaac. This award was established and funded by the Division members of SickKids and acknowledges Dr. Thomson's values of collegiality, collaboration and simply being a good human being. The Eleventh Annual Lindsay Thomson Day was held at the Peter Gilgan Research and Learning Tower on June 17th and former U of T graduate, Dr. Ken Wilson, Associate Professor in the Department of Surgery, Dalhousie University, Halifax was this year's Vale Lecturer. This symposium was established to honor the contributions of Drs. William K. Lindsay and Hugh. G. Thomson for their years of service in the field of Pediatric Plastic Surgery. Under the supervision of Dr. Joel Fish, the SickKids Burn Program has developed a Burn Laser Program focussed specifi-



cally on scar management following pediatric burns. This is the first of its kind in Canada. Dr. Fish recently joined the membership of the American Burn Association Certification Committee. This is a very prestigious appointment and Dr. Fish's focus is to develop standard metrics for verification of pediatric burn units. Dr. Karen Wong continues to reinforce the SickKids focus on patient- reported outcome measures in the world of Pediatric Plastic Surgery. CLEFT-Q and FACE-Q are being developed as quality of life measures with the emphasis on the value of health care being dependent on what is important to the patient. Her work on the CLEFT-Q has been incorporated into the International Consortium on Health Outcomes Measurement (ICHOM) data set on cleft outcomes. In association with Great Ormond Street (London), Erasmus Children's Hospital (Netherlands) and Boston Children's Hospital, Dr. Christopher Forrest is developing a standard data outcomes set for the assessment of patients with craniofacial microsomia. This initiative is being organized through the International Consortium on Health Outcomes Measurement (ICHOM) and will focus on developing outcome metrics that can be benchmarked across institutions. Under the supervision of Drs. Christopher Forrest and James Drake, PhD candidate surgeon-scientist trainee, Dr. Dale Podolsky has developed a cleft palate surgical simulator that is unique and has attracted international attention. This initiative was developed through CIGITI and is tied in with the development of a robotic approach to cleft and craniofacial surgery. Drs. Greg Borschel and Ron Zuker were the focus of significant press attention with the development of an innovative approach to re-innervating the insensate cornea. This new surgical paradigm was developed in conjunction with Dr. Asim Ali

(Ophthalmology) and has been successfully performed for the first time in the world at SickKids.

#### **Division Of Urology**

Dr. Joana Dos Santos, a Brazilian-trained pediatrician, is completing the first "medical pediatric urology" fellowship in Canada and will join us as a full-time faculty member this summer. We also welcomed Dr. Frank Papanikilalou as our first part-time associate. Dr. Papanikilalou completed his residency and fellowship at U of T and SickKids and is in active practice at Credit Valley. Dr. Darius Bägli's role as Associate Surgeon-In-Chief (Clinical)

## Division of Cardiac Surgery

Dr. C.A. Caldarone Professor
Dr. J. Coles Professor

Dr. E. Hickey Assistant Professor
Dr. O. Honjo Assistant Professor
Dr. G.S. Van Arsdell Professor (Division Head)

at SickKids continues to expand, as does his role in directing resident research within the UofT 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. Walid Farhat successfully ran his 8th 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). Dr. Martin Koyle commenced a highly competitive research-based Master's of Science in Quality Improvement and Patient Safety at the Institute of Health Policy, Management and Evaluation (IHPME) at the U of T and was the invited guest lecturer to the urological Society of Australia and New Zealand (USANZ) in Adelaide. Dr. David Bloom was the second Robert Jeffs Visiting Professor in Pediatric Urology at SickKids and UofT. The Division attracted its top fellowship choices for both the American Board of Urology accredited and the international two-year spots, and also attracted new clinical research physician trainees who wish to augment their experience. As we welcome our new trainees and faculty, we recognize our three superb graduates of the fellowship, Drs. Paul Bowlin, Fahad Alyami, and Naif Al Qarni, who elevated this Division and will be assets to their new medical communities. We were also deeply saddened by the loss of our colleague and long-time SickKids and U of T surgeon, Dr. Gordon McLorie who passed away in January 2015.

#### **Education:**

The Department of Surgery continues to have an active education program training 46 clinical fellows and 111 residents originating from 22 countries worldwide.

#### Research\*:

Of 42 surgeons, 25 have a total of 107 funded research programs. The Department is engaged in a wide variety of clinical and basic research supervising 31 research fellows, 30 Masters students, and 9 PhD students.

\*Data based on staff with Research Institute appointments and SickKids' administered grants.

#### **Publications**

Al-Jughiman MK, Al-Omair MA, Van Arsdell GS, Morell VO, Jacobs ML. D-Transposition of the Great Arteries with Ventricular Septal Defect and Left Ventricular Outflow Tract Obstruction (D-TGA/VSD/LVOTO): A Survey of Perceptions, Preferences, and Experience. Pediatric Cardiology. 2015 Jun; 36(5): 896-905.

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Fouilloux V, Davey L, Van Arsdell GS, Honjo O. Foam formation and acute air emboli with the maquet paediatric Quadrox I: a word of caution. Interactive Cardiovascular and Thoracic Surgery. 2014 Jul; 19(1): 163-5.

Grotenhuis HB, Yim D, Honjo O, Dragulescu A. Anomalous single coronary artery from the pulmonary artery in a neonate. European Heart Journal - Cardiovascular Imaging. 2015 Mar 29.



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Hickey EJ, Nosikova Y, Pham-Hung E, Gritti M, Schwartz S, Caldarone CA, Redington A, Van Arsdell GS. National Aeronautics and Space Administration "threat and error" model applied to pediatric cardiac surgery: error cycles precede 85% of patient deaths. Journal of Thoracic and Cardiovascular Surgery. 2015 Feb; 149(2): 496-505.

Hickey EJ, Van Arsdell GS, Laussen PC. Failure to rescue, failure to perceive in pediatric cardiac surgery: lessons learned from aviation. In: Barach, Jacobs, Laussen, Lipshultz (eds), Pediatric and Congenital Cardiac Care: outcome analysis, quality improvement and patient safety. 2014 Oct. Springer-Verlag.

Honjo O, Rao V. Implantation of HeartWare left ventricular assist device in pediatric population. Operative Techniques in Thoracic and Cardiovascular Surgery. 2014 Jul.

Kalaniti K, Lo Rito M, Hickey EJ, Sivarajan VB. Successful pulmonary embolectomy of a saddle pulmonary thromboembolism in a preterm neonate. Pediatrics. 2015 May; 135(5): e1317-20.

Kanazawa K, Yokouchi H, Wang X, Ishida T, Fujita Y, Fujiuchi S, Harada T, Harada M, Takamura K, Oizumi S, Kinoshita I, Katsuura Y, Honjo O, Kojima T, Dosaka-Akita H, Isobe H, Munakata M, Nishimura. Phase II trial of carboplatin and pemetrexed as first-line chemotherapy for non-squamous non-small cell lung cancer, and correlation between the efficacy/toxicity and genetic polymorphisms associated with pemetrexed metabolism: Hokkaido Lung Cancer Clinical Study Group Trial (HOT) 0902. Cancer Chemotherapy and Pharmacology. 2014 Dec; 74(6): 1149-57.

Karamlou T, Overman D, Hill KD, Wallace A, Pasquali SK, Jacobs JP, Jacobs ML, Caldarone CA. Stage 1 hybrid palliation for hypoplastic left heart syndrome--assessment of contemporary patterns of use: an analysis of The Society of Thoracic Surgeons Congenital Heart Surgery Database. J Thorac Cardiovasc Surg. 2015 Jan 1; 149(1): 195-201.

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Lo Rito M, Honjo O, Caldarone CA. Surgical Consideration in Pulmonary Vein Anomalies. In: Sabiston and Spencer Surgery of the Chest 2015. 2015.

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#### **Invited Visits**

Caldarone, Christopher Anthony: American College of Cardiology 64th Annual Scientific Session, San Diego, California, United States, 14-16 Mar 2015. 1) Panelist: Head to Head: Surgery vs. Intervention. 2) Scientific Session: Tricuspid Valve Size and Other Considerations for Two Ventricle Repair. 3) Invited Speaker: Tricuspid Valve Size and Other Considerations for Two Ventricle Repair. 4) Panelist: The Fontan: Success or Failure. 5) Presenter: Trends in Right Ventricular Dysfunction and Tricuspid Regurgitation After Single Ventricle Palliation of Hypoplastic Left Heart Syndrome and Their Differential Impact on Survival.

Caldarone, Christopher Anthony: Children's Hospital of Philadelphia (CHOP), Scottsdale, Arizona, United States, 12-13 Feb 2015. 1)Lecturer: Pulmonary Vein Stenosis: From Understanding Pathophysiology to Effective Treatment. 2) Lecturer: Management Strategy: Staged Approach, Toronto Experience. 3) Oxford Style Debate: Highlighted Anomalies - The Great Debates: Tetralogy of Fallot with Pulmonary Atresia.

Caldarone, Christopher Anthony: The Society of Thoracic Surgeons, San Diego, California, United States, 25 Jan 2015.

1) Moderator: ACHD Acquired and Congenital Heart Surgery Symposium: Challenges and Management of the Aorta in Adults with Congenital Heart Disease. 2) Invited Speaker: Tough Problem 5: Infant with recurrent pulmonary vein stenosis after a suture less repair of post-repair pulmonary vein stenosis.

Hickey, Edward: London, London, City of, United Kingdom, 20 Sep 2014. Interviewed on promotional video: Threat and error in high-stakes medicine.

Hickey, Edward: Pediatric Cardiac Intensive Care Society, Miami, Florida, United States, 12 Dec 2014. Invited Speaker: What NASA can teach us about managing threat and error after Cardiac Surgery.

Hickey, Edward: Congenital Heart Surgeons Society data coordinators meeting, Chicago, Illinois, United States, 21 Oct 2014. Invited Lecturer: Anomalous aortic origin of the coronary arteries.

Hickey, Edward: European Association of Cardiothoracic Surgery, Milan, Milano, Italy, 14-16 Oct 2014. Invited Speaker: 1) Experience with the stented pulmonary valve. 2) Should we (can we) delay intervention.

Hickey, Edward: Risky Business, London, London, City of, United Kingdom, 18 Sep 2014. Invited Speaker: Landing the operation.

Hickey, Edward: Canadian Cardiovascular Congress, Vancouver, British Columbia, Canada, Oct 2014. Presenter:

1) The "Mustard Dilemma": urgent need for a National Registry to track complex congenital heart disease patients.

2) Aviation "threat and error" model in congenital cardiovascular surgery: the dangerous consequences of ineffectively rescued intra-operative errors. 3) Valve-sparing tetralogy of Fallot repair may improve RV geometry with little cost.

Hickey, Edward: American Heart Association Scientific Sessions, Chicago, Illinois, United States, Nov 2014. Presenter: 1) NASA model of "threat and error" in paediatric cardiac surgery: death typically results from cycles of error that originate in the operating room and are amplified by additional error in intensive care. 2) Tetralogy of Fallot with hypo plastic branch pulmonary arteries: aggressive patch augmentation improves short-term geometry bu increases risk of late re-intervention.

Hickey, Edward: Congenital Heart Surgeons' Society annual meeting, Chicago, Illinois, United States, Oct 2014. Presenter: 50 Years of Mustard repairs: the Mustard Dilemma.

Van Arsdell, Glen Scott: Great Ormond Street Hospital, London, City of, United Kingdom, 6-8 May 2015. Visiting Professor: 1) Is your congenital surgeon causing heart failure? 2) HLHS: is there a glass ceiling. 3) Data & Medical error: Is it a cause for strength?



Van Arsdell, Glen Scott: Turkish Society for Cardiovascular Surgery, Antalya, Turkey, 31 Oct - 2 Nov 2014. Invited Lecturer: 1) Double outlet right ventricle and transposition of the great artereis, ventricular septal defect and pulmonary stenosis. 2) Pulmonary vein stenosis after total pulmonary venous return repair. 3) Error in the treatment of congenital heart defects.

Van Arsdell, Glen Scott: Aarhus University Hospital, Århus, Denmark, 5 Sep 2014. Invited Lecturer: 1) Tetralogy of Fallot: Does the Surgeon Matter? 2) Mortality: Is it the Patient or Medical Error?

Van Arsdell, Glen Scott: American Association for Thoracic Surgery, Seattle, Washington, United States, 25 Apr 2015. Presenter: Impact of a 3D model on surgical planning.

Van Arsdell, Glen Scott: 8th International Conference Neonatal & Childhood Pulmonary Vascular Disease, San Francisco, California, United States, 28 Mar 2015. Invited Speaker: Surgical Interventions for Acute Pulmonary Hypertension.

Van Arsdell, Glen Scott: Society of Thoracic Surgeons, San Diego, California, United States, 25 Jan 2015. Presenter: Tough Problem 3: Infant on a ventilator, blood type O, with hypoplastic left heart syndrome after Norwood stage I with diminished ventricular function and severe tricuspid regurgitation.

Van Arsdell, Glen Scott: American Heart Association, Chicago, Illinois, United States, 18-19 Nov 2014. Presenter: 1) Preservation strategy improves late outcomes in Tetralogy of Fallot: An Anatomical Equivalency study. 2) Is the Rastelli procedure falsely maligned?

#### **Research and Investigations**

A personalized approach to crrection of genetic heart defects. Ontario Institute for Regenerative Medicine(OIRM). Coles J. (\$75,000.00, 2014 - 2015).

Clinical assessment of thrombosis in children after heart surgery: The CATCH study. Canadian Institute of Health Research. Van Arsdell GS. (\$302,866.00 2014-2015).

Myofilament Mechanics in Hypertrophic Cardiomyopathy. *The Physicians' Services Incorporated (PSI) Foundation.* Caldarone C, Backx P. (\$19,600.00 2014-2015)

Pulmonary Vein Stenosis: Focus on Upstream Vasculopathy. Canadian Institute of Health Research. Caldarone C. (\$210,000.00 2014 - 2017).

Rescue of disrupted mechanotransduction as a new therapeutic strategy in human dilated cardiomyopathy. *Heart & Stroke Foundation of Ontario. Coles J.* (\$253,071.00, 2014 - 2017).

Understanding Right Ventricle Physiology of Tetralogy of Fallot. Children's Heart Foundation (CHF). Caldarone C. (2014 - 2015).

#### **Honours and Awards**

Hickey, Edward: Highest scoring Canadian abstract at ACC Scientific Sessions 2015, American College of Cardiology. Mar 2015.

Coles, John: Recipient of Blueline Biosciences Research Award 2015. 10 selected from more than 150 programs across Cananda. 2015.

Coles, John: MaRS Innovation-Iricor Research Consortium Award. ILK as a dual cardiac and cancer tartget. 2015

## **Division of General Sugery**

Dr. G.R. Azzie	Associate Professor
Dr. P.P.L. 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

#### **Publications**

Abdi E, Bouri M, Himidan S, Burdet E, Bleuler H. Third Arm Manipulation for Surgical Applications: An Experimental Study. In: New Trends in Medical and Service Robots: Challenges and Solutions. 2015. Switzerland: Springer.

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#### **Invited Visits**

Azzie, Georges R: American College of Surgeons, San Francisco, California, United States, 26 Oct 2014. Invited Speaker: Forum on Humanitarian Surgery.

Azzie, Georges R: Georgetown University Hospital, DC, Washington, United States, 18 May 2015. Invited Speaker: Perspective on Global Surgery and International Health.

Gerstle, Justin Theodore: Hamad Medical Corporation, Doha, Ad Dawhah, Qatar, 10 Nov 2014. Invited Speaker: Why should Qatar have a Pediatric Surgical and Imaging Innovation Institute.

Himidan, Sharifa: Canadian Neonatal Network, Niagara Falls, Ontario, Canada, 10 Feb 2015. Presenter: 2014 CAPS-Net Report Presentation of the Annual Report of the Canadian Pediatric Surgery Network.

Langer, Jacob Charles: Pull-Through Network National Conference, Phoenix, Arizona, United States, 25 Jul 2014. Invited Speaker: Hirschsprung disease: an overview.

Langer, Jacob Charles: Canadian Association of Paediatric Surgeons, Montreal, Quebec, Canada, 19 Sep 2014. Invited Speaker: Presidential address.

Langer, Jacob Charles: Beth Tikveh Congregation, Toronto, Ontario, Canada, 7 Oct 2014. Invited Speaker: Ethical issues around the separation of conjoined twins.

Langer, Jacob Charles: Pediatric Colorectal, Motility and Pelvic Reconstruction Conference, Columbus, Ohio, United States, 12 Nov 2014. Invited Speaker: 1) Management of the newborn with an anorectal malformation. 2) Surgical management of male ARM patients. 3) Problem cases and reoperations. 4) Medical management of inflammatory bowel disease. 5) Inflammatory bowel disease: surgical concerns. 6) Hirschsprung disease: diagnosis, medical and surgical treatment. 7) Management of the child with chronic intestinal pseudo-obstruction. 8) Problematic Hirschsprung disease.

Langer, Jacob Charles: International Symposium on Endoscopic Surgery in Infants and Chldren, Vail, Colorado, United States, 22 Jan 2015. Invited Speaker: 1) Surgical innovation: past, present and future. 2) Update on the surgical treatment of inflammatory bowel disease.

Pierro, Agostino: Indiana University Department of Surgery, Indianapolis, Indiana, United States, 6 May 2015. Visiting Professor: Necrotizing Enterocolitis: new perspectives from experimental and clinical studies Jay L. Grosfeld Lecture.

Wales, Paul: American Society of Parenteral and Enteral Nutrition, Long Beach, California, United States, 14 Feb 2015. Invited Lecturer: Soy/MCT/Olive/Fish IVFE and the Pediatric Patient: The Canadian Experience.

Wales, Paul: Stollery Children's Hospital, University of Alberta, Edmonton, Alberta, Canada, 11 May 2015. Distinguished Speaker: Intestinal Failure Management and the Rold of SMOFlipid.

#### **Research and Investigations**

Advancing paediatric surgical techniques and childhood nutrition research by utilizing Isotope-Ratio Mass Spectrometry. Canadian Foundation for Innovation, John R. Evans Leaders Fund. Pierro A, Pencharz P, Post M. (\$269,340.00 CAD, 2014 - 2019).

Advancing paediatric surgical techniques and childhood nutrition research by utilizing Isotope-Ratio Mass Spectrometry. Ontario Ministry of Research and Innovation (ON), Ontario Research Fund -Research Infrastructure (ORF-RI). Pierro A, Pencharz P, Post M. (\$269,340.00 CAD, 2014 - 2019).

Effectiveness of MRI-guided high intensity focused ultrasound to ablate/occulde blood vessels in rabbit placenta and specific localized organs in rabbit fetuses. *Hospital for Sick Children. Drake J, Piorkowska K, Waspe A, Gerstle JT.* (\$10,000.00 CAD, 2014 - 2015).

Magnetic Resonance-guided High Intensity Focused Ultrasound for the Treatment of High Risk Neuroblastoma. Solving Kids Cancer. Gerstle T, Drake J, Waspe A, Looi T, Amaral J, Temple M, Irwin M, Baruchel S, Malkin D, David E, Pichardo S. (\$246,880.00 CAD, 2015 - 2018).

Stereo Vision Database and Evaluation for Image Guided Surgery. The Hospital for Sick Children, Perioperative Services. Himidan S, Wildes R, Jasiobedski P, Pierro A. (\$9,800.00 CAD, 2014 - 2015).

The Effect of Music Exposure on Psychological and Physiological Functioning in Children Undergoing Elective Surgery: A Randomized Controlled Trial. *PSI Foundation*. *Himidan S*. (\$142,695.00 CAD, 2015 - 2017).

The Optimal Parenteral Lipid To Ensure Healthy Outcomes In Pretern Neonates. Canadian Institutes of Health Research (CIHR). Turner JM, Wales PW, Field C, Willing B, Mager D, SauveY. (\$612,070.00 CAD, 2014 - 2018).

Tool-Tip Force and Torque Sensing for MAS Instruments. *The Hospital for Sick Children*. Wee J, Drake J, Gerstle JT. (\$9,390.00 CAD, 2015 - 2016).

#### **Honours and Awards**

Gerstle, Justin Theodore: Chief Surgical Residents' Award for the Best Teacher, The Hospital for Sick Children, General Surgery, Dept of Surgery, Faculty of Medicine, Canada. 2014.

Himidan, Sharifa: Special Acknowledgement Residents Teaching Award, University of Toronto, Dept of Surgery, Faculty of Medicine, Canada. Award for Highest Teaching Evaluation Scores in Resident Teaching. 2013 - 2014.

Langer, Jacob Charles: "Toronto's 30 Best Doctors", Toronto Life Magazine, Canada. 2014.

Pierro, Agostino: Officer of the Most Excellent Order of the British Empire (OBE), Her Majesty the Queen and the Government of the United Kingdom, United Kingdom. Feb 2015.



Wales, Paul: The Stanley J. Dudrick Research Scholar Award, American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.), Silverspring, Maryland, United States. Jun 2015.

### 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, Burrell K, Buczkowicz P, Remke M, Golbourn B, Chornenkyy Y, Gajadhar A, Fernandez NA, Clarke ID, Barszczyk MS, Pajovic S, Ternamian C, Head R, Sabha N, Sobol RW, Taylor MD, Rutka JT, Jones C, Dirks PB, Zadeh G, Hawkins C. ATM Regulates 3-Methylpurine-DNA Glycosylase and Promotes Therapeutic Resistance to Alkylating Agents. Cancer Discov. 2014. 4(10): 1198-213.

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Balogun, JA, Halliday, W, Bouffet, E, Kulkarni, AV. Spinal clear cell meningioma in a 3-year-old: A case report. Pediatr Neurosurg. 2014 Nov; 49(5): 311-315.

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Beier AD, Rutka JT. Hemispherectomy. In: Albright L, Pollock IF, Adelson D (eds), Principles and Practice of Pediatric Neurosurgery. 2014. New York: Thieme Medical Publishers. 985-993.

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Wilson JR, Davis AM, Kulkarni AV, Kiss A, Frankowski RF, Grossman RG, Fehlings MG. Defining age-related differences in outcome after traumatic spinal cord injury: Analysis of a combined, multicenter dataset. Spine Journal. 2014 Oct; 14(7): 1192-1198.

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#### **Invited Visits**

Dirks, Peter Benjamin: ASPN, Kona, Hawaii, United States, 26 Jan 2015. Invited Lecturer: Surgical Decision Making in the Genome Era.



Dirks, Peter Benjamin: CSHL Banbury Seminar, Cold Harbor, New York, United States, 9 Aug 2014. Invited Lecturer: Defining and Targeting the Brain Tumor Stem Cell Hierarchy.

Dirks, Peter Benjamin: European Association of Neurosurgical Societies Meeting, Prague, Czech Republic, 15 Oct 2014. Invited Lecturer: Pediatric Moya Moya Disease: When and How.

Dirks, Peter Benjamin: Helmholtz Zentrum Munich., Munich, Germany, 26 Feb 2015. Invited Lecturer: Lineage Tracing Brain Cancer Hierarchies.

Dirks, Peter Benjamin: International Conference on Brain Tumor Research and Therapy, Lake Tahoe, California, United States, 21 Jul 2014. Invited Lecturer: Single cell derived clonal analysis of human glioblastoma links functional and genomic heterogeneity.

Dirks, Peter Benjamin: MD Anderson Cancer Center, Houston, Texas, United States, 6 Jan 2015. Invited Lecturer: The Brain Cancer Stem Cell Matrix John Blaffer Lecture Series.

Dirks, Peter Benjamin: Medulloblastoma in the Mountains, Lake Tahoe, California, United States, 9 Feb 2015. Invited Lecturer: Clonal tracking medulloblastoma origins and maintenance.

Dirks, Peter Benjamin: Oncology at the Limits Symposium, Amsterdam, Netherlands, 12 Feb 2015. Invited Lecturer: Stem Cells and the Molecular Biology of Paediatric Brain Tumors.

Dirks, Peter Benjamin: Society of Neuro-Oncology, Miami, Florida, United States, 15 Nov 2014. Invited Lecturer: Lineage Tracing the Roots of Brain Tumor Propagation.

Dirks, Peter Benjamin: Volkswagen Foundation: A Symposium on Cancer Stem Cells, Hannover, Germany, 17 Oct 2014. Invited Lecturer: Lineage Tracing Sox2+ cells in Medulloblastoma.

Drake, James M: Earl Glenwood Coulson Research Day Agenda, Toronto, Ontario, Canada, 27 Aug 2014. Invited Speaker: The Program of Image Guided Innovation and Therapeutic Intervention - A "Sandbox" where everyone can play.

Drake, James M: Hamlyn Symposium on Medical Robotics, London, London, City of, United Kingdom, 21 Jun 2015. Invited Speaker: Robotic Applications in Pediatric Neurosurgery.

Kulkarni, Abhaya V: Canadian Pediatric Neurosurgery Study Group, Banff, Alberta, Canada, Feb 2015. Invited Lecturer: Hydrocephalus update.

Kulkarni, Abhaya V: First ISPN-ESPN African Paediatric Neurosurgery Course, University of Stellenbosch, Western Cape, South Africa, Apr 2015. Visiting Professor: 1) Hydrocephalus update. 2) Endoscopic third ventriculostomy with choroid plexus cauterization. 3) Management of craniopharyngiomas.

Kulkarni, Abhaya V: International Conference on Hydrocephalus and CSF Disorders (HYDROCEPHALUS 2014), Bristol, City of, United Kingdom, Sep 2014. Invited Lecturer: Collaborative, international studies in neuro-endoscopy: lessons learned.

Kulkarni, Abhaya V: International Federation of Neuroendoscopy & Indian Society for Neuroendoscopy, Bangalore, Karnataka, India, Jun 2015. Invited Lecturer: 1) Endoscopic third ventriculostomy: Indications, Technique, and Outcome. 2) Infant Hydrocephalus: Management options.

Kulkarni, Abhaya V: National Institute of Mental Health & Neuroscience, Bangalore, Karnataka, India, Jun 2015. Visiting Professor: Lessons learned from international collaborative studies in hydrocephalus.

Rutka, James T: . 7th Annual Dr. Kris Kumar Lecture. Saskatchewan Neurosurgery Society, Regina, Saskatchewan, Canada, 12-13 Sep 2014. 1) Visiting Professor: Nerosurgical Management of Epilepsy: Innovations Impacting on Seizure Outcomes. 2) Visiting Professor: Advances in Neurosurgical Oncology: What you need to know.

Rutka, James T: 14th Asian Australasian Congress of Neurological Surgeons, Jeju Island, Korea, Democratic People's Republic Of, 17 Apr 2015. Invited Speaker: 1/)Neurosurgeon: Scientist Pathway in Pediatric Neurosurgery. 2) Neurosurgical Oncology: A Paradigm Shift in Patient Care.

Rutka, James T: 2015 Henry Ford Brain Tumor Symposium., Detroit, Michigan, United States, 24 Apr 2015. Invited Lecturer: What Mark Rosenbaum Taught Me: An Odyssey in Brain Tumour Research.

Rutka, James T: CNS, Boston, Massachusetts, United States, 19 Oct 2014. Invited Lecturer: 1) Negotiation Tactics from the Experts Getting the Best Deal (Hospital Negotiations). 2) Navigating a Neurosurgical Career: Always a Question of Balance. October 19-21, 2014.

Rutka, James T: Department of Surgery, Duke University, Durham, North Carolina, United States, 10 Feb 2015. The Inaugural Robert H. Wilkins, M.D. Lecturer in Academic Neurosurgery: Six Dreaded Words.

Rutka, James T: EANS, Prague, Czech Republic, 14 Oct 2014. Invited Lecturer: Advances in the surgery and science of brain tumours.

Rutka, James T: HMB420 Advanced Class at University of Toronto, Toronto, Ontario, Canada, 10 Mar 2015. Lecturer: The Neuroscience of Neuro-Oncology.

Rutka, James T: Japan Neurological Society, 73rd Annual Meeting, Japan, 9-11 Oct 2014. Invited Lecturer: 1) Intractable Epilepsy in Humans: Neurosurgical procedures that make a difference. 2) New Therapeutic Targets for Adult and Pediatric Brain Tumors: Advances from Molecular Genetics. 3) Pediatric Ependymoma: How molecular genetic analyses are altering therapeutic approaches. 4) The New Strategic Plan for the Journal of Neurosurgery: Implications for Japanese Neurosurgeons.

Rutka, James T: Lviv Hospital, Lviv, Ukraine, 26 Jun 2015. Invited Lecturer: 1) Diagnosis and Management of Pineal Region Tumours. 2) The expanding role of endoscopy in neurosurgery.



Rutka, James T: McGill University, Montreal, Quebec, Canada, 10 Dec 2014. Invited Lecturer: Recent approaches to epilepsy surgery: The Sick Kids experience. 39th Annual Preston Robb Neuroscience Day Guest Lecturer.

Rutka, James T: National Cancer Institute of Ukraine, Kyiv, Ukraine, 22 Jun 2015. Invited Lecturer: 1) Establishment of the University of Toronto Brain Tumour Bank. 2) Understanding the molecular genetics of paediatric brain tumours with emphasis on clinical relevance.

Rutka, James T: RUNN Course, Woodshole, Massachusetts, United States, 28 Oct 2014. Invited Lecturer: Glioblastoma Multiforme: Advances Beyond the Leading Edge.

Rutka, James T: World Academy of Neurological Surgery, Interim Meeting, Jeju Island, Korea, Democratic People's Republic Of, 18 Apr 2015. Speaker: On Scientific Integrity.

Taylor, Michael David: American Academy of Neurological Surgery, Santa Rosa Beach, Florida, United States, 18 Sep 2014. Invited Lecturer: The nucleotide is mightier than the scalpel: neurosurgical care for patients with ependymoma in the post-genome era.

Taylor, Michael David: American Association for Cancer Research, Philadelphia, Pennsylvania, United States, 21 Apr 2015. Invited Lecturer: Molecular Biology of Ependymoma.

Taylor, Michael David: American Association of Neurological Surgeons, Washington, District of Columbia, United States, 1 May 2015. Keynote Speaker: Twelve Lies My Staffman Told Me Tumor Satellite Symposium.

Taylor, Michael David: Beyond the Genome: Cancer Genomics, Boston, Massachusetts, United States, 9 Oct 2014. Invited Lecturer: Epigenome alterations drive lethal posterior fossa ependymomas of infancy.

Taylor, Michael David: Cancer Stem Cell Conference, Cleveland, Ohio, United States, 18 Aug 2014. Invited Lecturer: CIMP phenotype in posteriof fossa ependymomas of infancy. National Center for Regenerative Medicine.

Taylor, Michael David: Chugai Expert Meeting on Brain Tumors, Tokyo, Japan, 29 Nov 2014. Keynote Speaker: The cutting edge of molecular neuro-oncology.

Taylor, Michael David: European Society for Medical Oncology, Madrid, Spain, 27 Sep 2014. Invited Lecturer: Clonal Evolution of Childhood Cancers.

Taylor, Michael David: International Conference on Brain Tumor Research and Therapy (Asilomar), Lake Tahoe, California, United States, 22 Jul 2014. Invited Lecturer: CIMP+ve Ependymomas of Infancy.

Taylor, Michael David: Japanese Society for Neuro-Oncology, Tokyo, Japan, 1 Dec 2014. Keynote Speaker: Arrival of the Molecular Era for Medulloblastoma and Ependymoma: Implications for Classification and Treatment.

Taylor, Michael David: Keynote, Genomic Advances in Medulloblastoma, Toronto, Ontario, Canada, 25 Oct 2014. Invited Lecturer: A Hegemony of Heterogeneities Drive the Clinical Behavior of Medulloblastoma.

Taylor, Michael David: Pediatric Brain Tumor Foundation Annual Meeting, San Diego, California, United States, 6 May 2015. Invited Lecturer: Molecular Biology of Ependymoma.

Taylor, Michael David: Pre-Clinical Target Actionability Workshop, Toronto, Ontario, Canada, 21 Oct 2014. Invited Lecturer: Epigenetic therapy for ependymoma.

Taylor, Michael David: Section of Neurosurgery, University Hospital, University of Verona, Verona, Italy, 18 Feb 2015. Invited Lecturer: Clinical Implications of Medulloblastoma Genomics for Clinical Practice.

Taylor, Michael David: Society for Neuro-Oncology Pediatric Meeting 2015, San Diego, California, United States, 8 May 2015. Invited Lecturer: Molecular and Translational Biology of Ependymoma.

#### **Research and Investigations**

A Randomized Controlled Trial of Anterior Versus Posterior Entry Site for Cerebrospinal Fluid Shunt Insertion. (PCO-RI: Patient-Centered Outcomes Research Institute (USA). Whitehead WW, Kestle JR, Kulkarni AV, Riva-Cambrin J, Rozzelle CJ, Browd SR, Limbrick D, Tamber M, Cochrane DD, Wellons JC, Holukbov R. (\$2,514,333.00 USD, 2014 - 2019).

BTRC Tumour Respository and Database or Tumours and Associated Patient Biologicals. *Meagan's Walk. Rutka JT*. (\$22,428.00 CAD, 2015).

Defining and targeting medulloblastoma intratumoral diversity. Canadian Institutes of Health Research (CIHR). Dirks PB. (\$754,345.00, 2014 - 2019).

Defining the Subgroup Specific Epigenetic Landscape of Medulloblastoma. Cancer Research Society. Taylor MD. (\$60,000.00 2014 - 2016).

Developing an Atypical Teratoid Rhabdoid Tumour Preclinical Model. Meagan's Walk. Rutka JT. (\$24,900.00 2015).

Development of a Pulsatile Vascular Flow Phantom for Thrombosis-Related High Intensity Focused UI. Hospital for Sick Children – Centre of Image Guided Care. Temple, M. Amaral J, Drake J, Looi T, Waspe AC. (\$10,000.00 2015 - 2016).

Image-guided Minimally Invasive Robotic Functional Hemispherotomy for Intractable Epilepsy. Centre for Brain & Mental Health, 2014 Chase-an-Idea in Paediatric Neuroscience C-BMH Catalyst. Drake JM, Eastwood K, Ibrahim G, Azimian H, Looi T. (\$39,966.00 2015 - 2016).

Killing the Hydra: Genetic Dissection of Actionable Targets Required for Maintenance of Metastatic Disease. *Terry Fox Research Institute (TFRI). Egan S, Taylor M, Woodget J, Eldad.* (\$4,430,531.00 2014 - 2019).

Magnetic Resonance Guided Focused Ultrasound for Noninvasive Pain Therapy of Osteoid Osteoma in Children- A



pilot study, Investigator. Focused Ultrasound Foundation. Drake JM. (2014 - 2015).

Magnetic resonance-guided high intensity focused ultrasound for palliation of painful skeletal metastases in children. Sick Kids Hospital; Garron Family Cancer Center. Drake JM. (\$24,966.00 2015 - 2016).

Molecular Heterogeneity Drives the Clinical Behavior of Childhood Medulloblastoma.

Canadian Cancer Society Research Institute (CCSRI). Taylor MD. (\$1,249,880.00 2015 - 2020).

MRI-guided High Intensity Focused Ultrasound (MR-HIFU) for High-Risk Neuroblastoma. Solving Kids Cancer – Buhrn Initiative. Gerstle JT, Drake JM, Waspe AC, Looi T, Amaral J, Temple M, Irwin M, Baruchel S, Malkin D, David E, Pichardo S. (\$219,320.00 2014 - 2017).

MRI-guided high intensity focused ultrasound for ablation/occlusion of blood vessels in the rabbit placenta and specific localized organs in rabbit fetuses. *Hospital for Sick Children. Gerstle JT, Piorkowska K, Waspe AC, Looi T, Ryan G, Windrum R, Drake JM.* (\$10,000.00 2014 - 2015).

Non- Invasive Treatment of Pediatric Neurological Disorders using MR-guided Focused Ultrasound- Part1 Pediatric Skull Characterization and Re-focusing, Principal Investigator. *Focused Ultrasound Foundation*. *Drake J*. (\$100,000.00, 2014 - 2015).

Non-invasive treatment of paediatric neurological disorders using MR-guided focusedultrasound (MRgFUS) Principal Investigator. *Brain Canada*. *Drake J*. (\$1,500,000.00 2014 - 2017).

Otoscopy and Ophthalmology Training Technology Development. OtoSim and Optosim Devices. *Mitacs-Accelerate*. *Drake J.* (\$80,000.00 2014 - 2015).

Quantifying brain injury on computed tomography in hospitalized children: A prospective trial. CIHR. Guerguerian A-M, Bigler ED, Hutchison JS, Kulkarni AV, Laughlin S, Parshuram CS, Raybaud C. (\$364,428.00 2014-2018).

Unravelling intratumor heterogeneity in childhood medulloblastoma. *Brain Tumor Foundation of Canada. Taylor MD.* (2014).

Wnt signaling control of glioblastoma stem cell fate. Canadian Cancer Society Research Institute (CCSRI). Dirks PB. (\$198,278.00 2014 - 2016).

#### **Honours and Awards**

Rutka, James T: Officer of the Order of Canada, Government of Canada. 2015.

Rutka, James T: Robert L. Noble Prize, Canadian Cancer Society, Canada. 2015.

Rutka, James T: Order of Ontario, Government of Ontario. 2014.

Taylor, Michael David: William E. Rawls Prize for 2015, Canadian Cancer Society. 2015.

# Division of Orthopaedics

Dr. M. Camp	Assistant Professor
Dr. M. Gargan	Associate Professor(Division Head)
Dr. S. Hopyan	Assistant Professor
Dr. A. Howard	Associate Professor
Dr. S. Kelley	Assistant Professor
Dr. M.L. Murnaghan	Assistant Professor
Dr. U.G. Narayanan	Associate Professor
Dr. J.H. Wedge	Professor
Dr. J.G. Wright	Professor
Dr. R. Zeller	Associate Professor

#### **Publications**

Apel P, Howard AW. Evaluation and Treatment of Childhood Musculoskeletal Injury in the Office. Pediatric Clinics of North America. 2014 Oct.

Baht GS, Silkstone D, Vi L, Nadesan P, Amani Y, Whetstone H, Wei Q, Alman BA. Exposure to a youthful circulation rejuvenates bone repair through modulation of β-catenin. Nat Commun. 2015 May 19; 6: 7131.

Bernick J, Wang Y, Sigal IA, Alman BA, Whyne CM, Nam D. Parameters for lithium treatment are critical in its enhancement of fracture-healing in rodents. J Bone Joint Surg Am. 2014 Dec 3; 96(23): 1990-1998.

Boutis K, Howard A, Constantine E, Cuomo A, Narayanan U. Evidence into practice: emergency physician management of common pediatric fractures. Pediatr Emerg Care. 2014 Jul 1; 30(7): 462-8.

Bradley CS, Moktar J, Maxwell A, Wedge JH, Murnaghan ML, Kelley SP. A Reliable and Valid Objective Structured Assessment of Technical Skill for the Application of a Pavlik Harness based on International Expert Consensus. Journal of Pediatric Orthopaedics. 2015, Jun 5.

D'Angelo K, Kim P, Murnaghan ML. Juvenile Osteochondritis Dissecans in a 13-year-old male athlete: A case report.



The Journal of the Canadian Chiropractic Association. 2014 Dec; 58(4): 384-394.

Donaldson S; Wright JG. Simple bone cysts: better with age? J Pediatr Orthop. 2015 Jan. 35(1):108-14.

Dwyer T, Takahashi G, Hynes K, Herold J, Wasserstein D, Nousiainen M, Ferguson P, Murnaghan ML, Leroux T, Semple J, Hodges B, Ogilvie-Harris D. How to assess communication, professionalism, collaboration and the other intrinsic CanMEDS roles in orthopedic residents: use of an objective structured clinical examination (OSCE). Canadian Journal of Surgery. 2014 Aug; 57(4): 230-36.

Gardner ROE, Kelley SP. Musculoskeletal Infection. In: Postgraduate Paediatric Orthopaedics: The Candidate's Guide to the FRCS(Tr&Orth) Examination. 2014 Sep. United Kingdom: Cambridge University Press.

Hamdy RC, Montpetit K, Aiona MD, MacKenzie WG, van Bosse HJ, Narayanan U, Raney EM, Chafetz RS, Thomas SE, Weir S, Gregory S, Yorgova P, Takahashi S, Rinaldi M, Zhang X, Dahan-Oliel N. Safety and Efficacy of Botulinum Toxin A in Children Undergoing Lower Limb Lengthening and Deformity Correction: Results of a Double-blind, Multicenter, Randomized Controlled Trial. J Pediatr Orthop. 2015 Feb 26. PMID: 25730290. AID: 10.1097/BPO.000000000000398.

Harrington J, Howard AW, Sochett E. Update on the evaluation and treatment of Osteogenesis Imperfecta. Pediatric Clinics of North America. 2014 Sep. DOI: 10.1016/j.pcl.2014.08.010.

Hegazy A, Kenawey M, Sochett E, Tile L, Cheung A, Howard A. Unusual Femur Stress Fractures in Children with Osteogenesis Imperfecta and Intramedullary Rods on Long-term Intravenous Pamidronate Therapy. Journal of Pediatric Orthopaedics. 2015 Feb 1.

Hoogenes J, Mironova P, Safir O, McQueen SA, Abdelbary H, Drexler M, Nousiainen M, Ferguson P, Kraemer W, Alman B, Reznick RK, Sonnadara RR. Student-led learning: a new teaching paradigm for surgical skills. Am J Surg. 2015 Jan 1; 209(1): 107-114.

Howard AW, Alman B. Chapter 6, Metabolic and Endocrine Abnormalities. In: Flynn J, Weinstein S (eds), Lovell and Winter's Pediatric Orthopaedics. 7th ed. 2014: 140-176. Philadelphia, United States: Lippincott, Williams and Wilkins.

Howard, AW, Kannu, P. Easily Missed? Perthes Disease. BMJ. 2014 Oct. United Kingdom. BMJ 2014;349:g5584 doi: 10.1136/bmj.g5584.

Hussain N, Yankanah R, Wright JG. The validity of level of evidence ratings in articles submitted to JBJS. J Bone Joint Surg Am. 2015 Jan 21; 97(2).

Jung NH, Pereira B, Nehring I, Brix O, Bernius P, Schroeder SA, Kluger GJ, Koehler T, Beyerlein A, Weir S, von Kries R, Narayanan UG, Berweck S, Mall V. Does hip displacement influence health-related quality of life in children with cerebral palsy? Dev Neurorehabil. 2014 Dec 1; 17(6): 420-5.

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#### **Invited Visits**

Hopyan, Sevan: Society for Developmental Biology, Seattle, Washington, United States, 19 Jul 2014. Speaker: Anisotropic stress orients remodelling of mammalian limb bud ectoderm.

Howard, Andrew: Duke University Global Health Institute, North Carolina, United States, 1 Oct 2014. Visiting Professor: Why is Surgery a Neglected Field in International Health?

Howard, Andrew: International Skeletal Dysplasia Society, Lausanne, Vaud (fr), Switzerland, 9 Jul 2014. Presenter: Spondyloepimetaphyseal dysplasia with Leptodactyly; PTHLH Mutation with a new skeletal phenotype.

**Howard, Andrew:** Parachute, Canada, 7 Feb 2014. Invited Speaker: 'Kids That Click' - Carseat video A national educational resource for parents which will be used in pre-natal classes and car seat clinics across Canada for the next five years. Co-sponsored by General Motors, and Parachute which is Canada's national injury prevention organization.

Howard, Andrew: Sabara Paediatric Hospital, São Paulo, Brazil, 14 Sep 2014. Keynote Speaker: 1) Paediatric Road Trauma in Brazil: The Paediatrician's Role in Prevention. 2) Evidence Based Medicine: Its contribution to managing children's orthopaedic conditions.

Howard, Andrew: University of Sao Paulo Department of Orthopaedics, Sao Paulo, São Paulo, Brazil, 12 Sep 2014. Visiting Professor: Evidence Based Orthopaedics; Osteogenesis Imperfecta.

Kelley, Simon: 3rd Annual Middle East Pediatric Orthopaedic Surgery Conference, Dubai, Dubayy [Dubai], United Arab Emirates, Oct 2014. Invited Lecturer: 1) The Pavlik Method Symposium of Developmental Dysplasia of the Hip on behalf of the International Hip Dysplasia Institute. 2) Closed Reduction and Spica Casting for DDH Symposium of Developmental Dysplasia of the Hip on behalf of the International Hip Dysplasia Institute.

Kelley, Simon: Smith and Nephew, Denver, Colorado, United States, Feb 2015. Chair: 1) Mounting an Orthogonal Ring on the Taylor Spatial Frame. 2) The Biomechanics of Circular Frames and Stable Fixation. 3) The Biology of Bone Regenerate and Corticotomy Techniques. 4) Using the TSF for Paediatric Limb Lengthening.



Kelley, Simon: Smith and Nephew, Memphis, Tennessee, United States, Sep 2014. Invited Lecturer: 1) The Biomechanics of Circular Frames and Stable Fixation. 2) Mounting an Orthogonal Ring on the Taylor Spatial Frame.

Narayanan, Unni G: 2014 Annual Conference of the Ontario Association of Children's Rehabilitation services, Toronto, Ontario, Canada, Nov 2014. Invited Speaker: The Ins & Outs of the Management of the Hip in Cerebral Palsy.

Narayanan, Unni G: 28th Ste-Justine Pediatric Orthopaedic Review Course With Shriner's Hospital-Canada and The Montreal Children's Hospital, Montreal, Quebec, Canada, 12 Mar 2015. Invited Speaker: LLD: Guidelines of Assessing and Planning Treatment.

Narayanan, Unni G: 68th Annual Meeting of the American Academy of Cerebral Palsy & Developmental Medicine, San Diego, California, United States, Sep 2014. 1) Invited Speaker: The Role of Late Reconstruction & Salvage Surgery of the Hip in Non-ambulatory CP. 2) Proactive V. Reactive Approaches in The Management Of Hip Displacement In Cerebral Palsy.

Narayanan, Unni G: 74th Annual Scientific Meeting, Australian Orthopaedic Association, Melbourne, Victoria, Australia, Oct 2014. Keynote Speaker: 1) Are we making a difference? Measuring meaningful outcomes for children with disabilities. 2) Redefining Malunions: Is much of the fracture literature not getting it straight?

Narayanan, Unni G: AO Trauma Course – Pediatric musculoskeletal Injuries, Davos, Switzerland, Dec 2014. Invited Lecturer: Common causes of post traumatic deformity and their management.

Narayanan, Unni G: Children's Hospital Colorado, Denver, Colorado, United States, 17 Apr 2015. Invited Speaker: 1) Are We Making a Difference? 2) Measuring Meaningful Outcomes For Children With Chronic Disabilities.

Narayanan, Unni G: Grand Rounds, Royal Children's Hospital, Melbourne, Victoria, Australia, Oct 2014. Visiting Professor: 1) Whose life is it anyway? Measuring meaningful outcomes for children with disabilities. 2) The Hip in Cerebral Palsy: From Evidence to Practice.

Narayanan, Unni G: International Pediatric Orthoapedic Symposium, Orlando, Florida, United States, Dec 2014. Invited Speaker: The "No Name" Osteotomy: Inominate Osteotomy of Salter.

Narayanan, Unni G: International Pediatric Orthoapedic Symposium, Orlando, Florida, United States, Dec 2014. Invited Speaker: Unni G. Narayanan Slipped capital Femoral Epiphysis; Current Concepts.

Narayanan, Unni G: Oslo University Hospital, Oslo, Norway, 14 Apr 2015. Invited Speaker: 1) Who's Life Is It Anyway? 2) Interventions For Children With Severe Disability, 3) What Is A Good Result Of Orthopedic Interventions?

Wedge, John Hall: Connecticut Children's Medical Centre, Hartford, Connecticut, United States, 14 Nov 2014. Visiting Professor: 1) How to improve the results of treating DDH. 2) An approach to managing Legg-Perthes disease.

Wedge, John Hall: XIX International Seminar on Paediatric Orthopaedics, Madrid, Spain, 25 Oct 2014. Invited Lecturer: 1) The limping child. 2) Developmental hip dysplasia. 3) Legg-Perthes disease and transient synovitis. 4) Neurologic hip.

Wright, James G: CAPHC, Calgary, Alberta, Canada, 18 Oct 2014. Invited Speaker: Canadian Paediatric Surgical Wait Times (CPSWT) Project: Power to Partnerships!

Wright, James G: Hospital for Special Surgery, New York, New York, United States, 3 Oct 2014. Visiting Professor: Surgeons are Human; Surgeon decision making in the era of evidence based medicine.

Wright, James G: Orthopaedic Grand Rounds Tachjdian Visiting Professor, Chicago, Illinois, United States, 19 Sep 2014. Visiting Professor: 1) Beyond evidence based orthopaedics; 2) Getting surgeons to change their behaviour or how to make yourself unpopular with your peers; 3) Stategies to change a specialty from practice-based evidence to evidence-based practice; 4) New evidence in treatment of scoliosis and using evidence to help families make decisions; 5) Management of "simple" bone cysts.

Wright, James G: University of Oxford Girdlestone Visiting Professor, United Kingdom, 6 Dec 2014. Invited Speaker: 1) Surgeons Are Human: Surgeon Decision Making in the Era of Evidence Based Medicine, or How to make yourself unpopular with your peers; 2) A Clinical Epidemiologist in an Hospital Administrative role; Implementing an Agenda for Quality, Safety, and Efficiency Strategies to Change a Specialty from Practice-based Evidence to Evidence-based Practice.

Zeller, Reinhard: Scoliosis Research Society, Anchorage, Alaska, United States, 11 Sep 2014. Invited Speaker: How to do Complex Spine Surgery: The Canadian Model.

#### **Research and Investigations**

Facilitating self-organisation of the limb bud in vitro. *Division of Orthopaedics, University of Toronto. Hopyan S.* (\$45,000.00 Jan 2014 - Dec 2014).

Fatal Child Injuries in Real World Crashes A504-AFC. Networks of Centres of Excellence (NCE) Auto21. Howard A, Snowdon A, Altenhof W, Shkrum M, Pike I. (\$153,000.00 Jun 2014 - May 2015).

Genetic control of mammalian limb pattern. Canadian Institute of Health Research (CIHR). Hopyan S, Chi-chung H. (\$820,632.00 Oct 2014 - Sep 2019).

International Competency Based Training for the Application of a Pavlik Harness. *Paediatric Orthopaedic Society of North America*. *Kelley S, Murnaghan L, Wedge J, Bradley C*. (\$9,700.00 Jul 2014 - Aug 2015).

International Competency Based Training for the Application of the Pavlik Harness. *International Hip Dysplasia Institute. Kelley S, Murnaghan LB, Bradley C.* (\$30,000.00 Oct 2014 - Oct 2016).

Outcomes of Hip Interventions for Children with Cerebral Palsy - An International Multi-Centre Prospective Comparative Cohort Study. Canadian Institutes of Health Research. Narayanan U, Fehlings D, Graham K, Hamdy R, Mulpuri



K, Stephens D, Willan A. (\$678,974.00 2014 - 2019).

Outcomes of Hip Interventions for Children with Cerebral Palsy – An International Multi-Centre Prospective Comparative Cohort Study. *American Academy of Cerebral Palsy and Developmental Medicine (AACPDM), Pedal-With-Pete Foundation.* Narayanan U. (\$25,000.00 2014 - 2015).

Percutaneous Screw versus Percutaneous Drill Epiphysiodesis for Leg Length Discrepancy: A Randomized Controlled Trial. *Pediatric Orthopaedic Society of North America (POSNA)*. *Dodwell E, Wright JG*. (\$30,000.00 Jun 2014 - May 2015).

Simple Bone Cysts in Kids (SBocK) trial. Canadian Institutes of Health Research (CIHR). Wright J, Doria A, Hopyan S, Babyn P, Stimec J. (Jul 2014 - Jun 2015).

Simulation of surgical gestures in orthopaedic spine surgery. Connaught Innovation Award Competition. Zabjek K. Wang D, Agur A, Zeller R. (\$73,644.00 Oct 2014).

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 2015 - 2016).

#### **Honours Received**

Kelley, Simon: McMurrich Research Award - 2nd Prize, Gallie Day, Department of Surgery, The University of Toronto, Toronto. Award for best manuscript and oral presentation of scientific research performed as part of PhD at Gallie Day. Jul 2014 - Jun 2015.

Narayanan, Unni G: Pedal-With-Pete Foundation Award, American Academy for Cerebral Palsy and Developmental Medicine. 2014.

Wedge, John Hall: Doctor of Laws (L.LD) (Hon.), University of Saskatchewan. Jun 2014

Wright, James G: 2014 Herbie Fund Doctor of the Year, The Hospital for Sick Children, Toronto, Ontario, Canada. Nov 2014.

Wright, James G: Lifetime Achievement Award, The Hospital for Sick Children, Toronto, Ontario, Canada. Nov 2014.

## Division of Plastic and Reconstructive Surgery

Dr. G.H. Borsche	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 Won	Assistant Professor
Dr. R. Zuker	Professor

#### **Publications**

Antonarakis GS, Adibfar A, Tompson BD, Paedo D, Daskalogiannakis J, Fisher DM. Presurgical cleft lip anthropometrics and dental arch relationships in patients with complete unilateral cleft lip and palate. The Cleft Palate-Craniofacial Journal. 2015 May; 52(3): 269-276.

Antonarakis GS, Fisher DM. Permanent tooth agenesis and maxillary hypoplasia in patients with unilateral cleft lip and palate. Plastic and Reconstructive Surgery. 2015.

Antonarakis GS, Fisher DM. Presurgical unilateral cleft lip anthropometrics and the presence of dental anomalies. The Cleft Palate-Craniofacial Journal. 2015.

Antonarakis GS, Tompson BD, Fisher DM. Preoperative cleft lip measurements and maxillary growth in patients with unilateral cleft lip and palate. The Cleft Palate-Craniofacial Journal. 2015.

Arad E, Li Z, Sitzman TJ, Agur AM, Clarke HM. Anatomic sites of origin of the suprascapular and lateral pectoral nerves within the brachial plexus. Plastic and Reconstructive Surgery. 2014. 133(1): 20e-27e.

Bade SA, Lin JC, Curtis CG, Clarke HM. Extending the indications for primary nerve surgery in obstetrical brachial plexus palsy. BioMed Research International. 2014. Hindawi Publishing Corporation. 2014; doi: 10.1155/2014/627067.

Bains RD, Elbaz U, Zuker RM, Ali A, Borschel GH. Corneal Neurotization from the Supratrochlear Nerve with Sural Nerve Grafts: A Minimally Invasive Approach. Plastic and Reconstructive Surgery. 2015 Feb; 135(2):397e-400e.

Bains RD, Platt J, MacGregor D, Borschel GH. Atypical thoracic outlet syndrome and reverse flow thromboembolism. Pediatr Neurol. 2014 Sep 1; 51(3): 453-6.

Borschel GH, Ghanekar SJ. Toronto Video Atlas of Liver, Pancreas and Transplant Surgery. In: 2014 Jul 10.

Borschel GH, Hendry JM, 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 May 29.



Clarke H, Tse R, Malessy M, Kozin S. IFSSH Scientific Committee on Neonatal Brachial Plexus Palsy. IFSSH Ezine. 2015; 5(2): 16-24.

Fattah AY, Caro C, Khechoyan DY, Tompson B, Forrest CR, Phillips JH. Cephalometric outcomes of orthognathic surgery in hemifacial microsomia. Journal of Craniofacial Surgery. 2014 Sep 1; 25(5): 1734-9.

Fisher DM. Unilateral cleft lip repair (chapter 19). In: Bauer BS, Zuker RM, Bentz ML (eds), Principles and Practice of Pediatric Plastic Surgery. 2nd. 2014. United States: Quality Medical Publishing/Taylor & Francis/CRC Press.

Flynn J, Shaul RZ, Hanson MD, Borschel GH, Zuker R. Pediatric facial transplantation: Ethical considerations. Canadian Journal Plastic Surgery. 2014 Jul 7; 22(2): 67-9.

Harvey I, Clarke HM. Obstetric Brachial Plexus Palsy. In: John Brian Boyd, Neil F. Jones (eds), Operative Microsurgery. 2015: 958-974. New York: McGraw-Hill Education.

Ho ES, Ponnuthurai J, Clarke HM. The incidence of idiopathic musculoskeletal pain in children with upper extremity injuries. Journal of Hand Therapy. 2014; 27(1): 38-43.

Isaac K, Phillips J. Optimization of Cranio-Orbital Remodeling; Application of a mathematical model. Journal of Craniofacial Surgery. 2015 Apr 22.

Krause MP, Dworski S, Feinberg K, Jones K, Johnston AP, Paul S, Paris M, Peles E, Bagli D, Forrest CR, Kaplan DR, Miller FD. Direct genesis of functional rodent and human schwann cells from skin mesenchymal precursors. Stem Cell Reports. 2014 Jul 8; 3(1): 85-100.

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.

McKee D, Thoma A, Bailey K, Fish J. A review of hydrofluoric acid burn management. Journal of Plastic Surgery. 2014 Jul; 22(2): 95 - 98.

Panchapakesan V, Zhong T. Forrest CR, Pusic AL, Thoma A. psychometrics: Essential for Valid, Reliable, and Responsive Measurements in the Development of Patient-Reported Outcome Instruments in Plastic Surgery. Plastic Reconstructive Surgery. 2014 Dec; 2(12): e280.

Sainsbury D, Borschel G, Zuker RM. Surgical Reanimation Techniques for Facial Palsy/Paralysis. In: Open Access Atlas of Otolaryngology, Head and Neck Operative Surgery. 2014 Oct.

Sainsbury D, Liu E, Alvarez-Veronesi C, Ho E, Hopyan S, Zuker RM, Borschel G. Long-Term Outcomes following Lower Extremity Sarcoma Resection and Reconstruction with Vascularized Fibula Flaps in Children. Plastic and Reconstructive Surgery. 2014 Oct; 134(4): 808-820.

Swan MC, Clarke HM. Microsurgery for Obstetrical Brachial Plexus Palsy. In: J.M. Abzug et al (eds), The Pediatric Upper Extremity. 2015: 607-631. Springer Science + Business Media New York. AID: DOI 10.1007/978-1-4614-8515-5 28.

Swan MC, Fisher DM. Cleft lip. In: Farhadieh RD, Bulstrode NW, Cugno S (eds), Plastic and reconstructive surgery: approaches and techniques. 2015 Mar: 204-218. United Kingdom: John Wiley & Sons, Ltd.

Touil L, Fisher DM, Fattah AY. Assessment of long term donor-site morbidity after harvesting the latissimus dorsi flap for neonatal myelomeningocele repair. Authors: Osinga R, Mazzone L, Meuli M, Meuli-simen C, Campe von A. J Plast Reconstr Aesthet Surg. 2015; 67(8): 1070-1075.

Watts GD, Antonarakis GS, Forrest CR, Tompson BD, Phillips JH. Is Linear Advancement Related to Relapse in Unilateral Cleft Lip and Palate Orthognathic Surgery? Cleft Palate Craniofac Journal. 2014 Sep 26. PMID: 25259777. AID: 10.1597/14-061.1.

Watts GD, Antonarakis GS, Forrest CR, Tompson BD, Phillips JH. Single versus segmental maxillary osteotomies and long-term stability in unilateral cleft lip and palate related malocclusion. Journal of Oral Maxillofacial Surgery. 2014 Dec; 72(12): 2514-21.

Wong KWY, Klaiman PG, Forrest CR. Posterior pharyngeal flaps. In: Losee J, Kirschner RE, Editors. (eds), Comprehensive Cleft Care. 2nd. 2015. United Kingdom.

#### **Invited Visits**

Borschel, Gregory H: Asaf Harofeh Medical Center, Kfar Adumim, Kfar Adumim, Israel, 10 Jul 2014. Presenter: 1) Advances in Nerve Regeneration, Facial Paralysis and Cornea Reinnerateation. 2) Corneal Neurotization.

Borschel, Gregory H: Dr. Fausto Viterbo / UNESP, Sao Paulo State University, Botucatu, São Paulo, Brazil, 12-13 Sep 2014. Invited Speaker: 1) Neonatal Brachial Plexus injury reconstruction. 2) Corneal Neurotization. 3) Pharmacologic Rescue of Motor and Sensory Function by the Neuroprotective Compound P7C3 Following Neonatal Peripheral Nerve Injury in a Rat Model. 4) A rat study of side-to side bridging to promote nerve regeneration after delayed surgical repair of transected nerve. 5) Facial Paralysis in Children. 6) Chair: Brachial Plexus and Hand, II and III.

Borschel, Gregory H: Moebius Syndrome Symposium, Washington, Washington, United States, 17-20 Jul 2014. Presenter: 1) Advances in Nerve Regeneration in Facial Paralysis. 2) Aspects of Pediatric Facial Paralysis Reonstruction. 3) Advances in Nerve Regeneration Research.

Clarke, Howard: Sunderland Society, Ann Arbor, Michigan, United States, 8-9 Jun 2015. Presenter: 1) Outcomes following single root reconstruction of the upper trunk in Erb's palsy. 2) Pain in children following microsurgical reconstruction for obstetrical brachial plexus palsy.



Fish, Joel Steven: American Burn Association, Chicago, Illinois, United States, 22 Apr 2015. Presenter: 1) School Re-Entry for Pediatric Burn Survivors: Lessons Learned. 2) Pruritus in the Pediatric Population: A Five Year Retrospective Review.

Fish, Joel Steven: Burns British Association of Plastic and Reconstructive and Aesthetic Surgeons, London, City of, United Kingdom, 9 Mar 2015. Keynote Speaker: 1) Special Consideration in Pediatric Burns Acute Care Advanced Educational Courses in Plastic Surgery. 2) Electrical Injury Advanced Educational Courses in Plastic Surgery. 3) Rehabilitation in the Year 2050 Advanced Educational Courses in Plastic Surgery. 4) Burns Team of the Future Advanced Educational Courses in Plastic Surgery.

Fish, Joel Steven: Canadian Association of Wound Care (CAWC), Toronto, Ontario, Canada, 1 Nov 2014. Invited Speaker: The Future of Burn Care.

Fisher, David: 28th Michigan Cleft Palate Association Conference, Grand Rapids, Michigan, United States, 8 May 2015. Invited Lecturer: Treatment of cleft lip and palate: The middle years. "Facial Surgery, Ages 2 to 12".

Fisher, David: National Cleft Meeting, University Hospital SUS, Malmo, Sweden, 17 Oct 2014. Invited Lecturer: Treatment protocol & organization at SickKids.

Fisher, David: Operation Smile, Bogota, Colombia, 14 Nov 2014. Invited Lecturer: 1) Approach on bilateral cleft lip repair. 2) Evaluation of successful treatment of VFI. 3) Treatment of cleft nasal deformity. 4) Unilateral cleft lip repair-An anatomic subunit approximation technique.

Fisher, David: The 1st Congress of the International Society of Auricular Reconstruction, Paris, France, 26 Sep 2014. Invited Lecturer: Single stage autologous ear reconstruction for microtia: 10 consecutive cases.

Forrest, Christopher: 15th International Congress of the International Society of Craniofacial Surgery, Jackson Hole, Wyoming, United States, 14-15 Sep 2014. Presenter: 1) Age-based approach to sagittal synostosis: Application of extended strip craniectomy (ESC) and total vault reshaping (TCVR) techniques. 2) Posterior Distraction in syndromic craniosynostosis Panel Session: What are the new perspectivies in craniosynostosis surgery? Pre-Congress Symposium: Controversy and Consensus in Craniosynostosis and Cranial Vault Surgery.

Forrest, Christopher: Birmingham Children's Hospital Craniofacial Rounds, Birmingham, United Kingdom, 4 Nov 2014. Invited Lecturer: 1) Syndromic Craniosynostosis: A management plan. 2) Positional Plagiocephaly.

Forrest, Christopher: European Society of Plastic, Reconstructive and Aesthetic Surgery, Scotland, Edinburgh, Ireland, 11 Jul 2014. Presenter: Posterior cranial vault distraction in the management of syndromic craniosynostosis.

Forrest, Christopher: ICHOM Meeting: Consortium to develop outcome measures for Craniofacial Microsomia, Rotterdam, Netherlands, 1 May 2015. Invited Lecturer: Craniofacial Microsomia: Sickkids Approach to Management.

Forrest, Christopher: Utrecht, Netherlands, 1 Oct 2014. Invited Lecturer: Defining Glossoptosis< Diagnosing, analyzing and treating Pierre Robin Sequence: A consensus Meeting.

Wong, Karen Wing-Yin: Pediatric Grand Rounds, McMaster University, Hamilton, Canada, 30 Oct 2014. Invited Speaker: Measuring Outcomes that Matter to Patients: An International Study to Develop and Validate a Patient-Reported Outcome (PRO) Instrument for Cleft Lip and/or Palate: The CLEFT-Q.

Wong, Karen Wing-Yin: Pre-Conference Symposium, 72nd Annual Meeting of the American Cleft Palate-Craniofacial Association (ACPA), Palm Springs, United States, 20-21 Apr 2015. Invited Panel Presenter: 1) Taking our pulse – evaluating our teams' individual and team outcome goals. 2) Pulling it together – developing a road map/playbook to bring this back to our team. 3) Invited Speaker: CLEFT-Q - Whose ideal is it anyway.

Wong, Karen Wing-Yin: Symposium on Challenges in Craniofacial Registries, European Craniofacial Conference, Goteborg, Sweden, 26 Jun 2015. 1) Invited Panel Presenter: CLEFT-Q: Measuring patient-reported outcomes in children and young adults with cleft lip and/or palate. 2) Presenter: A patient-reported outcome measure for patients with cleft lip and/or palate: field-testing the CLEFT-Q.

Wong, Karen Wing-Yin: Texas Children's Hospital, Houston, Texas, United States, 1 May 2015. Invited Lecturer: Measuring what matters: development of the CLEFT-Q.

Zuker, Ronald: 11th Moebius Syndrome Conference, Washington, District of Columbia, United States, 18 Jul 2014. Invited Speaker: Surgery for a Smile.

Zuker, Ronald: American Society for Reconstrutive Microsurgery - Master Series, Paradise Island, Bahamas, 24 Jan 2015. Invited Lecturer: Surgical Collaboration in the Pediatric Setting - Opportunities Abound!

Zuker, Ronald: Cleveland Clinic, Weston, Florida, United States, 10 Feb 2015. Invited Lecturer: 1) Facial Paralysis Reconstruction in Children. 2) The Broad Brush of Pediatric Microsurgery.

Zuker, Ronald: Ichilov Hospital, Tel Aviv, Israel, 18 Nov 2014. Invited Lecturer: Reconstruction in Extensive Facial Congenital Nevi.

Zuker, Ronald: Sri Ramachandra University, Department of Plastic Surgery, Chennai, India, 23 Mar 2015. Invited Lecturer: Approaches to the Facial Paralysis Patient. Details of Cross Face Nerve Grafting.

Zuker, Ronald: Texas Children's Hospital Grand Rounds, Houston, Texas, United States, 4-5 Dec 2014. Invited Lecturer: 1) Conjoined Twins: Etiology, Classification, Surgical Separation and Lessons Learned. 2) Facial Reanimation.

Zuker, Ronald: The 40th Annual Meeting of the Israel Society of Plastic and Aesthetic Surgery, Tel Aviv, Israel, 25 Nov 2014. Invited Lecturer: Facial Paralysis Reconstruction.

Zuker, Ronald: The 40th Annual Meeting of the Israel Society of Plastic and Aesthetic Surgery, Tel Aviv, Israel, 24 Nov 2014. Invited Lecturer: The Broad Brush of Pediatric Microsurgery.



Zuker, Ronald: University of Illinois at Chicago, Division of Plastic, Reconstructive and Cosmetic Surgery, Chicago, Illinois, United States, 11 Mar 2015. Invited Speaker: Facial Paralysis Reconstruction in Children.

Zuker, Ronald: WSRM 8th World Congress, Mumbai, India, 19-20 Mar 2015. 1) Master Class: Facial Reanimation. 2) Invited Speaker: Master's Perspectives: The Broad Brush of Pediatric Microsurgery. 3) Panel Moderator: Facial Reanimation. 4) Video Workshop: Facial Reanimation.

#### **Research and Investigations**

Development of the FACE-Q Kids PRO Instrument. Plastic Surgery Foundation. Wong KW-Y. (\$49,978.00, 2015).

Development of a robotic approach to cleft palate repair. Plastic Surgery Foundation. Wong K W-Y. (\$9,000.00, 2015).

Enhancement of nerve regeneration with controlled release of neurotrophic factors. CIHR. Borschel G, Gordon T, Shoichet MS. (\$20,000.00 2014-2016)

#### **Honours Received**

Fisher, David: Fred Schudy Memorial Research Award, The American Association of Orthodontists Foundation. 2015.

Wong, Karen Wing-Yin: Best clinical paper. Development of a Robotic Approach to Cleft Palate Repair, Canadian Society of Plastic Surgery (CSPS), Victoria, British Columbia, Canada. Jun 2015.

Wong, Karen Wing-Yin: Development of a Robotic Approach to Cleft Palate Repair, 2015 Gallile Bateman and McMurrich Resident Poster Research Competition. First Place Research Award, Gallie Day. May 2015.

Zuker, Ronald: 2014 University of Toronto Research Award, University of Toronto, Faculty of Medicine. Nov 2014.

Zuker, Ronald: Best Clinical Paper, American Society for Peripheral Nerve, Paradise Island, Bahamas. Corneal Reinnervation: A Minimally Invasive Approach. Jul 2014 - Jun 2015.

## Division of Urology

Dr. D.J. Bägli	Professor
Dr. W.A. Farhat	Professor
Dr. M.A. Kovle	Professor (Division Head)

Dr. M.A. Koyle Professor (Division Head Dr. A.J. Lorenzo Associate Professor

#### **Publications**

Bagli D. NOTch Just a Bladder Control Problem. In: Keli Xu, Sean E. Egan (eds), Cancer Cell Previews. 26. 2014 Oct 13: 452-454. Toronto, Canada: Elsevier Inc.

Blankstein U, Longarini Z, Ramadan K, Virani K, Bramall A, Herschorn S, Lorenzo A. Toronto Notes, Urology Section. 2014. Editor.

Bowlin PR, Farhat WA. Laparoscopic Nephrectomy and Partial Nephrectomy: Intraperitoneal, Retroperitoneal, Single Site. Urol Clin North Am. 2015 Feb 1; 42(1): 31-42.

Braga LH, Farrokhyar F, D'Cruz J, Pemberton J, Lorenzo AJ. Risk factors for febrile urinary tract infection in children with prenatal hydronephrosis: a prospective study. J Urol. 2015 Mar 23; 193(5 Suppl): 1766-71.

**Braga LH, Lorenzo AJ.** The Changing Elaboration of Inhibin B in Patients with Unilateral Testicular Maldescent vs Vanished Testis. J Urol. 2015 May 1; 193(5): 1465-6.

Copp H, Braga L, Taisan G, Lorenzo AJ. Cryptorchidism, Hernia, and Hydrocele. In: Catherine R. deVries, MD (eds), Congenital Anomalies in Children. 2014 Oct. Canada: A Joint SIU-ICUD International Consultation.

De Matthaeis A, Di Lorenzo AJ, Gargano A, Vendemiale G, Bacci S, De Cosmo S. Chronic inflammation in offspring of patients with type 2 diabetes and albuminuria. Acta Diabetol. 2015 Apr 8. PMID: 25845435. AID: 10.1007/s00592-015-0747-7.

Echarri A, Ollero V, Barreiro-de Acosta M, Fernández-Villaverde A, Hernández V, Lorenzo AJ, Pereira S, Carpio D, Castro J, EIGA Group. Clinical, biological, and endoscopic responses to adalimumab in antitumor necrosis factor-naive Crohn's disease: predictors of efficacy in clinical practice. Eur J Gastroenterol Hepatol. 2015 Apr; 27(4): 430-5.

Farhat WA. Tissue engineering of the bladder-when will we get there? J Urol. 2014 Oct 1; 192(4): 1021-2.

Gleason JM, Bowlin PR, Bagli DJ, Lorenzo AJ, Hassouna T, Koyle MA, Farhat WA. A comprehensive review of pediatric urachal anomalies and predictive analysis for adult urachal adenocarcinoma. J Urol. 2015 Feb 1; 193(2): 632-6.

Gleason JM, Koyle MA. Laparoscopic Varicocelectomy, In. Pediatric Endourology Techniques. 2014. 173-182, Springer.

Gleason JM, Lorenzo AJ, Bowlin PR, Koyle MA. Innovations in the management of Wilms' tumor. Ther Adv Urol. 2014 Aug 1; 6(4): 165-76.

Gómez MÁ, Battaglia O, Lorenzo AJ, Lorenzo J, Jiménez S, Sampaio J. Effectiveness during ball screens in elite basket-ball games. J Sports Sci. 2015 Feb 23: 1-9.



Hassouna T, Gleason JM and Lorenzo AJ. Botulinum toxin A's expanding role in the management of pediatric lower urinary tract dysfunction. Curr Urol Rep. 2014 Aug;15(8):426.

Herschorn S, Jarvi K, Lorenzo A. Chapter 29. Toronto Notes Urology Section. 2014. Editor.

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. 2015 Mar 1. PMID: 25728352. AID: 10.1002/mc.22300.

Khambati A, Wehbi E, Farhat WA. Laparo-endscopic Single Site Surgery in Pediatrics: Feasibility and Surgical Outcomes from a Preliminary Prospective Canadian Experience. Canadian Urology Association Journal. 2015 Feb 15; 9.

Knight S, Lorenzo AJ, Maloney AM, Srikanthan A, Donen R, Greenblatt E, Gupta A. An approach to fertility preservation in prepubertal and postpubertal females: A critical review of current literature. Pediatr Blood Cancer. 2015 Mar 4; 62(6): 935-9.

Koyle MA, Bowlin, P. Issues in the Long-Term Management of Adolescents and Adults with DSD: Management of Gonads, Genital Reconstruction, and Late Presentation of the Undiagnosed DSD. Hadley M. Wood, Dan Wood (eds), Transition and Lifelong Care in Congenital Urology. 2015 May: p.65-76. United States: Springer.

Koyle MA, Lorenzo AJ, Pippi Salle JL. Tumors of the Lower Genitourinary Tract in Children and Adolescent. Pediatric Urology for the Primary Care Physician. 2015 Jan. United States: Springer.

Lorenzo AJ, Khoury AE. Ectopic Ureters. In: Rabinowitz, R., Hulbert, WC., Mevorach, RA. (eds), Pediatric Urology for the Primary Care Physician. 2015. Totowa: The Humana Press Inc.

Lorenzo AJ, Koyle MA, Pippi Salle JL. Tumors of the Lower Genitourinary Tract. In: Pediatric Urology for the Primary Care Physician. 2015. In: Pediatric Urology for the Primary Care Physician (Rabinowitz, R, Hulbert, WC, Mevorach, RA., eds). The Humana Press Inc., Totowa, New Jersey.

Lorenzo AJ. "A-MACE-ing" Personal reflections on bowel management options for difficult to treat constipation in children, adolescents and adults with spina bifida. Current. 2015 Apr; (Spring2015): pp 16-18. Canada: Spina Bifida and Hydrocephalus Association of Ontario. Spring 2015 Issue.

Mannina L, Sobolev AP, Di Lorenzo AJ, Vista S, Tenore GC, Daglia M. Chemical Composition of Different Botanical Origin Honeys Produced by Sicilian Black Honeybees (Apis mellifera ssp. sicula). J Agric Food Chem. 2015 Mar 10. PMID: 25730368. AID: 10.1021/jf506192s.

Minevich E, Lorenzo AJ, DeFoor WR, Koyle MA. Pediatric Renal Tumors. In: Kanwal Kher, H. William Schnaper, Larry A. Greenbaum (eds), Clinical Pediatric Nephrology. Third Edition. 2014. Informa Publishers, London 2014.

Partouche H, Buffel du Vaure C, Personne V, Le Cossec C, Garcin C, Lorenzo AJ, Ghasarossian C, Landais P, Toubiana L, Gilberg S. Suspected community-acquired pneumonia in an ambulatory setting (CAPA): a French prospective observational cohort study in general practice. NPJ Prim Care Respir Med. 2015 Mar 12; 25: 15010. PMID: 25763466. AID: 10.1038/npjpcrm.2015.10.

Penna FJ, Bowlin P, Alyami F, Bägli DJ, Koyle MA, Lorenzo AJ. Novel strategy for temporary decompression of the lower urinary tract in neonates using a double-J ureteral stent. J Urol. 2015 May 8. PMID: 25963187. AID: 10.1016/j. juro.2015.04.102.

Romao RL, Figueroa V, Salle JL, Koyle MA, Bägli DJ, Lorenzo AJ. Laparoscopic ureteral ligation (clipping): a novel, simple procedure for pediatric urinary incontinence due to ectopic ureters associated with non-functioning upper pole renal moieties. J Pediatr Urol. 2014 Dec 1; 10(6): 1089-94.

Rumman RK, Nickel C, Matsuda-Abedini M, Lorenzo AJ, Langlois V, Radhakrishnan S, Amaral J, Mertens L, Parekh RS. Disease Beyond the Arch: A Systematic Review of Middle Aortic Syndrome in Childhood. Am J Hypertens. 2015 Jan 27. PMID: 25631383. AID: 10.1093/ajh/hpu296.

Sigwald EL, Genoud ME, Giachero M, de Olmos S, Molina VA, Lorenzo AJ. Selective neuronal degeneration in the retrosplenial cortex impairs the recall of contextual fear memory. Brain Struct Funct. 2015 Feb 15. PMID: 25682264. AID: 10.1007/s00429-015-1008-9.

#### **Invited Visits**

Farhat, Walid A: 2nd Annual Paediatric Urology Robotic and Laparoscopic Course Florida Hospital for Children, Nicholson Center, Orlando, Florida, United States, 2-3 Apr 2015. 1) Facilitator: Lab Session: Robotic/Laparoscopic/Mimic Stations/Surgery. 2) Invited Lecturer: Pneumoperitoneaum Physiological Changes in Children.

Farhat, Walid A: Canadian Update in Surgical Procedures, Montreal, Quebec, Canada, 7 Nov 2014. Invited Speaker: Single PortSurgery.

Farhat, Walid A: Pediatric Surgery and Urology Symposium, Yerevan, Armenia, 3 Jul 2014. Invited Speaker: 1) Clinical guidedline updates in the management of UDT, febrile UTI, VUR. 2) Fundamentals of laparoscopy, instrumentation, ergonomics. 3) Tips and Tricks in Lap Cases, port placement, management of intra-op complications. 4) New Approaches to Laproscopic Nephrectomy.

Farhat, Walid A: Pediatric Surgery and Urology Symposium, Yerevan, Armenia, 3 Jul 2014. Performed live surgery: Pyeloplasty, Nephrectomy, Orchidopexy.

Koyle, Martin Allan: 2015 Pediatric Urology Workshop, Cincinnati, Ohio, United States, 19 Apr 2015. Invited Speaker: 1) Transplantation into an Abnormal Genitourinary Tract. 2) Wrap Up Session.

Koyle, Martin Allan: Royal Children's Hospital, Melbourne, Australia, 8 Apr 2015. Visiting Professor: Current Perspectives on Surgical Management of Pediatric Renal Tumors.



Koyle, Martin Allan: Urological Society of Australia and New Zealand, 68th Annual Scientific Meeting, Adelaide, South Australia, Australia, 13-14 Apr 2015. 1) Invited Lecturer: Where will pediatric urology be in 2025? 2) Facilitator: Transition of Paediatric patients to adult urologists: pitfalls and other challanges. 3) Facilitator: What to do when the baby isn't a boy or a girl? 4) Facilitator: The current management of the duplex kidney, ureterocele and ectopic ureters in children. 5) Facilitator: Pediatric urology training in the USA, how we do it? 6) Invited Lecturer: Guidelines to doing harm and avoiding these.

Lorenzo, Armando J: Caja del Seguro Social, Panama, Panama city, Panamá, Panama, 28 Feb 2015. Visiting Professor: Current management of bladder exstrophy: Lecture and surgical workshop.

Lorenzo, Armando J: Children's Hospital Boston, Boston, Massachusetts, United States, 8 Sep 2014. Invited Lecturer: 1) Case discussion, pediatric urology. 2): Antenatal hydronephrosis: Our current tendencies in medical and surgical management. 3) Surgical issues in pediatric renal transplantation: The value of a team approach.

Lorenzo, Armando J: International Society of Pediatric Surgical Oncology (IPSO), Toronto, Ontario, Canada, 21 Oct 2014. Invited Speaker: 1) Fertility preservation in pediatric cancer: Surgeon's perspective. 2) Open vs laparoscopic nephrectomy for Wilms' tumor.

Lorenzo, Armando J: London Health Sciences Centre - St. Joseph's Hospital, Hamilton, Ontario, Canada, 8 Jun 2015. Visiting Professor: Decisions, Decisions, Decisions...Informed Consent, Conflict and Regret with Reconstructive Genital Surgery in Children.

Lorenzo, Armando J: Pediatric Oncology Group of Ontario (POGO), Toronto, Ontario, Canada, 14 Nov 2014. Invited Speaker: Fertility preservation in children and adolescents with lymphoma - clinical options and psychological considerations.

Lorenzo, Armando J: Societe Internationale d'Urologie (SIU), Glasgow, Glasgow City, United Kingdom, 14 Oct 2014. Invited Lecturer: Pediatric urology update: Undescended testis and varicocele.

Lorenzo, Armando J. UCLA Department of Urology, Los Angeles, California, United States, 16 Jul 2014. Invited Speaker: The future of Pediatric Urology.

#### **Research and Investigations**

An Interactive E-Learning Platform to Enhance Teaching and Learning of Loupe Microsurgical Skills. Canadian Institute for Health Research. Bagli D, Odeh R, Penna, Grober E, Dubrowski A. (\$10,000.00 2014).

Contemporary practice in the use of VCUG following febrile urinary tract infections in children and the impact of evidence based guidelines. SickKids Research Training Centre. Lorenzo A, Lee L. (\$3,000.00 Oct 2014 - Oct 2015).

Continuous Antibiotic Prophylaxis versus Placebo in infants diagnosed with Primary Megaureter: A prospective, randomized controlled trial. CUA Astellas Scholarship. Lorenzo A, Braga LHP, Pemberton J, Farrokhyar F, Fulford M, Giglia L, Lau K. (\$50,000.00 CAD, Jul 2014 - Jun 2015).

Development of a web-based micro-surgical skills surgical practice platform. *Preoperative Services Innovation Fund. Bagli DJ, Grober E, Dubrowski A, Odeh R.* (\$10,000.00 2015).

Expertise-Based Randomized Controlled Trial of Scrotal Versus Inguinal (Standard) Orchidopexy on Postoperative Pain: EXPRESSO Trial. McMaster Surgical Associates Clinical Research. Braga LHP, DCruz J, Pemberton J, Farrokhyar F, Lorenzo A. (\$30,000.00 Jul 2014 - Jun 2015).

Improving Access to Standardized Fertility Preservation Information in Pediatric Oncology: a 1 yr Pilot Knowledge Translation Intervention. *Pediatric Oncology Group of Ontario. Lorenzo A.* (\$14,961.80 May 2014 - Jun 2015).

#### **Honours Received**

Farhat, Walid A: PARO Excellence in Clinical Teaching Award, University of Toronto. Dept of Surgery, Faculty of Medicine. University if Toronto residency training program. Mar 2015 - Jul 2015.

### PGY1 Welcome Party





Mount Sinai Hospital Jay S. Wunder, Surgeon-in-Chief, Rubinoff-Gross Chair in Orthopaedic Oncology

#### **Division of General Surgery**

Publications – 57 New Grants – 14 Awards - 1

#### **Division of Orthopaedics**

Publications – 37 New Grants – 5 Awards – 3

# Division of General Surgery

Cohen, Zane Professor Easson, Alexandra M. Assistant Professor Gladdy, Rebecca Assistant Professor Govindarajan, Anand Assistant Professor Gryfe, Robert Neil Assistant Professor Kennedy, Erin D. Associate Professor MacRae, Helen M Professor McCart, Judith Andrea Associate Professor McLeod, Robin S. Professor Swallow, Carol Jane Professor (Division Head)



#### **Division of Urology**

Publications – 29 New Grants – 13 Awards - 2

#### **Publications**

Acuna SA, Ottolino-Perry K, Cako B, Tang N, Angarita FA and McCart JA. Oncolytic vaccinia virus as an adjuvant treatment to cytoreductive surgery for malignant peritoneal mesothelioma. Ann Surg Oncol. 2014 Jul;21(7):2259-66.

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. Abdominal Imaging. 2014 Oct 1.

Bonavlot S, Gronchi A, Hohenberger P, Pollock RE, Raut CP, Rutkowski P, Strauss D, Swallow CJ, Van Coevorden F. Management of primary retroperitoneal sarcoma (RPS) in the adult: a consensus approach from the Trans-Atlantic RPS Working Group. Ann Surg Oncol. 2015 Jan;22(1):256-63.

Brar SS, Mahar AL, Helyer LK, Swallow C, Law C, Paszat L, Seevaratnam R, Cardoso R, McLeod R, Dixon M, Yohanathan L, Lourenco LG, Bocicariu A, Bekaii-Saab T, Chau I, Church N, Coit D, Crane CH, Earle C, Mansfield P, Marcon N, Miner T, Noh SH, Porter G, Posner MC, Prachand V, Sano T, van de Velde C, Wong S, Coburn NG. Processes of care in the multidisciplinary treatment of gastric cancer: results of a RAND/UCLA expert panel. JAMA Surg. 2014. Jan; 149(1):18-25.

Brown CJ, Achkar JP, Bressler BL, MacLean AR, Femzi FH. Evidence Based Reviews in Surgery Group. Dis Colon Rectum. 2014. Feb; 57(2):278-81.

Casali PG, Blay JY, Bertuzzi A, Bielack S, Bjerkehagen B, Bonvalot S, Boukovinas I, Bruzzi P, Dei Tos AP, Dileo P, Eriksson M, Fedenko A, Ferrari A, Ferrari S, Gelderblom H, Grimer R, Gronchi A, Haas R, Hall KS, Hohenberger P, Issels R, Joensuu H, Judson I, Le Cesne A, Litière S, Martin-Broto J, Merimsky O, Montemurro M, Morosi C, Picci P, Ray-Coquard I, Reichardt P, Rutkowski P, Schlemmer M, Stacchiotti S, Torri V, Trama A, Van Coevorden F, Van der Graaf W, Vanel D, Wardelmaan E, Colombo C, Fiore M, Mariani L, Miceli R, Pollock RE, Raut CP, Strauss D, Swallow CJ. Soft tissue and visceral sarcomas: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol. 2014 Sep;25 Suppl 3:iii102-12. doi: 10.1093/annonc/mdu254.



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Correa JC, Govindarajan A, Helyer L, Easson A. Palliative surgical care. In: University of Toronto Surgical Oncology Manual. 2nd ed. 2015 Feb.

Darling G, Malthaner R, Dickie J, McKnight L, Nhan C, Hunter A, McLeod RS. Lung Cancer Expert Panel: Quality indicators for non small cell lung cancer operations with use of a modified Delphi Consensus panel. Ann Thorac Surg. 2014. April; 25.

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. Journal of the American Academy of Physician Assistants. 2015 Apr.

Dixon E, Buie WD, Heisse CP. Members of the Evidence Based Reviews in Surgery Group: What is the preferred surgery for perforated left sided diverticulitis? J Am Coll Surg. 2014. June; 218(6): 495-7.

Dube P, Sideris L, Law C, Mack L, Haase E, Giacomantonio C, Govindarajan A, Krzyzanowska M, Major P, McConnell Y, Temple W, Younan R, McCart JA. Guidelines on the use of cytoreductive surgery and HIPEC in patients with peritoneal surface malignancy: From the Canadian HIPEC Collaborative Group. Current Oncology. 2015 Feb.

Easson AM, Doria AS. Measurement (validity, reliability, responsiveness). In: Doria AS, Tomlinson G, Moineddin R, Beyene J. (eds), Introduction to Imaging Research. 2014. New York, New York, United States: Thieme Medical Publishers Inc. In: Oncology Rounds (Catton, P, eds). Snell Medical Communications, Montreal 2003: pp 5(3).

Evgin L, Acuna SA, Tanese de Souza C, Marguerie M, Lemay CG, Ilkow CS, Findlay CS, Falls T, Parato KA, Hanwell D, Goldstein A, Lopez R, Lafrance S, Breitbach CJ, Kirn D, Atkins H, Auer RC, Thurman JM, Stahl GL, Lambris JD, Bell JC, McCart JA. Complement inhibition prevents oncolytic vaccinia virus neutralization in immune humans and cynomolgus macaques. Molecular Therapy. 2015 Mar 25.

Gervais MK, Nessim C, Govindarajan A, McCart JA. Peritoneal surface malignancies. In: University of Toronto Surgical Oncology Manual. 2nd ed. 2015 Feb.

Govindarajan A, Rabeneck L, Yun L, Tinmouth J, Paszat LF, Baxter NN. Population-based assessment of the outcomes in patients with postcolonoscopy colorectal cancers. Gut. 2015 Mar 6.

Govindarajan A, Urbach DR, Kumar M, Li Q, Murray B, Juurlink D, Kennedy E, Gagliardi A, Sutradhar R, Baxter NN. Perioperative outcomes of daytime elective procedures performed by physicians who performed overnight medical care. New England Journal of Medicine. 2014 Dec.

Govindarajan A, Urbach DR, Kumar M, Li Q, Murray B, Juurlink D, Kennedy E, Gagliardi A, Sutradhar R, Baxter NN. Population-based assessment of the patterns of post-call medical care provided by Ontario physicians. 2015.

Halverson AL, Sellers MM, Billmoria KY, Hawn MT, Williams MV, McLeod RS, Ko CY. Identification of process measures to reduce post-operative readmission. J Gastrointestin Surg. 2014. June; 10(6).

Hameed U, Govindarajan A. Rectal cancer. In: Textbook of GI and Hepatobiliary Surgery. 2014 Sep. Jaypee Publishing.

Hamilton T, Dickson B and Gladdy R. Desmoid Fibromatosis and Dermatofibrosarcoma Protuberans. In: University of Toronto, Surgical Oncology Manual. Second ed. 2015. Springer.

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Han K, Cummings BJ, Lindsay P, Skliarenko J, Craig T, Le LW, Brierley J, Wong R, Dinniwell R, Bayley AJ, Dawson LA, Ringash J, Krzyzanowska MK, Moore MJ, Chen EX, Easson A, Kassam Z, Cho C, Kim J. Prospective Evaluation of Acute Toxicity and Quality of Life following IMRT and Concurrent Chemotherapy for Anal Canal and Perianal Cancer. Int J Radiat Oncol Biol Phys. 2014 Nov 1; 90(3): 587–594.

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Hernandez KG, Ezzat S, Morel CF, Swallow C, Otremba M, Dickson BC, Asa SL and Mete O. Familial pheochromocytoma and renal cell carcinoma syndrome: TMEM127 as a novel candidate gene for the association. Virchows Arch. 2015 Mar 24. PMID: 25800244. AID: 10.1007/s00428-015-1755-2 [doi].

Hughes J, Wang P, Alusi G, Shi H, Chu Y, Wang J, Bhakta V, McNeish I, McCart A, Lemoine N, Wang Y. Lister strain vaccinia virus with thymidine kinase gene deletion as a favourable backbone for development of next generation of oncolytic virus. Gene Therapy. 2015.

Jhananiee S, Siddiqui N, Victor JC, Mcleod RS, Govindarajan A. NSAID use and anastomotic leaks following elective colorectal surgery: A matched case-control study. Journal of Gastrointestinal Surgery. 2014 Aug; 18(8): 1391-7.

Kennedy ED, Milot L, Fruitman M, Al Sukhni E, Heine G, Schomocker S, Brown G, McLeod RS. Development and implementation of a synoptic MRI report for preoperative staging of rectal cancer on a population based level. Dis Colon Rectum. 2014. June; 57(6):700-708.

Kennedy ED, on behalf of the Rectal Cancer Alliance of Canada (RCAC). QuickSilver: A Phase II study using MRI criteria to identify "good prognosis" rectal cancer patients eligible for primary surgery. JMIR Research Protocols. 2015 Mar; 4(2).

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diagnosed with rectal cancer. Clinical Oncology. 2015 Apr; 27(4): 225-245.

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? Diseases of the Colon and Rectum. 2015.

MacNeill A, Ferguson P, Gupta A, Cattor C, Dickson B and Gladdy R. Retroperitoneal and Extremity Soft Tissue Sarcomas. In: University of Toronto, Surgical Oncology Manual. Second ed. 2015. Springer.

McKinnon T, Venier R, Dickson BC, Kabaroff L, Alkema M, Chen L, Shern JF, Yohe ME, Khan J, Gladdy RA. Kras activation in p53-deficient myoblasts results in high-grade sarcoma formation with impaired myogenic differentiation. Oncotarget. 2015 Jun 10; 6(16): 14220-14232.

Nadler A, McCart JA, Govindarajan A. Peritoneal carcinomatosis from colon cancer: A systematic review of the data for cytoreduction and intraperitoneal chemotherapy. Clinics in Colon and Rectal Surgery. 2014 Sep.

Nadler A, Pearsall EA, Victor JC, Aarts MA, Okrainec A, McLeod RS. Understanding Surgical Residents' Postoperative Practices and Barriers and Enablers to the Implementation of an Enhanced Recovery After Surgery (ERAS) Guideline. J Surg Educ. 2014. July-Aug 71(4):632-8.

O'Brien MA, Charles C, Lovrics P, Wright FC, Whelan T, Simunovic M, Kennedy ED, Grunfeld E. Enablers and barriers to using patient decision aids in early stage breast cancer consultations: a qualitative study of surgeons' views. Implementation Science. 2014 Nov 29; 9(1).

Pearsall E, Meghi Z, Pitzul KB, Aarts MA, McKenzie M, McLeod RS, Okrainec A. A qualitative study to understand the barriers and enablers in implementing an Enhanced Recovery after Surgery program. Ann Surg. 2014:1-5.

Platt J, Zhong T, Moineddin R, Booth GL, Easson AM, Fernandes K, Gozdyra P, Baxter NN. Georgraphic variation of immedicate and dealyed breast reconstruction utilization in Ontario, Canada and plastic surgeon availability: a population-based observational study. World Journal of Surgery. 2015 Apr 21.

Ripamonti CI, Easson AM, Gerdes H. Chapter 62 Malignant Bowel Obstruction. In: Bruera E, Higginson I, von Gunten C, Morita T (eds), Textbook of Palliative Medicine and Supportive Care. 2nd edition. 2015: 587-602. Boca Raton, United States: CRC Press Taylor & Francis Group.

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. Oncogene. 2014 Sep 1. PMID: 25174401. AID: 10.1038/onc.2014.275 [doi].

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Serrano P, Grant R, Berk T, Kim D, Al-Ali H, Cohen Z, Pollett A, Riddell R, Silverberg M, Koran P, May G, Gallinger S. Progression and management of duodenal neoplasia in familial adenomatous polyposis: a cohort study. Annals of Surgery. 2014.

Snelgrove R, 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. Diseases of the Colon and Rectum. 2015.

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Wong P, Hui A, Su J, Yue S, Gokgoz N, Xu W, Bruce J, Catton C, Wunder J, Andrulis I, Gladdy RA, Dickson B, O'Sul B. A Validated 6 micro-RNA Signature That Predicts for Distant Metastasis in Undifferentiated Pleomorphic Sarcomas. Clinical Cancer Research. 2015 Feb.

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, Gladdy 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 Apr 23.

Yang S, Alibhai SM, Kennedy ED, El-Sedfy A, Dixon M, Coburn N, Kiss A, Law CH. Optimal management of colorectal liver metastases in older patients: a decision analysis. HPB (Oxford). 2014; (16): 1031-1042.

Zeh HJ, Downs-Canner S, McCart JA, Guo ZS, Rao UN, Ramalingam L, Thorne SH, Jones HL, Kalinski P, Wieckowski E, O'Malley ME, Daneshmand M, Hu K, Bell JC, Hwang TH, Moon A, Breitbach CJ, Kirn DH, Bartlett DL. First-in-man study of western reserve strain oncolytic vaccinia virus: safety, systemic spread, and antitumor activity. Molecular Therapy. 2015 Jan 23; 23(1): 202-214.

#### **Invited Visits**

Gladdy, Rebecca: 10th Annual Canadian General Surgery Review, Toronto, Ontario, Canada, 27 Feb 2015. Presenter:



Soft Tissue Sarcomas.

Gladdy, Rebecca: National Cancer Institutes of Health, Center for Cancer Research, Bethesda, Maryland, United States, 24 Apr 2015. Invited Speaker: Validation of the Rhabdomyosarcoma Genome Using Mouse Mosaicism.

Kennedy, Erin D: American Society of Colon and Rectal Surgeons, Boston, Massachusetts, United States, May 2015. Speaker: Are patients willing to accept an increased risk of local recurrence for deferral of surgery relative to abdominal perineal resection following complete clinical response for low rectal cancer?

Kennedy, Erin D: Canadian Surgery Forum, Vancouver, British Columbia, Canada, Sep 2014. Invited Speaker: Colorectal Surgery Clinical Trial Session: Selective neo-adjuvant radiation for T3 rectal cancer.

McCart, Judith Andrea: 2015 International Symposium on Malignant Mesothelioma, Bethesda, Maryland, United States, 3 Mar 2015. Invited Speaker: Oncolytic therapy with targeted radiotherapy.

Swallow, Carol Jane: Society of Surgical Oncology 68th Annual Cancer Symposium, Houston, Texas, United States, 26 Mar 2015. Panelist: Soft tissue sarcoma tumor board: A case-based discussion of ongoing controversies.

#### **Research and Investigations**

A Randomized Phase III Trial Comparing Axillary Lymph Node Dissection to Axillary Radiation in Breast Cancer Patients (cT1-3 N1) who have Positive Sentinal Lymph Node Disease After Neoadjuvant Chemotherapy. *Koch A, Escallon J, McCready D, Reedijk M.* (Jul 2014 - Jun 2015)

Accelerated implementation diffusion of quality initiatives for rectal cancer across Canada using a multi-faceted knowledge translation strategy. Canadian Partnership Against Cancer (CPAC), Quality Initiatives for Diagnosis and Treatment of Cancer. Kennedy, E, Baxter N, Simunovic M, McLeod, RS. (\$903,000.00 Jan 2014 - Mar 2017).

Building Capacity for Provincial Lynch Syndrome Screening in Ontario. Ontario Institute for Cancer Research / Cancer Care Ontario, Health Services Research Program - KT-NET. Baxter N, Rabeneck L, Gagliardi A, Kennedy ED, Timmouth J, Pollett A, Gallinger S, Covelli A, Facey M. (\$148,572.00 Apr 2014 - Apr 2015).

Comparative effectiveness of novel imaging techniques in predicting feasibility of surgery in patients with peritoneal metastases from colorectal cancer. Ontario Ministry of Health and Long-Term Care, Innovation Fund. Govindarajan A, McCart A, Metser U, O'Malley M, Brar S. (\$157,726.00 Apr 2015 - Mar 2017).

Development of a Decision Rule for Discharging Patients following Colorectal Surgery based on Post-operative Serum C Reactive Protein and/or Procalcitonin Levels. Canadian Institutes of Health Research (CIHR). Mcleod R, Aarts MA, Marshall J, McCluskey S, Morris A, Okrainec A, Rotstein O, Stiel I. (\$489,000.00 2014 - 2015).

Implementation of an Enhanced Recovery after Surgery (iERAS) program. Council of Academic Hospitals of Ontario (CAHO), ARTIC. McLeod R, Okrainec A, Aarts MA, Gotlib L, Siddiqui N. (\$80,000.00 Jan 2014 - Dec 2014).

Improving the quality of oncofertility decision making among young women at risk of infertility during cancer survivorship. Canadian Cancer Society Research Institute. Baxter N, Kennedy E, Simmons C, Brezden-Masley C, Hicks L, Gupta A, Nathan P, Greenblatt E, Yee S,. (\$299,936.00 Feb 2014 - Mar 2017).

Portable intraoperative fluorescence imaging for real-time margin assessment and guidance during breast cancer surgery. Canadian Institutes of Health Research. Easson AM, DaCosta R, Done S, Leong W, Rosen C. (\$456,000.00 Sep 2014 - Sep 2017).

Precision Sarcoma Research Program for Soft Tissue Sarcoma (Personalized Precision Medical Treatment for Patients with Soft Tissue Sarcoma) at Mount Sinai Hospital. *Carlo Fidani Foundation*. *Wunder J, Gladdy RA, Andrulis I*. (\$1,500,000.00 Feb 2014 - Mar 2018).

Sub-Project: Knowledge to Action: Improving local therapy for young women with breast cancer across Canada. Canadian Breast Cancer Foundation / Canadian Institute of Health Research - Institute of Cancer Research, CBCF-CIHR Breast Cancer in Young Women Research Program. Baxter N, Simunovic M, Tyldesley S, Quan ML, Kennedy ED. (\$497,549.00 Jun 2014 - May 2019).

Sub-Project: SPOKE & GYPSY: Studies to Encourage Early Fertility Preservation Referral and to Predict Effects of Treatment on Fertility of Young Women with Breast Cancer. Canadian Breast Cancer Foundation / Canadian Institute of Health Research - Institute of Cancer Research, CBCF-CIHR Breast Cancer in Young Women Research Program. Warner E, Glass K, Foong S, Kennedy ED. (\$348,781.00 Jun 2014 - May 2019).

The role of centriolar proteins in cancer progression. Cancer Research Society (The). Kazazian K, Swallow CJ. (\$120,000.00 2014 - 2016).

Translational research resource for Benign Breast Cases. Hold'em for Life Research Fund and Revenue. Goodwin P, Woodgett J, Ennis M, Escallon J, Easson A, Leong W, Khokha R, Crystal P, Hofer S, O'Neill A, Zhong T. (Jan 2014 - Jul 2014).

Unraveling the rhabdomyosarcoma genome using mouse mosaicism. *Petro-Canada Lubricants (Petro Can)*. *Gladdy R*. (\$5,000.00 CAD, Apr 2015 - Mar 2016).

#### **Honours Received**

McLeod, Robin S: Robert Mustard Mentor of the Year Award, Division of General Surgery, University of Toronto, Dept of Surgery, Faculty of Medicine, Toronto, Ontario, Canada. 2014.



## Division of Orthopaedics

Dr. D. Backstein Associate Professor (Division Head)

Dr. P. Ferguson Associate Professor

Dr. A. Gross Professor

Dr. P. Kuzyk Assistant Professor
Dr. O. Safir Assistant Professor
Dr. T. Willett Assistant Professor

Dr. J.S. Wunder Professor

#### **Publications**

Amenabar T, Abdelrahman W, Hetaimish B, Kuzyk PR, Safir O, Gross AE. Use of the Cup Cage Construct for Reconstruction of Large Acetabular Defects and Pelvic Discontinuity. Cinical Orthopaedics and Related Research. 2015 Jan.

Bayley N, Khan H, Grosso P, Hupel T, Stevens D, Snider M, Schemitsch E, Kuzyk P. Prevalence and Predictors of Pseudotumor and Elevated Metal Ions Following Large-Diameter Metal-on-Metal THA. Clinical Orthopaedics and Related Research. 2015 Feb; 473(2): 477-84.

Drexler M, Dwyer T, Chakravertty R, Backstein D, Gross AE, Safir O. The outcome of modified extended trochanteric osteotomy in revision THA for Vancouver B2/B3 periprosthetic fractures of the femur. The Journal of Arthroplasty. 2014 Aug; 29(8): 1598-1604.

Dwyer T, Glover Takahashi S, Kennedy Hynes M, Herold J, Wasserstein D, Nousiainen M, Ferguson P, Wadey V, Murnaghan ML, Leroux T, Semple J, Hodges B and Ogilvie-Harris D. How to assess communication, professionalism, collaboration and the other intrinsic CanMEDS roles in orthopedic residents: use of an objective structured clinical examination (OSCE). Can J Surg. 2014 Aug;57(4):230-6.

Ferguson PC. CORR Insights((R)): Synthetic Mesh Improves Shoulder Function After Intraarticular Resection and Prosthetic Replacement of Proximal Humerus. Clin Orthop Relat Res. 2015 May;473(5):1735-6.

Fichman SG, Mäkinen TJ, Safir O, Vincent A, Lozano B, Kashigar A, Kuzyk PR. Arthroplasty Compared to Cephalomedullary Nailing for Unstable Pertrochanteric Hip Fractures: A Matched Case-Controlled Study. International Orthopaedics. 2015 Apr 6.

Garbedian S, Backstein D, Gross AE, Safir OA. Chapter 42 - Acetabular bone loss: Case presentations. In: Scuderi GR, Tria AJ Jr, Long WJ, Kang MN (eds), Techniques in Revision Hip and Knee Arthroplasty. 2014; Vol. 344-348. United States: Elsevier Saunders.

Garbedian S, Backstein D, Gross AE, Safir OA. Chapter 43 - Acetabular bone loss classification. In: Scuderi GR, Tria AJ Jr, Long WJ, Kang MN (eds), Techniques in Revision Hip and Knee Arthroplasty. 2014; Vol. 349-353.

Garbedian S, Backstein D, Gross AE, Safir OA. Chapter 44 - Recommended acetabular reconstruction options. In: Scuderi GR, Tria AJ Jr, Long WJ, Kang MN (eds), Techniques in Revision Hip and Knee Arthroplasty. 2014; Vol. 344-348. United States: Elsevier Saunders.

Garbedian S, Backstein D, Gross AE, Safir OA. Chapter 45 - Surgical techniques: Socket Removal. In: Scuderi GR, Tria AJ Jr, Long WJ, Kang MN (eds), Techniques in Revision Hip and Knee Arthroplasty. 2014; Vol. 359-362. United States: Elsevier Saunders.

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 May 28. PMID: 26018726. AID: 10.1245/s10434-015-4631-z [doi].

Hoogenes J, Mironova P, Safir O, McQueen SA, Abdelbary H, Drexler M, Nousiainen M, Ferguson P, Kraemer W, Alman B, Reznick RK and Sonnadara RR. Student-led learning: a new teaching paradigm for surgical skills. Am J Surg. 2015 Jan;209(1):107-14.

Kashigar A, Vincent A, Gunton M, Backstein D, Safir O, Kuzyk P. Predictors of Failure for Cephalomedullary Nailing of Proximal Femoral Fractures. Bone and Joint Journal. 2014 Aug; 96-B(8): 1029-1034.

Khanna V, Tushinski D, Drexler M, Backstein D, Gross A, Safir O, Kuzyk P. Cartilage Restoration of the Hip using Fresh Osteochondral Allograft: Resurfacing the Potholes. The Bone and Joint Journal. 2014 Nov 24; 96-B(11): 11-16.

Kuzyk P, Tangsataporn S, Vincent A, Abdelbary H, Safir O, Gross A. Risk factors for subsidence of a modular distal-tapered femoral implant used for revision total hip arthroplasty. The Journal of Arthroplasty. 2014.

Kuzyk PR. Bone allograft: Processing, options, risks/benefits and [relative] cost. COA Bulletin. 2015 Apr; Summer(109).

Lee PT, Lakstein DL, Lozano B, Safir O, Backstein D, Gross AE. Mid-to long-term results of revision total hip replacement in patients aged 50 years or younger. Journal of Bone & Joint Surgery. 2014 Aug 1; 96B(8): 1047-51.

Mäkinen TJ, Fichman SG, Gunton MJ, Woodside M, Safir O, Backstein D, Willett TL, Kuzyk PR. Periprosthetic supracondylar femoral fractures following knee arthroplasty: a biomechanical comparison of four methods of fixation. International Orthopaedics. 2015 Mar 17.

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. 2014 Dec.



Mäkinen TJ, Kuzyk PR. Osteotomies for Hip Joint Preservation in the Adult. In: Current Progress in Orthopedics. 2015 Apr; Vol. 2.

Mollon B, Griffin AM, Ferguson PC, Wunder JS and Theodoropoulos J. Combined arthroscopic and open synovectomy for diffuse pigmented villonodular synovitis of the knee. Knee Surg Sports Traumatol Arthrosc. 2014 Oct 12. PMID: 25308157. AID: 10.1007/s00167-014-3375-9 [doi].

Mollon B, Lee A, Busse JW, Griffin AM, Ferguson PC, Wunder JS, Theodoropoulos J. The effect of surgical synovectomy and radiotherapy on the rate of recurrence of pigmented villonodular synovitis of the knee: an individual patient meta-analysis. Bone Joint J. 2015 Apr;97-B(4):550-7.

Molyneux SD, Waterhouse PD, Shelton D, Shao YW, Watling CM, Tang QL, Harris IS, Dickson BC, Tharmapalan P, Sandve GK, Zhang X, Bailey SD, Berman H, Wunder JS, Izsvak Z, Lupien M, Mak TW, Khokha R. Hum somtic cell mutagenesis creates genetically tractable sarcomas. Nat Genet. 2014 Sep 10.

Nicholls F, Ng AH, Hu S, Janic K, Fallis C, Willett T, Grynpas M, Ferguson P. Can OP-1 stimulate union in a rat model of pathological fracture post treatment for soft tissue sarcoma? J Orthop Res. 2014 Oct;32(10):1252-63.

Raz G, Safir O, Backstein D, Lee P, Gross A. Distal Femoral Fresh Osteochondral Allografts: Follow-up at a Mean of Twenty-two Years. J Bone Joint Surg Am. 2014 Jul 2; 96(13): 1101-1107.

Rogers BA, Kuchinad R, Garbedian S, Backstein D, Gross AE, Safir OA. Cement Augmentation of the Acetabulum for Revision Total Hip Arthroplasty for Infection. The Journal of Arthroplasty. 2015 Feb; 30, #2: 270-271.

Rutkowski P, Ferrari S, Grimer RJ, Stalley PD, Dijkstra SPD, Pienkowski A, Vaz G, Wunder JS, Seeger LL, Feng A, Roberts ZJ, Bach BA. Surgical Downstaging in an Open-Label Phase II Trial of Denosumab in Patients with Giant Cell Tumor of Bone. Ann Surg Oncol. 2015 Jun 2.

Saidi K, Ben-Lulu O, Tsuji M, Safir O, Gross AE, Backstein D. Supracondylar periprosthetic fractures of the knee in the elderly patients: A comparison of treatment using allograft-implant composites, standard revision components, distal femoral replacement prosthesis. The Journal of Arthroplasty. 2014; 29: 110 - 114. 2014.

Schemitsch L, Schemitsch E, Kuzyk PR, Vicente M, McKee MD. Prognostic Factors for Reoperation Following Plate Fixation of Fractures of the Midshaft Clavicle. Journal of Orthopaedic Trauma. 2015 Jan.

Sonnadara R, Mui C, McQueen S, Mironova P, Nousiainen M, Safir O, Kraemer W, Ferguson P, Alman B, Reznick R. Response to the letter to the editor regarding: Reflections on competency-based education and training for surgical residents. Journal of Surgical Education. 2014; 71(5): 652-3.

Sonnadara R, Safir O, McQueen S, Hoogenes J, Mironova P, Drexler M, Abdelbary H, Nousiainen M, Ferguson P, Alman B, Kraemer W, Reznick R. Student-led learning: A new teaching paradigm for surgical skills. The American Journal of Surgery. 2015 Jan; 209(1): 107-114.

Sternheim A, Daly M, Qiu J, Weersink R, Chan H, Jaffray D, Irish JC, Ferguson PC and Wunder JS. Navigated pelvic osteotomy and tumor resection: a study assessing the accuracy and reproducibility of resection planes in sawbones and cadavers. J Bone Joint Surg Am. 2015 Jan 7;97(1):40-6.

Sternheim A, Drexler M, Kuzyk PR, Safir OA, Backstein DJ, Gross AE. Treatment of failed allograft prosthesis composites used for hip arthroplasty in the setting of severe proximal femoral bone defects. The Journal of Arthroplasty. 2014. Vol. 29, 1058-1062.

Tangsataporn S, Safir O, Vincent A, Abdelbary H, Gross AE, Kuzyk PR. Risk factors for subsidence of a modular tapered femoral stem used for revision total hip arthroplasty. The Journal of Arthroplasty. 2015 Jan 16.

Traub F, Heng M, Dickson BC and Ferguson PC. Thigh Pain in an 18-year-old Man. Clinical Orthopaedics and Related Research. 2014 Aug 15. PMID: 25123245. AID: 10.1007/s11999-014-3871-8 [doi]. 2014 Aug 15.

Wang z, Zhu B, Zhang M, Parikh H, Jia J, Chung CC, Sampson JN, Hoskins JW, Hutchinson A, Burdette L, Ibrahim A, Hautman C, Raj PS, Abnet CC, Adjei AA, Ahlbom A, Albanes D, Allen NE, Ambrosone CB, Aldrich M, Amiano P, Amos C, Andersson U, Andriole G Kr. Andrulis IL, Arici C, Arsian AA, Austin MA, Baris D, Barkauskas DA, Bassig BA, Beane Freeman LE, Berg CD, Berndt SI, Bertazzi PA, Biritwum RB, Black A, Blot W, Boeing H, Boffetta P, Bolton K, Boutron-Ruault MC, Bracci PM, Brennan P, Brinton LA, Brotzman M, Bueno-de-Mesquite HB, Burling JE, Butler MA, Cia Q, Cancel-Tassin G, Canzian F, Cao G, Caporaso NE, Carrato A, Carreon T, Carta A, Chang GC, Chang IS, Chang-Claude J, Che X, Chen CJ, Chen CY, Chen CH, Chen C, Chen KY, Chen YM, Chokkalingam AP, Chu LW, Clavel-Chapelon F, Colditz GA, Colt JS, Conti D, Cook MB, Cortessis VK, Crawford ED, Cussenot O, Davis FG, De Vivo I, Deng X, Ding T, Dinney CP, Di Stefano AL, Diver WR, Duell Ej, Elena JW, Fan JH, Feigelson HS, Feychting M, et al. Imputation and subset-based association analysis across different cancer types identifies multiple independent risk loci in the TERT-CLPTM1L region on chromosome 5p15.33. Hum Mol Genet. 2014 Jul 15.

#### **Invited Visits**

Backstein, David: American Academy of Orthopaedic Surgeons, Las Vegas, Nevada, United States, 25-26 Mar 2015. Invited Speaker: 1) Personalized Approach to the Painful Aseptic Total Knee Arthroplasty. 2) Video Techniques in Revision Total Knee Replacement Lecture pertaining to use of distal femoral replacement for periprosthetic fractures.

Backstein, David: Atlantic Provinces Orthopaedic Society, Halifax, Nova Scotia, Canada, 20 Sep 2014. Keynote Speaker: Revision Total Knee Replacement for Treatment of Periprosthetic Fractures.

Ferguson, Peter: American Council of Academic Plastic Surgeons, Scottsdale, Arizona, United States, 13 Apr 2015. Invited Speaker: A Recipe for Radical Curricular Change in Postgraduate Surgical Training.

Ferguson, Peter: Beijing Cancer Centre Sarcoma Symposium, Beijing, China, 14 Mar 2015. Visiting Professor: Building a Better Bone - Evolution of Endoprosthetic Design for Primary Bone Tumours.



Ferguson, Peter: Canadian Orthopaedic Association Symposium: Practice Management, Education and Regulation in Orthopaedics, Vancouver, British Columbia, Canada, 18-19 Jun 2015. Invited Speaker: 1) Assessment of Quality During Residency Training. 2) Giant Cell Tumour of the Distal Radius. 3) Entrustable Professional Activites (EPAs) in Orthopaedics: Simulation-Based Assessment of Competency.

**Ferguson, Peter:** Connective Tissue Oncology Society, Berlin, Germany, Oct 2014. Invited Speaker: The influence of time interval between preoperative radiation and surgical resection on the development of wound healing complications in extremity soft tissue sarcoma.

Ferguson, Peter: Dewar Club, San Francisco, California, United States, 6 Feb 2015. Speaker: Complex Reconstruction of the Acetabulum for Metastatic Disease.

Ferguson, Peter: Shenyang Cancer Centre Sarcoma Symposium, Shenyang, China, 15 Mar 2015. Visiting Professor: Building a Better Bone - Evolution of Endoprosthetic Design for Primary Bone Tumours.

Ferguson, Peter: Society for Surgery of the Alimentary Tract MAJA AND FRANK G. MOODY STATE-OF-THE-ART LECTURE, Washington, District of Columbia, United States, 18 May 2015. Keynote Speaker: A Recipe for Radical Curricular Change in Postgraduate Surgical Training.

Gross, Allan: 44th Annual Arthroplasty Course - Managing the Key Challenges of Innovation: Introduction, Evaluation and Failure, Harvard Medical School Department of Continuing Education, Cambridge, Massachusetts, United States, 9 Oct 2014. Presenter: 1) Optimum femoral fixation for major bone loss 2) The role of cages in revision arthroplasty of the acetabulum.

Gross, Allan: Barcelona Hip Meeting Committee - Tomas Guerrero, School of Medicine, Universidad Autonoma de Madrid, Barcelona, Spain, Nov 2014. Invited Speaker: 1) Cage reconstruction for acetabular revision: technique & results 2) Hip fusion conversion: step by step 3) PFA for revision arthroplasty of the hip 4) The Down Syndrome patient: not a downer 5) The role of trabecular metal for revision arthroplasty of the acetabulum.

Gross, Allan: Current Concepts in Joint Replacement - The Journey Continues. Current Concepts Institute, Iguassu Falls, Brazil, 17 Sep 2014. Presenter: 1) Hip fusion conversion: Step by step 2) The dysplastic hip: Not for the shallow surgeon 3) The role of acetabular revision 4) Trabecular metal augment use in revision.

Gross, Allan: Current Concepts Institute, 31st Annual Current Concepts in Joint Replacement Winter 2014, Orlando, Florida, United States, Dec 2014. Presenter: 1) The present role of cages: "don't fence me in. 2) Trabecular metal augments for acetabular revision.

Gross, Allan: Great Expectations North 2014: Stryker Recon and Trauma Symposium, Stryker Canada, Ottawa, Ontario, Canada, Oct 2014. Presenter: Status of revision arthroplasty of the hip.

Gross, Allan: Mexican Hip Society, XV International Meeting, Puerto Vallarta, Mexico, 12 Feb

2015. Invited Speaker: 1) The Difficult Primary Hip Replacement. 2) THR for Dysplasia 3) THR for Down Syndrome 4) The Present Role of Structural Allografts in Revision Arthroplasty of the Acetabulum 5) The Role of Cages in Revision Arthroplasty of the Acetabulum 6) The Role of Trabecular Metal for Revision Arthroplasty of the Acetabulum.

Gross, Allan: The Hip Society 2014 Summer Meeting, Durham, North Carolina, United States, 12 Sep 2014. Presenter: Use of the cup cage construct for reconstruction of large acetabular defects and pelvic discontinuity.

Kuzyk, Paul: Canadian Arthroplasty Society 2014 Annual Meeting, Toronto, Ontario, Canada, 22 Nov 2014. Presenter: Up to Five Year Follow-Up of a Focal Constrained Acetabular Liner used for Revision Total Hip Arthroplasty.

Kuzyk, Paul: Canadian Orthopaedic Association 2015 Annual Meeting, Vancouver, British Columbia, Canada, 19 Jun 2015. Presenter: Up to Five Year Follow-Up of a Focal Constrained Acetabular Liner used for Revision Total Hip Arthroplasty.

Safir, Oleg: AAOS, Las Vegas, Nevada, United States, 27 Mar 2015. Presenter: Long Term Results Of Treating Large Post-traumatic Tibial Plateau Lesions With Fresh Osteochondral Allografts.

Safir, Oleg: COA, Vancouver, British Columbia, Canada, 18-19 Jun 2015. Presenter: 1) Up to Five Year Follow-Up of a Focal Constrained Acetabular Liner used for Revision Total Hip Arthroplasty. 2) A biomechanical comparison of four methods of treatment for periprosthetic distal femur fractures. 3) Comparison of arthroplasty to cephalomedullary nailing for pertrochanteric hip fractures.

Safir, Oleg: V International Conference "INNOVATIVE EDUCATIONAL TECHNOLOGIES IN MEDICINE", Moscow, Russian Federation, 26 Sep 2014. Invited Speaker: Competency Based Curriculum.

Wunder, Jay Steven: Canadian Orthopaedic Association, Vancouver, British Columbia, Canada, 12-13 Jun 2015. Presenter: 1) Navigated geometric bone tumour resections: A sawbones study assessing accuracy reproducibility of resection planes. 2) Giant cell tumor of the distal radius: Is resection better? 3) Oncologic outcome for younger patients with chondrosarcoma. 4) Oncologic outcome for patients with myxofibrosarcoma. 5) Does extended curettage for the treatment of giant cell tumor offer adequate therapeutic profile in the era of latest adjuvant options?

Wunder, Jay Steven: Connective Tissue Oncology Society, Berlin, Germany, 15-17 Oct 2014. Invited Speaker: 1) Optimism, expectations and satisfaction in the treatment of soft tissue sarcoma patients. 2) The influence of time interval between preoperative radiation and surgical resection on the development of wound healing complications in extremity soft tissue sarcoma. 3) Navigated joint sparing bone tumor resections.

Wunder, Jay Steven: EMSOS 2015 - 28th Annual Meeting of the European Musculo-Skeletal Oncology Society, Athens, Greece, 1-3 May 2015. Distinguished Speaker: 1) Identification of CD146 as a marker of tumor-propagating cells in human sarcomas leads to novel treatment opportunities. 2) Navigated joint sparing bone tumor resections. 3) Efficacy of Denosumab with special reference to its role in joint preservation as an adjuvant in the management of giant cell tumor of bone. 4) Giant cell tumor of the distal radius: is resection better?



Wunder, Jay Steven: McGill University, Montreal, Canada, 14 May 2015. Visiting Professor: 1) Soft Tissue Sarcoma: The Therapeutic Ratio. 2) From the Lab to the Mouse to the Patient: Advances in Orthopaedic Oncology. 3) Cemented vs Unemented Stems in Oncology: A Toronto/Montreal Rivalry.

Wunder, Jay Steven: McGill University, Montreal, Canada, 15 May 2015. Visiting Professor: Cemented vs Uncemented Stems in Oncology: A Toronto/Montreal Rivalry.

Wunder, Jay Steven: Musculoskeletal Tumor Society AAOS, Las Vegas, United States, 28 Mar 2015. Invited Speaker: Clinical and Translational Molecular Data of Denosumab in GCT.

#### **Research and Investigations**

Development and Validation of a Novel Motion Tracking Instrument for Assessing Task Performance and Skill Acquisition. *Natural Sciences and Engineering Research Council of Canada (NSERC). Sonnadara R*, Oleg S, Matsumoto E. (2014).

Engineering of irradiation-sterilized skeletal allografts for improved clinical outcomes. CIHR. Willett T, Sone ED. (\$100,000.00 2014-2015).

Investigation of Genetic Alterations and Drug Sensitivities in Undifferentiated Pleomorphic Sarcomas and Corresponding Clinical Characteristics. Wunder I, Andrulis I, Shlien A. (\$750,000.00 CAD, May 2015 - Apr 2016).

PelvAssist<sup>TM</sup> Limited Release Trial. Avenir Medical Inc. Kuzyk P, Backstein D, Safir O, Wolfstadt J. (Apr 2014 - Apr 2015).

Prophylactic Antibiotic Regimens in Tumor Surgery (PARITY). Canadian Institutes of Health Research (CIHR). Ghert M, Anderson M, Balach T, Baptista A, Bhandari M, Beckinsale T, Carmody E, Clarkson P, Clayer M, Cummings J, Deheshi B, Doung Y, Ferguson P, Galliserra M, Gebhardt M, Geller D, Goodman M, Gortzak Y, Grimer R, Guyatt G, Healey J, Hettwer W, Holt G, Isler M, Laitinen M, Miller B, Mottard S, Nystrom L, O'Shea T, Puri A, Randall L, Reimer N, Schwab J, Thabane L, Turcotte R, Weiss K, Werier J, Wunder J. (\$1,248,043.19 CAD, Oct 2014 - Sep 2019).

#### **Honours Received**

Ferguson, Peter: RCPSC/AMS Donald Richards Wilson Award, Royal College of Physicians and Surgeons of Canada. Dept of Surgery, Faculty of Medicine. Jul 2014 - Jun 2015.

Gross, Allan: Award of Fellowship Ad Hominem, The Royal College of Surgeons of Edinburgh, Birmingham, Edinburgh, City of, United Kingdom. Oct 2014

Safir, Oleg: Faculty of Medicine Awards for Excellence in Postgraduate Medical Education – Development & Innovation, University of Toronto, Toronto, Ontario, Canada. Recognition of Excellence in Education for Surgical Prep Camp. 2014.

# Division of Urology

Dr. K. Jarvi	Professor (Division Head)
Dr. K.C.L. Lo	Associate Professor
Dr. A. Zlotta	Professor

#### **Publications**

Bhindi B, Kulkarni GS, Finelli A, Alibhai SM, Hamilton RJ, Toi A, van der Kwast TH, Evans A, Hersey K, Jewett MA, Zlotta AR, Trachtenberg J, Fleshner NE. Obesity Is Associated with Risk of Progression for Low-risk Prostate Cancers Managed Expectantly. Eur Urol. 2014. 2014; 66(5):841-8.

Bhindi B, Locke J, Alibhai SM, Kulkarni GS, Margel DS, Hamilton RJ, Finelli A, Trachtenberg J, Zlotta AR, Toi A, Hersey KM, Evans A, van der Kwast TH, Fleshner NE. Dissecting the Association Between Metabolic Syndrome and Prostate Cancer Risk: Analysis of a Large Clinical Cohort. Eur Urol. 2014. 2014; 67(1):64-70.

Bhindi B, Mamdani M, Kulkarni GS, Finelli A, Hamilton RJ, Trachtenberg J, Zlotta AR, Evans A, van der Kwast TH, Toi A, Fleshner NE. Impact of the U.S. Preventive Services Task Force Recommendations Against PSA Screening on Prostate Biopsy and Cancer Detection Rates. J Urol. 2014. 193(5):1519-24.

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#### **Invited Visits**

Jarvi, Keith: American Society of Andrology, Salt Lake City, Utah, United States, 20 Apr 2015. Chair: Special Concerns for Older Fathers.

Lo, Kirk Cheng-Lun: American Society of Andrology, Utah, United States, 18 Apr 2015. Invited Speaker: Building and Maintaining Successful Collaborations.

Lo, Kirk Cheng-Lun: American Urology Association Annual Meeting, New Orleans, Louisiana, United States, 17 May 2015. Invited Speaker: Critical Discussion: Fertility Preservation in Cancer Patients.

Lo, Kirk Cheng-Lun: German Urological Society, Duesseldorf, Germany, 2 Oct 2014. Speaker: A 3-gene DNA-methylation biomarker panel sensitively detects bladder cancer and discriminates between high-grade and low-grade disease.

Zlotta, Alexandre: Friends of Israel 2nd Urological Symposium (FOIU), Tel-Aviv, Israel, 2-3 Jul 2014. Speaker: 1) Pearls of Surgery: Invasive Bladder Cancer - Lymph Node Dissection. 2) Evolving concepts in adjuvant therapy: prostate, bladder, kidney. 3) Radical cystectomy in patients responding/not responding to chemotherapy. 4) Chair: Cystectomy in the elderly: Geographical trends and disparities.

Zlotta, Alexandre: International Bladder Cancer Network (IBCN), Vancouver, British Columbia, Canada, 26 Sep 2014. Speaker: Whole transcriptome analysis of paraffin embedded BC by RNAseq.

Zlotta, Alexandre: Issues & Controversies in Urologic Cancer (ICUC), British Columbia, Canada, 20-21 Feb 2015. Invited Speaker: Intravesical Therapy for Bladder Cancer.

Zlotta, Alexandre: JSBIT, Tôkyô [Tokyo], Japan, 21 Nov 2014. Speaker: Treatment of BCG failure in NMIBC.

Zlotta, Alexandre: Society of Urologic Oncology, Maryland, United States, 5 Dec 2014. Moderator: Bladder Cancer Session II.

**Zlotta, Alexandre:** XXXIII Congreso CAU, Uruguay, 24 Nov 2014. Speaker: Prostate Cancer: 1) Screening for early detection and staging. 2) Active surveillance and focal treatment. 3) Treatment of locally advanced disease. 4) Management of hormone resistant prostate cancer.

#### **Research and Investigations**

Advancing precision medicine for prostate cancer through transcriptomics. Prostate Cancer Canada. Zlotta A, Wrana J, van der Kwast T, Azad A. (\$200,000.00 CAD, Jul 2014 - Jun 2016).

Changing the Paradigm for Male Fertility Treatment - Standardized Automated Platform for Sperm Retrieval. *Physicians Services Incorporated (PSI)*. Lo K, Librach C, Moskovtsev S, Gauthier-Fisher A, Diamandis E, Drabovich A. (\$169,569.00 CAD, Mar 2015 - Feb 2017).

Changing the Paradigm for Male Fertility Treatment - Standardized Automated Platform for Sperm Retrieva. AHSC AFP Innovation Fund. Lo K, Librach C, Moskovtsev SI, Gauthier-Fisher A, Drabovich A, Diamandis E. (\$166,718.00 CAD, Apr 2015 - Mar 2017).

Elucidating the interactome of TEX101, a human testis-specific protein, and its implications in fertilization. Canadian Institutes of Health Research (CIHR). Jarvi K. (Sep 2014 - Sep 2017).

Establishing a biological network strategy for personalizing prognosis in non-muscle invasive bladder cancer. Canadian Cancer Society. Zlotta A, Wrana J, van der Kwast T, Azad A, Kulkarni K, Blencowe B, Morris Q. (\$1,249,950.00 CAD, Feb 2014 - Feb 2019).

Genomics of Spermatogenic Impairment. National Institutes of Health. Conrad D, Aston KI, Carrell DT, Jarvi K. (\$142,480.00 USD, Sep 2014 - May 2019).

High Quality Sperm Selection for Assisted Reproductive Technology. Canadian Institutes of Health Research (CIHR). Sinton D, Jarvi K, Mullen JBM, Zini AS. (\$159,904.00 CAD, Apr 2015 - Mar 2016).

Identifying novel markers to non-invasively detect and grade prostatic inflammation. MaRS Innovation, Medical Sciences Proof-of-Principle. Jarvi K, Diamandis EP, Mullen B, Drabovich A. (\$25,000.00 CAD, Mar 2014 - Feb 2015).

Improving Access to Standardized Fertility Preservation Information in Pediatric Oncology: a 1 Year Pilot Knowledge Translation Intervention. *Pediatric Oncology Group of Ontario (POGO)*. *Lo KCL*, *Lorenzo A*, *Gupta A*, *Barwick M*, *Hadipour-Lamehsari S*. (\$14,961.00 CAD, Jul 2014 - Jun 2015).

Improving access to standardized information on fertility preservation in pediatric oncology: A multi-centre controlled trial comparing two knowledge translation interventions for post- pubertal boys. C17 - children's cancer blood disorders, C17 Operating Grant. Lorenzo A, Gupta A, Barwick M, Hadipour-Lamehsari S, Allen L, Lo K. (\$195,700.00 CAD, Jul 2014 - Jun 2016).

Novel Prostate Cancer Biomarkers. The W. Garfield Weston Foundation. Jarvi K. (\$22,500.00 CAD, Nov 2014 - Nov 2015).

Promoting Physical and Mental Health in Men Facing Fertility Issues. (Co-Investigator). Canadian Institutes of Health Research (CIHR). Boy's and Men's Health. Lo KCL, Zelkowitz P, Dr. Benard, Dr. Chan, Da Costa D, Dr. Dennis, Dr. Ells, Dr. Feeley, Dr. Joseph, Dr. Loiselle, Dr. Rosberger, Dr. Semenic, Dr. Takefman, Dr. Tulandi, Dr. Holzeris. (\$1,265,478.00 CAD, Nov 2014 - Apr 2019).

Randomized Control Trial of the Use of Botox to Treat Chronic Scrotal Pain. *Allergan Inc. Jarvi K, Gordon A*. (\$117,000.00 CAD, Sep 2014 - Aug 2016).

Zlotta, Alexandre: Best Poster Award, European Association of Urology, Stockholm, Sweden. Fine-mapping of the Kallikrein region and its role in prostate cancer aggressiveness: Results from a Canadian cohort and the European Randomized Study for Prostate Cancer Screening. 2014

Zlotta, Alexandre: Basic Science Research Award, University of Toronto/2014 Charles J. Robson Research Day, Canada. Associated with (mentor) Basic Science Research Award -1st Prize A non-invasive urine-based epigenetic urinary biomarker panel for the detection of bladder cancer and the discrimination of high-grade and low-grade disease. 2014 -



North York General Hospital Lloyd Smith, Surgeon in Chief

This is the first report for North York General Hospital to be included in the University of Toronto, Department of Surgery Annual report. North York General Hospital is a busy community teaching hospital. The hospital is a very popular choice for learners of all types, but in particular for those interested in surgery. The hospital has been among the most requested rotations for general surgery residents over the last number of years.

The Division of General Surgery is our largest division and consists of twelve surgeons with various subspecialty interests. The division head is Dr. Nancy Down. The pillars of our division consist of breast cancer, GI oncology, abdominal wall reconstruction, and acute care surgery (ACS). The number of residents has been steadily increasing based on very strong evaluations of the program. Based on the positive feedback, we have implemented new core rotations in ACS and breast surgery. This year Dr. Peter Stotland won the Bob Mustard Mentorship Award which is given by all the final-year general surgery residents to the staff surgeon who provided the most mentorship to them. Dr. Stan Feinberg is a former winner of this same award and is currently the Assistant Program Director for the University of Toronto, Division of General Surgery. Dr. Brian Pinchuk organized a very well received mock oral exam session for the graduating residents. The breast cancer group under Dr. Nancy Down recruited Dr. Fahima Osman to join our division. Fahima has an interest in oncoloplastic breast surgery. This same group was the first in the GTA to start using radioactive seed localization for nonpalpable breast lesions.



The Division of Plastic Surgery is headed by Dr. Bernd Neu. It consists of six plastic surgeons who provide full-service plastic surgery. The group recruited Dr. Ron Somogyi this year to formalize a breast reconstruction program. Plans are formulated to start a microvascular free flap program in the near future.

The Division of Orthopaedics is one of the busiest in the city. The division head is Dr. Hossein Mehdian. The division consists of eight orthopaedic surgeons with subspecialty interests in hip and knee arthroplasty, shoulder and upper extremity, foot and ankle, and sports orthopaedics. They perform approximately 1400 hip and knee replacements annually. The group along with our Anaesthesia Department started a program of same-day discharge for shoulder arthroplasty patients this year.

The Division of Urology is a busy clinical division of five surgeons. The division head is Dr. Roger Buckley. The division offers a very popular elective for urology residents. The group is well known for advanced MIS urology. The group started an Acute Care Surgery (ACS) program in Urology this year with protected daytime OR access two days per week for urgent and emergency cases.

Overall this has been a very good year for us at NYGH. We are looking forward to the challenges and opportunities that this next year will bring.

#### Farewell Dinner for Dean Whiteside





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. 2015 marks the establishment of a unique outpatient surgical teaching clinic. Developed in parallel with the establishment of a general surgery 'acute care service' the 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. This is felt to be an excellent longitudinal educational experience that prepares trainees for transition to surgical practice.

#### Division Heads:

General Surgery	Paul Sullivan
Thoracic Surgery	Maurice Blitz
Orthopedic Surgery	Amr El Maraghy
Plastic Surgery	Craig Fielding

#### **Education**

Dr. Tom Harmantas (General Surgery), and Dr. Amr El Maraghy (Orthopedic Surgery) were promoted to the level of Associate Professor.

Dr. Shiva Jayaraman was director of this year's Canadian Surgical Forum held in Quebec City.

Dr. Chris Compeau was appointed to chair of the Thoracic Surgery Royal College examination committee.

Dr. Kyle Wanzel (Plastic Surgery) was a recipient of the 'Above and Beyond' surgical award.

#### Divisional teaching award winners 2014:

General/thoracic surgery - Dr. M. Blitz

Urology - Dr. A. Chawla

Plastic surgery - Dr. R. Levine

Orthopedic surgery - Dr. A. El Maraghy



# Division of General Surgery

Dr. C. Compeau	Assistant Professor
Dr. T.A. Harmantas	Associate Professor
Dr. R.S. Hart	Lecturer

Dr. S. Jayaraman Assistant Professor

Dr. D.R. Lindsay Lecturer

Dr. P.A. Sullivan Lecturer (Division Head)

# **Division of Orthopaedics**

Dr. W.A. El Maraghy	Assistant Professor (Division Head)
Dr. M. Kliman	Lecturer
Dr. M. Roscoe	Assistant Professor
Dr. G. Vincent	Assistant Professor
Dr. M. Wood	Lecturer

# Division of Plastic and Reconstructive Surgery

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istant Professor
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istant Professor
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# Division of Thoracic Surgery

Dr. Maurice Blitz	Division Head
Dr. Michael Ko	



St. Michael's Hospital Surgeon-in-Chief: Dr. Ori D. Rotstein

#### **Division Heads:**

Cardiac Surgery: Dr. David Latter
General Surgery: Dr. Nancy Baxter
Neurosurgery: (Interim) Dr. Julian Spears
Orthopaedic Surgery: Dr. Tim Daniels
Urology: Dr. Kenneth Pace

Vascular Surgery: Dr. Mohammed Al-Omran

In April, St. Michael's Hospital officially broke ground on a new construction project, The Peter Gilgan Patient Care Tower. This will be a 17-storey patient care tower that will house many patient care areas including areas for those that are critically ill. We have begun the planning for our new state–of–the-art operating rooms. There will also be renovations to the existing Shuter, Bond, and Cardinal Carter buildings that will enlarge and modernize the current size of the Emergency Department, as well as enhance some other patient care areas. This past year, St. Michael's Hospital and our partners have been working hard to implement the goals and objectives of our 2015-2018 strategic plan. This plan focuses on our vision of leadership in urban health and focuses on three patient priority areas such as caring for our critically ill, providing comprehensive care to our urban community, and advancing systems of care for disadvantaged patients.

We welcomed two new faculty members to St. Michael's Hospital this past academic year. Dr. Adena Sheer joined the Division of General Surgery. Adena completed her general surgery residency at the University of Ottawa before embarking on a Surgical Oncology Fellowship at the University Toronto. As part of her fellowship she training in Paris, France, gaining experience in oncoplastic breast surgery. Her area of clinical expertise is in breast surgical oncology and oncoplastic breast surgery. Her research focuses is on decision support and knowledge translation with emphasis on shared decision making.

Dr. Elisa Greco joined the Division of Vascular Surgery. Dr. Greco completed her general surgery residency, followed by a residency and fellowship in Vascular Surgery through the University of Toronto. During that time she completed a research fellowship and obtained her Master's Degree in Education through the Ontario Institute for Studies in Education at the University of Toronto. Dr. Greco's clinical focus is renal access, wound care and limb salvage, open and endovascular intervention for peripheral arterial disease. Her research interests include vascular enhanced recovery, research in education, and wound management of diabetic foot ulcers.



In December 2015, Dr. Vern Campbell retired. Dr. Campbell joined the Department of Surgery at St. Michael's Hospital in 2005 when the Toronto East General Hospital Division of Vascular Surgery amalgamated with Division of Vascular Surgery at St. Michael's Hospital. Dr. Campbell had a natural talent for teaching, and focused his clinical practice on access surgery for hemodialysis patients. His research interest was in the area of improving outcomes. We wish him all the best as he embraces retirement.

This year we celebrated the 10th 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. Ori Rotstein won the Donald J. Currie Teaching Award in Undergraduate Education; Dr. Jesse Wolfstadt won the McGooey Teaching Award in Orthopaedic Surgery; Dr. Michael McKee won the William Horsey Postgraduate Teaching Award; Dr. Michael Cusimano won the Jameel Ali Award in Continuing Education Award in Surgery; Dr. Daniel Abramowitz won the Leo J. Mahoney Resident Teaching Award and Dr. R. John Honey was honoured with the Squires-Hyland Trust, James Waddell Mentoring Award. Other Hospital awards such as the 2015 St. Michael's Hospital Complete Physician Award was awarded to Dr. Kenneth Pace. Many other faculty have won various awards and accolades in the areas of teaching, clinical, and research. In the research realm, Dr. Teodor Grantcharov was awarded a Canada Research Chair in Simulation and Surgical Safety. Drs. Emil Schemitsch, Aaron Nauth and Mike McKee were awarded a CIHR Operating Grant, and Dr. Joao Rezende was awarded a CIHR Proof of Principle Grant. Dr. Nancy Baxter has received the Institute of Health Services and Policy Research Article of the Year from the Canadian Institutes of Health Research. In the clinical realm, Dr. Mark Peterson and his team were the first in North America to replace a narrowed aortic valve through a neck incision, rather than the chest or groin.

Six of our faculty members were successfully promoted this year. Dr. Nancy Baxter, Dr. Tim Daniels, Dr. Teodor Grantcharov, Dr. Wolfgang Kuebler and Dr. David Latter have all been promoted to the rank Full Professor. Promoted to the rank of Associate Professor was Dr. Tom Schweizer.

As we move into the next academic year, we look forward to the opportunities and collaborations with our partners.

# Division of Cardiac Surgery

Dr. D. Bonneau Associate Professor

Dr. L.E. Errett Professor

Dr. D.A. Latter Associate Professor (Division Head)

Dr. M. Peterson Assistant Professor

Dr. S. Verma Professor

#### **Publications**

Al-Jughiman M, Yanagawa B, Rondi K, Dalamagas C, Peterson MD, Bonneau D. Acute Type A Dissection Repair in an Achondroplastic Dwarf. Aorta. 2014 Aug; 2(4): 143-146.

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#### **Invited Visits**

Peterson, Mark: Canadian Cardiovascular Society, Vancouver, British Columbia, Canada, 27 Oct 2014. Chair: AORTA Chair of the Aorta oral session at the Canadian Cardiovascular Congress 2014.

Peterson, Mark: Faculty at 25th Annual International Symposium on Adult Congenital Heart Disease, Faculties of Oregon Health & Science University, Cincinnati Children's Hospital Medical Center, University of Cincinnati, University Health Network, University of Toronto, Toronto, Ontario, Canada, 4 Jun 2015. Invited Speaker: Surgical Approaches to Hereditary Aortopathies: When is Surgery Indicated and What are the Surgical Options?

Verma, Subodh: Canadian Cardiovascular Congress, Vancouver, British Columbia, Canada, 27 Oct 2014. Presenter: Contemporary Approach to Bicuspid Aortopathy.

Verma, Subodh: Critical update in diabetes and cardiovascular disease, Montreal, Quebec, Canada, 6 Sep 2014. Invited Speaker: Glycemic improvements with bile acid sequestrants.

Verma, Subodh: University of British Columbia Agents of Change Research Symposium, Vancouver, British Columbia, Canada, 26 Sep 2014. Invited Speaker: Breast Cancer Genes and Cardiovascular Regulation: Common Pathways.

#### Research and Investigations

Molecular pathology of cardiovascular disease: understanding how gene expression is perturbed in clinical samples. Canada Foundation for Innovation (CFI), John R. Evans Leaders Fund. Verma, S, Marsden PA. (\$376,643.00 CAD, Jul 2014 - Jul 2018).

## Division of General Surgery

Dr. N. Ahmed	Associate Professor

Dr. J. Ali Professor

Dr. N. Baxter Associate Professor (Division Head)

Dr. J.M.A. Bohnen Professor

Dr. M.J. Burnstein
Dr. S. de Montbrun
Dr. R. George
Dr. T. Grantcharov
Associate Professor
Associate Professor
Associate Professor
Associate Professor

Dr. A. Kapus Professor

Dr. W. Kuebler Associate Professor
Dr. B. Lawless Assistant Professor

Dr. J.C. Marshall Professor

Dr. J. Rezende-Neto Associate Professor

Dr. S. Rizoli, Professor
Dr. O. Rotstein Professor

Dr. A.S. Scheer Assistant Professor

Dr. J.S. Simpson Lecturer

Dr. K. Szaszi Associate Professor

#### **Publications**

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#### **Invited Visits**

Baxter, Nancy: American College of Surgeons (ACS), Outcomes Research Course, Chicago, Illinois, United States, 3-6 Dec 2014. Faculty: 1) Getting Started: Funding and Infrastructure. 2) Where Outcomes Research is Heading: Panel Discussion. 3) Work in Progress Sessions (WIPs). 4) Clinical Practice Guidelines.

Baxter, Nancy: Canadian General Surgery Review Program, Toronto, Ontario, Canada, 1 Mar 2015. Invited Speaker: Colon Cancer.

Baxter, Nancy: Cancer Care Ontario, Toronto, Ontario, Canada, 13 Feb 2015. Invited Speaker: Improving the quality of oncofertility decision-making among young women at risk of fertility during cancer survivorship Psychosocial Oncology Rounds.

Baxter, Nancy: CBC, Toronto, Ontario, Canada, 18 Sep 2014. Invited Speaker: Interview: Mayor Ford's diagnosis. URL: http://www.cbc.ca/player/News/Canada/Toronto/ID/2521806769/

Baxter, Nancy: Gastrointestinal Cancers Symposium, San Francisco, California, United States, Jan 2015. Invited Speaker: Case One: Challenging Cases of the Colon, Rectum and Anus.

Baxter, Nancy: Ontario Association of Gastroenterology 18th Annual Conference, Niagara-on-the-Lake, Ontario, Canada, 26 Oct 2014. Invited Speaker: Update on QBP.

Baxter, Nancy: Ontario Association of General Surgeons, Toronto, Ontario, Canada, 1 Nov 2014. Invited Speaker: Surgery for Diverticulitis: When and How in 2014. URL: http://www.oags.org/OAGS\_program2014web.pdf

Baxter, Nancy: The Christie School of Oncology, Manchester, United Kingdom, 4 Jul 2014. Invited Speaker: 1) Introduction of Surgical Safety Checklists in Ontario, Canada. 2) Data mining: An example of issues and methodologies when introducing surgical safety techniques in Ontario.

Baxter, Nancy: Tripartite Colorectal Meeting, Birmingham, United Kingdom, 2 Jul 2014. Invited Panelist: ACPGBI modified delphi exercise to prioritize research questions. URL: http://www.tripartite2014.org/programme/2-july/

de Montbrun, Sandra: American College of Surgeons, Clinical Congress, San Francisco, California, United States, 29 Oct 2014. Speaker: Establishing passing score for technical performance in surgery: Lessons learned from a ten year experience of resident assessment.

de Montbrun, Sandra: Royal College International Consensus Meeting - The Retreat, San Francisco, California, United States, 26 Oct 2014. Invited Speaker: Assessment for Certification.

George, Ralph: Canadian Partnership Against Cancer Corporation, Toronto, Ontario, Canada, 13 Nov 2014. Breast Cancer Wait Times Workshop.

George, Ralph: Huntsville District Memorial Hospital, Huntsville, Ontario, Canada, 27 May 2015. Invited Speaker: Challenges in treating breast cancer in young and elderly woman.

George, Ralph: Ontario Association of General Surgeons, Toronto, Ontario, Canada, 1 Nov 2014. Invited Speaker: Breast Surgery and Management of the Axilla.

George, Ralph: Ontario Association of Radiologists, Toronto, Ontario, Canada, 18 Oct 2014. Invited Speaker: Post Cosmetic Surgery: Imaging Expectations.

George, Ralph: Southwestern Ontario Surgical Association Annual Meeting, Ontario, Canada, 21 Nov 2014. Invited Speaker: Management of the Axilla and Margins.

Grantcharov, Teodor: American College of Surgeons Consortium of Accredited Educational Institutions, Chicago, Illinois, United States, 13 Mar 2015. Invited Speaker: Systems for Summative Assessment in General Surgery.

Grantcharov, Teodor: Bulgarian Surgical Society, Sofia, Sofia, Bulgaria, 24 Oct 2014. Keynote Speaker: Laparoscopic treatment of Gastric cancer.

Grantcharov, Teodor: Danish Surgical Society Annual Meeting, Copenhagen, København City, Denmark, 14 Nov 2014. Keynote Speaker: Impact of training on clinical performance, safety and healthcare costs.

Grantcharov, Teodor: European Association of Endoscopic Surgery, Bucharest, Bucuresti, Romania, 6 Jun 2015. Invited Speaker: Assessment of surgical competency.

Grantcharov, Teodor: European Colorectal Congress, Munich, Germany, 3 Dec 2014. Invited Speaker: Initiatives to Enhance Surgical Performance in the Operating Room.

Grantcharov, Teodor: International Society of Wearable Technology in Healthcare, Amsterdam, Netherlands, 28 Apr 2015. Invited Speaker: Use of wearable technology to enhance patient safety.

**Grantcharov**, **Teodor**: Royal College of Physicians and Surgeons of Canada, Toronto, Ontario, Canada, 12 Sep 2014. Keynote Speaker: Simulation Research with Clinical Impact.

Grantcharov, Teodor: Society of the American Gastrointestinal and Endoscopic Surgeons, Nashville, Tennessee, United States, 16 Apr 2015. Invited Speaker: Surgical Black Box.

Grantcharov, Teodor: Surgical Outcomes Club, San Francisco, California, United States, 26 Oct 2014. Invited Speaker: Individualized training interventions to enhance surgical performance.

Grantcharov, Teodor: TEDx, Fort McMurray, Alberta, Canada, 21 Feb 2015. Invited Speaker: Surgical Blackbox Improves Performance and Safety.

Kuebler, Wolfgang: Anatomisches Kolloquium, Medizinische Hochschule Hannover, Hannover, Germany, Jul 2014. Invited Speaker: Regulation of lung endothelial permeability - pathways and therapeutic strategies.

Kuebler, Wolfgang: Comprehensive Pneumology Center Munich, Helmholtz Zentrum Muenchen, Munich, Germany, Jul 2014. Invited Speaker: Acute lung injury and lung edema - new concepts and therapeutic strategies.

Kuebler, Wolfgang: Ludwig Boltzmann Society: Vascular and Cardiac Stiffness, Graz, Austria, Sep 2014. Keynote Speaker: Role of sphingolipids in hypoxic pulmonary vasoconstriction and lung vascular remodelling.

Marshall, John C: 12th Critical Care Symposium, April 23-24, 2015, Manchester, United Kingdom, Apr 2015. Invited Speaker: 1) Sepsis: The bacterium or the host? 2) Is critical illness a disease? 3) Endotoxin as a therapeutic target in critical illness. 4) Priorities in the management of multiple trauma.

Marshall, John C: 13th Simposio Internacional Emergencias Médicas y Paciente Crítico, May 14-16, 2015, Santiago, Chile, May 2015. Invited Speaker: 1) International collaboration in acute care research. 2) Management of severe acute pancreatitis. 3) Age of blood: Does it make a difference? 4) Understanding the host response in sepsis.

Marshall, John C: 14th Acute Dialysis Quality Initiative, Bogota, 13 Oct 2014. Invited Speaker: Immune cells in sepsis.

Marshall, John C: 35th International Symposium on Intensive Care and Emergency Medicine. March 17 – 20, 2015, Brussels, Belgium, Mar 2015. Invited Speaker: 1) Gastrointestinal fistulae: Basic principles for the intensivist. 2) Standardizing outcome measures for acute care research. 3) Damage control resuscitation. 4) Regulation of inflammation by the insulin receptor. 5) D is for deresuscitation.

Marshall, John C: 35th Surgical Infection Society Meeting, April 16-18, 2015, Westlake Village, California, United States, Apr 2015. Invited Speaker: From inflammation to the Multiple Organ Dysfunction Syndrome.

Marshall, John C: 3rd Neurocritical Care Research Conference, Houston, Texas, United States, 15 Aug 2014. Invited Speaker: 1) What is evidence-based medicine? 2) When are randomized clinical trials unnecessary?

Marshall, John C: 5th COMET (Core Outcome Measures in Effectiveness Trials) Meeting, May 20-21, 2015, Calgary, Alberta, Canada, May 2015. Invited Speaker: Outcome measures: A critical care perspective.

Marshall, John C: 7th Baltic Congress of Anesthesia, Intensive Care, and Emergency Medicine. December 4-6, 2014, Riga, Latvia, Dec 2014. Invited Speaker: 1) Fluid and hemodynamic support: Controversies and challenges. 2) Deresuscitation of the critically ill patient.

Marshall, John C: AKI Outcomes: Overcoming barriers in AKI Research, NIH, Bethesda MD, February 11,12, 2015, Bethesda, Maryland, United States, Feb 2015. Invited Lecturer: Lessons from sepsis: Understanding heterogeneity.

Marshall, John C: American Thoracic Society 2015 International Conference. May 18, 2015, Denver, Colorado, United States, May 2015. Invited Speaker: Primum non nocere.

Marshall, John C: Global Research Collaboration for Infectious Disease Preparedness Meeting. May 4-5 2015, Cape Town, South Africa, May 2015. Invited Speaker: Pandemic research collaboration: Priorities and challenges.

Marshall, John C: International Sepsis Forum, Sepsis 2014: International Symposium. December 3-5, 2014, Paris, France, Dec 2014. Invited Speaker: NAD in sepsis: The Nampt connection.

Marshall, John C: National Congress of the Italian Society of Anaesthesiology and Intensive Care Medicine, Venice, Treviso, Italy, 23 Oct 2014. Invited Speaker: Fluid replacement in septic shock.

Marshall, John C: Roundtable Conference on Reducing the Global Burden of Sepsis, Brussels, Belgium. March 14 – 16, 2015, Brussels, Belgium, Mar 2015. Invited Speaker: Are we ready for the next pandemic?

Marshall, John C: SepsEast; 2nd Central and Eastern European Sepsis Forum, Budapest, Hungary, 18 Sep 2014. Invited Speaker: 1) The PIRO concept. 2) Opportunities for global collaboration in sepsis research.

Marshall, John C: State of the Art 2014 Intensive Care Society of the UK. December 8 – 10, 2014, London, United Kingdom, Dec 2014. Invited Speaker: 1) Critical illness is an iatrogenic disorder. 2) Understanding the host response to sepsis.

Marshall, John C: Working Group on Rethinking Endpoints for Trials in the Critically Ill, Paris, France, Jan 2015. Invited Speaker: 1) Mortality as an outcome measure for sepsis trials. 2) Matching the trial to the disease. January 12-13, 2015.

Rezende-Neto, Joao: 35th International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium, 17 Mar 2015. Speaker: Is delaying pharmacological thromboprophylaxis associated with thromboembolic complications?

Rezende-Neto, Joao: American College of Surgeons Trauma Quality Improvement Program Annual Meeting - 2014, Chicago, Illinois, United States, 9 Nov 2014. Speaker: Venous Thromboembolism Prophylaxis in Trauma: How are we doing?

Rezende-Neto, Joao: Canadian General Surgery Review Program, Toronto, Ontario, Canada, 1 Mar 2015. Lecturer: Intra-Abdominal Infections.

Rezende-Neto, Joao: Trauma 2015 - Trauma Association of Canada Annual Meeting., Calgary, Alberta, Canada, Apr 2015. Speaker: Three Indications for the "Open Abdomen" Anatomical, Logistical and Physiological: How are they different.

Rotstein, Ori: R.H. King High School, Toronto, Ontario, Canada, 8 May 2015. Invited Speaker: Life as a surgeon: A gratifying career Careers Class.

Rotstein, Ori: Trauma Association of Canada, Calgary, Alberta, Canada, 10 Apr 2015. Presenter: Three indications for the 'Open Abdomen' anatomical, logistical and physiological: How are they different?

Simpson, Jory S: American Society of Breast Surgeons. 2015. Presenter: Breast Cancer Amongst Filipino Migrant - A Review of the Literature at Ten Year Institutional Analysis.

Simpson, Jory S: CTV, Global TV, City TV, CBC, Toronto, Calgary, Edmonton, Ontario, Canada, 2 Mar 2015. Presenter: Rethink Breast Cancer - New guidelines for young women with breast cancer.

Simpson, Jory S: CTV, Global, City News, Toronto, Ontario, Canada, 2015. Interviewee: New Guidelines on Young Women with Breast Cancer by Rethink Breast Cancer Organization.

#### **Grants, Contracts and Clinical Trials**

A multidisciplinary approach to reducing positive margin rate in breast conserving surgery. St. Michael's Hospital, Quality Improvement in Oncology Care. Simpson JS. (\$5,000.00 CAD, 2014 - 2015).

Accelerated implementation diffusion of quality initiatives for rectal cancer across Canada using a multi-faceted knowledge translation strategy. Canadian Partnership Against Cancer (CPAC). Kennedy E, Baxter NN, Simunovic M, McLeod RS. (\$903,000.00 CAD, Jan 2014 - Mar 2017).

An in-depth assessment of the psychosocial impact of high risk breast cancer screening. CancerCare Ontario. Scheer A, Bombard Y, Grunfeld E, Metcalfe K, Muradali D, Xin Y. (\$5,000.00 CAD, Jun 2015 - Jun 2016).

Assessing personality traits of surgical trainees to predict non-technical and crisis management skills in the operating room. PSI Foundation. Grantcharov T, Dedy N. (\$15,500.00 CAD, Nov 2014 - Nov 2015).

Building Capacity for Population-based Lynch Syndrome Screening in Ontario. OICR-CCO Knowledge Translation Network, Health Services Research. Baxter NN, Rabeneck L, Gagliardi A, Kennedy E, Tinmouth J, Pollett A, Gallinger S, Covelli A, Facey M. (\$148,572.00 CAD, Apr 2014 - Mar 2015).

Cellular and molecular mechanisms of neutrophil survival in sepsis and trauma: the role of PBEF/Nampt/Visfatin. *The Physicians' Services Incorporated Foundation. Marshall J.* (\$169,500.00 CAD, Feb 2015 - Feb 2017).

Cellular mode of action and spectrum of application of angiotensin-(1-7) for the treatment of acute lung injury and systemic inflammatory diseases. German Research Foundation (Deutsche Forschungsgemeinschaft). Kuebler W, Walther T. (\$182,964.00 EUR, Jul 2014 - Jul 2016).

Defining the complex biology of the miR-130/301 family in pulmonary hypertension. *National Institutes of Health (NIH)*. *Kuebler W, Chan S*. (\$135,000.00 USD, Oct 2014 - Sep 2019).

Development and Evaluation of an Objective Assessment of Technical Skill for Graduating General Surgery Residents. Royal College of Physicans and Surgeons of Canada. de Montbrun S. (\$23,009.00 CAD, Jul 2014 - Jun 2015).

Development and Evaluation of an Objective Assessment of Technical Skill for Graduating General Surgery Residents (GOSATS exam). *Covidien. de Montbrun S.* (\$5,000.00 CAD, Nov 2014 - Nov 2015).

Development of a Decision Rule for Discharging Patients following Colorectal Surgery based on Post-operative Serum C Reactive Protein and/or Procalcitonin Levels. Canadian Institutes of Health Research (CIHR). McLeod R, Aarts MA, Marshall J, McCluskey S, Morris A, Okrainec A, Rotstein O, Stiel I. (\$489,000.00, 2014 - 2015).

Effect of Remote Ischemic Conditioning on Neutrophil Function and the Immune-Inflammatory and Coagulation Profiles in Traumatically Injured Patients with Hemorrhagic Shock. *Physicians' Services Incorporated Foundation*. *Rotstein OD, Leung CH, Rizoli SB, Topolovec-Vranic J, Rhind S, Caldarone C.* (\$168,500.00 CAD, Jun 2015 - May 2017).

Improving Implementation: Exploring the uptake of safe surgery checklists. Faculty of Community Service, Ryerson University. Espin S, Safir O, Grant R. (\$9,125.00 CAD, May 2014 - Dec 2014).

Improving the quality of oncofertility decision making among young women at risk of infertility during cancer survivorship. Canadian Cancer Society Research Institute (CCSRI), Quality of Life. Baxter NN, Kennedy E, Simmons C, Brezden-Masley C, Hicks L, Gupta A, Nathan P, Greenblatt E, Yee S, Covelli A, Srikanthan A, Facey M. (\$299,936.00 CAD, Feb 2014 - Mar 2017).

Initiative to Maximize Progress in Adolescent and Young Adult (AYA) Cancer Therapy (IMPACT). Canadian Institutes of Health Research (CIHR). Baxter NN, Nathan P, Alexander S, Barr R, Greenberg M, Gupta S, Gupta A, Hicks L, Johnston D, Pole J, Sussman J, Sutradhar R, Paszat L. (\$913,870.00 CAD, Apr 2014 - Mar 2019).

International Forum for Acute Care Trialists. Canadian Institutes of Health Research (CIHR), Institute of Circulatory and Respiratory Health. Marshall JC. (\$40,000.00 CAD, Apr 2015 - Mar 2016).

Knowledge to Action: Improving local therapy for young women with breast cancer across Canada. Canadian Breast Cancer Foundation (CBCF) - Canadian Institutes of Health Research (CIHR), Breast Cancer in Young Women Research Program. Baxter NN, Simonovic M, Quan ML, Tyldesley S, Cao J, Hebbard P, Latosinksy S, Olivotto I, Winget M, Provencher L, Wright F, Lemieux J, Kennedy E, Sutradhar R. (\$497,549.00 CAD, Jun 2014 - May 2019).

Long-term live fluorescent imaging system for monitoring site-specific functions in epithelia. *NSERC. Kapus A.* (\$900,000 2014-2020)

Mechanisms of antibody-independent transfusion-related acute lung injury (TRALI). Canadian Institutes of Health Research (CIHR), Canadian Blood Services (CBS), Priority Announcement TRALI. Kuebler W, Semple J. (\$328,713.00 CAD, Jan 2015 - Dec 2017).

Microparticles as biomarkers, pathogenic mediators and novel therapeutics in acute and chronic lung disease. Canada Foundation for Innovation (CFI). Kuebler W, Ni H, Batt J. (\$625,018.00 CAD, Jul 2014 - Jul 2019).

Patterns of invasive palliative procedures performed in patients with metastatic colorectal cancer. *Physicians' Services Incorporated. Scheer AS, Easson A, Hallet J, Liang V, Ramkumar S.* (\$17,500.00 CAD, Jan 2015 - Jun 2016).

Pre-consultation educational group intervention to improve shared decision making for postmastectomy breast reconstruction. Canadian Breast Cancer Foundation. Zhong T, Baxter NN, Metcalfe K, Hofer S, O'Neill A, Jones J, Panzarella T, Cheng T, Beber B, Hoch J, Isaranuwatchai W, Platt J. (\$352,285.00 CAD, Jun 2015 - May 2018).

Remodelling of the tubular tight junctions in diabetic nephropathy: underlying cellular mechanisms and functional consequences. *Kidney Foundation of Canada (KFC)*. *Szaszi K*. (CAD, Jul 2014 - Jun 2016).

Screening for non-melanoma skin cancer after solid organ transplantation. Canadian Institutes of Health Research (CIHR), Health Services and Policy Research. Chan AW, Austin PC, Baxter NN, Kim SJ, Rochon PA, Singer LG. (\$161,486.00 CAD, Jul 2014 - Jul 2016).

Surgical coaching - using tele-mentoring to provide error debriefing, behavioral modeling and error recognition to enhance surgical skills. *Association for Surgical Education (ASE). Grantcharov TP*. (\$15,000.00 USD, Apr 2015 - Apr 2015).

Temperature, Heart and Respiratory Rate Investigation with Variability Evaluation and Serum Biomarkers THR-RIVES) to provide early and specific warning of infection. *The Ottawa Hospital Academic Medical Organization*. *Marshall JC, Seely AJE*. (CAD, Oct 2014 - Sep 2017).

The Canadian Critical Care Trials Group. Canadian Institutes of Health Research (CIHR), Circulatory and Respiratory Health Community Development. Hebert P, Marshall J, Cook D, Burns K, et al. (\$1,500,000.00 CAD, Sep 2014 - Aug 2019).

The development of feasible, reliable and valid in-training milestones as a means to assess technical and non-technical competence in General Surgery trainees. *PSI Foundation. Szasz P, Grantcharov TP.* (\$19,000.00 CAD, Feb 2015 - Feb 2016).

The evaluation of a rectal cancer decision aid and the factors influencing its implementation in clinical practice. *Physicians Services Incorporated Foundation (The) (PSI)*. Wu R, Scheer AS, Boushey RP, Stacey D. (\$20,000.00 CAD, 2014 - 2015).

The Inference From Observational Research Methods (INFORM) Project. Canadian Institutes of Health Research (CIHR). Urbach D, Baxter NN, Bell CM, Gagliardi AR, Tomlinson GA. (\$501,724.00 CAD, Oct 2014 - Sep 2018).

The role of remote ischemic preconditioning (RIPC) in preventing organ dysfunction following hemorrhagic shock. MITACs Accelerate PhD Fellowship. Rotstein OD, Caldarone C, Leung CH. (\$96,000.00 CAD, Jan 2014 - Dec 2016).

Using a novel quality metric approach to examine the healthcare utilization of post-masectomy breast reconstruction: a population-based study. *Physicians' Services Incorporated Foundation. Zhong T, Roberts A, Baxter NN.* (\$74,000.00 CAD, Jul 2014 - Jul 2015).

What comes next: Real world health services utilization, outcomes and cost-effectiveness after BRCA1 and BRCA2 testing in Canada. Canadian Breast Cancer Foundation. Baxter NN, Lerner-Ellis J, Metcalfe K, Sutradhar R, Eisen A, Meschino W, Hoch J, Chun K, Finch A, Isaranuwatchai W. (\$449,942.00 CAD, Jun 2015 - May 2019).

#### **Honours and Awards**

Baxter, Nancy: Institute of Health Services and Policy Research Article of the Year, Canadian Institute of Health Research (CIHR), Ottawa, Ontario, Canada. 2015.

George, Ralph: Cause Leadership Award, Canadian Breast Cancer Foundation, Canada. Jul 2014 - Jun 2015.

Grantcharov, Teodor: Honorary Member of the Danish Surgical Society, Danish Surgical Society, Copenhagen, København City, Denmark. Nov 2014.

Grantcharov, Teodor: Jameel Ali Continuing Education Award, St. Michael's Hospital, General Surgery, Dept of Surgery, Faculty of Medicine, Toronto, Ontario, Canada. Jul 2014.

Marshall, John C: Academia Colombiana de Medicine Crítica. 2014.

Marshall, John C: Squires-Hyland Trust Teaching Award, St. Michael's Hospital. Dept of Surgery, Faculty of Medicine. 2015.

Rotstein, Ori: 2014 CPSO Council Award, The College of Physicians and Surgeons of Ontario, Ontario, Canada. Oct 2014.

Rotstein, Ori: Jeffrey C. Lozon Physician Leadership Award, St. Michael's Hospital, Ontario, Canada. Dec 2014.

Simpson, Jory S: Certificate of Recognition to Speciality Clinic, St. Michael's Hospital. Dedication to providing care to women with breast cancer. Apr 2015.

# 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**

Asbridge M, Mann R, Cusimano MD, Tallon JM, Pauley C, Rehm J. Cycling-related crash risk and the role of cannabis and alcohol: a case-crossover study. Prev med. 2014 Sep; 66: 80-6.

Awan M, Liu S, Sahgal A, Das S, Chao ST, Chang EL, Knisely J, Redmon K, Sohn JW, Machtay M, Sloan AE, Mansur DB, Rogers LR, Lo SS. Extra-CNS Metastasis From Glioblastoma (ECMGBM): A Rare Clinical Entity. Exp Rev Anticanc Ther. 2015 Feb.

Bahrami P, Graham SJ, Grantcharov TP, Cusimano MD, Rotstein OD, Mansur A, Schweizer TA. Neuroanatomical correlates of laparoscopic surgery training. Surg Endosc. 2014 Jul; 28(7): 2189-98.

Cripton PA, Shen H, Brubacher JR, Chipman M, Friedman SM, Harris MA, Winters M, Reynolds CCO, Cusimano MD, Babul S, Teschke K. Severity of urban cycling injuries and the relationship with personal, trip, route and crash characteristics: analyses using four severity metrics. BMJ Open. 2015 Jan 5; 5(1): e006654.

Davidson J, Cusimano MD, Bendena WG. Post-Traumatic Brain Injury: Genetic Susceptibility to Outcome. Neuroscientist. 2014 Jul 24.

de Oliveira MAL, Mansur A, Murphy A, Turkel-Parrella D, Macdonald M, Macdonald RL, Montanera W, Marotta TR, Bharaha A, Effendi K, Schweizer TA. Aneurysmal subarachnoid haemorrhage from a neuroimaging perspective. Critical Care. 2014 Nov; 18(6): 557.

DI Ieva A, Boukadoum M, Lahmiri S, Cusimano MD. Computational Analyses of Arteriovenous Malformations in Neuroimaging. J Neuroimaging. 2014 Dec 17.

Di Ieva A, Butz H, Niamah M, Rotondo F, De Rosa S, Sav A, Yousef GM, Kovacs K, Cusimano MD. MicroRNAs as biomarkers in pituitary tumors. Neurosurgery. 2014 Aug; 75(2): 181-9.

Di Ieva A, Davidson JM, Syro LV, Rotondo F, Montoya JF, Horvath E, Cusimano MD, Kovacs K. Crooke's Cell Tumors of the Pituitary. Neurosurgery. 2015 May 1; 76(5): 616-22.

Di Ieva A, Fathalla H, Cusimano MD, Tschabitscher M. The indusium griseum and the longitudinal striae of the corpus callosum. Cortex. 2015 Jan 8; 62: 34-40.

Di Ieva A, Laiq S, Nejad R, Schmitz EM, Fathalla H, Karamchandani J, Munoz DG, Cusimano MD. Chordoid meningiomas: Incidence and clinicopathological features of a case series over 18 years. Neuropathology. 2014 Nov 6.

Di Ieva A, Niamah M, Menezes RJ, Tsao M, Krings T, Cho YB, Schwartz ML, Cusimano MD. Computational fractal-based analysis of brain arteriovenous malformation angioarchitecture. Neurosurgery. 2014 Jul; 75(1): 72-9.

Di Ieva A, Rotondo F, Syro LV, Cusimano MD, Kovacs K. Aggressive pituitary adenomas-diagnosis and emerging treatments. Nat Rev Endocrinol. 2014 Jul; 10(7): 423-35.

Di Ieva A, Tam M, Tschabitscher M, Cusimano MD. A Journey into the Technical Evolution of Neuroendoscopy. World Neurosurg. 2014 Dec; 82(6): e777-e789.

Di Ieva A, Valli M, Cusimano MD. Distinguishing Alzheimer's disease from normal pressure hydrocephalus: a search for MRI biomarkers. J Alzheimers Dis. 2014; 38(2): 331-50.

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#### **Invited Visits**

Cusimano, Michael David: 680 News, Ontario, Canada, 29 Sep 2014. 1 in 5 Ontario teens suffer concussion or brain injury that could lead to chronic issues.

Cusimano, Michael David: Counsel and Heal, Ontario, Canada, 26 Nov 2014. Teens with Traumatic Brain Injury are more likely to Abuse Drugs.

Cusimano, Michael David: Digital Journal, Toronto, Ontario, Canada, 26 Nov 2014. Teens who suffer concussions more likely to use alcohol, drugs.

Cusimano, Michael David: Medical Daily, Toronto, Ontario, Canada, 26 Nov 2014. Crystal Meth Use Highest Among Teens Who Have History Of Concussions And Traumatic Brain Injury.

Cusimano, Michael David: Medical Xpress, Ontario, Canada, 11 Dec 2014. One in six Ontario adults say they have had a traumatic brain injury in their lifetime Media Article in response to Associations between a history of traumatic brain injuries and current cigarette smoking, cannabis use, nonmedical opioid use, and elevated psychological distress in a population sample of Canadian adults.

Cusimano, Michael David: Medical Xpress, Toronto, Ontario, Canada, 26 Nov 2014. Teens with a history of TBI are nearly 4 times more likely to have used crystal meth.

Cusimano, Michael David: NHL, United States, 29 Apr 2015. Lawyers seek all NHLers' records since 1967 "One study published by Michael Cusimano, a neurosurgeon at St. Michael's Hospital in Toronto, found that the number of concussions and suspected concussions rose to 84 during the 2011-12 season, up from 44 two years earlier in 2000-10".

Cusimano, Michael David: NOW, Toronto, Ontario, Canada, 15 Jan 2015. 740 homeless people have died on Toronto streets since 1985. We think.

Cusimano, Michael David: Ottawa Citizen, Ottawa, Ontario, Canada, 20 Dec 2014. 'It's tragic': Smiths Falls' Neil Doef latest potential case of hockey spinal trauma.

Cusimano, Michael David: Science Codex, Toronto, Ontario, Canada, 26 Nov 2014. Teens with a history of TBI are nearly 4 times more likely to have used crystal meth.

Cusimano, Michael David: Science World Report, Toronto, Ontario, Canada, 26 Nov 2014. TBI Injuries Increase The Risk Of Drug Abuse.

Cusimano, Michael David: The Globe and Mail, Canada, 14 Jan 2015. Risk reduction, not outright bans, key to safe sledding: experts Media Article in response to Catastrophic Injuries in Sports and Recreation: Causes and Prevention.

Cusimano, Michael David: The Globe and Mail, Toronto, Ontario, Canada, 16 Jan 2015. Researchers use dollar signs to show NHL the cost of brain injuries.

Cusimano, Michael David: The Toronto Star, Toronto, Ontario, Canada, 29 Dec 2014. Concussion protocol determines how soon athletes can play.

Cusimano, Michael David: The Toronto Star, Toronto, Ontario, Canada, 26 Nov 2014. Teens with brain injury are more likely to abuse drugs.

Das, Sunit: American Surgical Congress Annual Meeting, Las Vegas, Nevada, United States, 3 Feb 2015. Invited Speaker: BMP signaling within glioblastoma mediates GSC quiescence and treatment resistance.

Ginsberg, Howard: Jikei University Hospital, Tokyo, Tôkyô [Tokyo], Japan, 22 Sep 2014. Visiting Professor: Navigation and Ultrasound Improve Quality and Outcomes in Spinal Surgery.

Ginsberg, Howard: Nagoya University, Nagoya, Aiti [Aichi], Japan, 24 Sep 2014. Invited Speaker: Image Guidance in Spinal Surgery Invited Speaker at national meeting of Japanese spinal surgeons.

Ginsberg, Howard: Stryker Spine Educational Lecture and Cadaver Course, Ottawa, Ontario, Canada, 3 Oct 2014. Invited Speaker: 1) 3D Spinal Navigation with Intraoperative CT. 2) Ultrasound Guided Spinal Decompression.

#### **Research and Investigations**

Driving and the aging brain: an fMRI study. Canadian Institutes of Health Research (CIHR). Schweizer T, Graham S, Naglie G, Fischer C, Bedard M. (\$144,553.00 CAD, Apr 2014 - Mar 2015).

Driving in AD and MCI: An immersive fMRI study. Alzheimer Society. Schweizer T, Fischer C, Graham S. (\$149,926.00 CAD, Jul 2014 - Jun 2016).

Innovation Funds Provincial Oversight Committee (IFPOC), MOHLTC: Acute Carotid Care in the Prevention of Stroke. MOHLTC, Innovation Funds Provincial Oversight Committee (IFPOC). Spears J, Turkell-Parrella D. (\$130,000.00 CAD, Apr 2014 - Mar 2016).

Mass Spectroscopy Guided Laser Ablation. St. Michael's Hospital Foundation. Prof Zarrine-Asfar A, Cusimano M, Miller RJD. (\$200,000.00 CAD, Jan 2014 - Jan 2016).

Neuroimaging Correlates of Delusions in Alzheimer's Disease and Related Dementias. Canadian Institutes of Health Research (CIHR). Fischer C, Schweizer TA, Millikin C, Ismail Z, Lix L, Munoz D, Shelton P. (\$98,390.00 CAD, Apr 2014 - Mar 2016).

Neuropsychological profiles and neuroanatomic correlates of limb apraxia. Heart and Stroke Foundation. Roy E, Black S, Staines R, Park N, Hebert D, Schweizer T, Graham S. (\$235,500.00 CAD, Jul 2014 - Jul 2017).

Resting state functional MRI as a predictor of cognitive outcome after brain tumour resection. St. Michael's Hospital, MR Steering Committee. Das S, Graham A, Schweizer T. (\$10,000.00 CAD, Feb 2015 - Feb 2016).

The neural correlates of delusions in patients with Alzheimer's disease. (Co-Principal Investigator). St. Michael's Hospital. Fischer C, Schweizer T, Leung G. (\$10,000.00 CAD, Mar 2015 - Mar 2016).

Ultrasound Navigated Spinal Fusion Surgery". NSERC. Ginsberg H. (\$120,000.00 CAD, Apr 2014 - Apr 2015).

Using MRI compatible driving and tablet technology to predict driving ability in healthy older adults. *Ministry of Transportation. Schweizer T.* (\$67,400.00 CAD, Jan 2015 - Jan 2017).

Z-BRAIN: A Zebrafish Drug Screening Platform Targeting Brain Disorders. Brain Canada. Wen X-Y, Drapeau P, Andersen R, Gerlai R, Brotchie J, Zoidl G, Macdonald L, Baker A, Wang A, Ekker M, Kennedy S, Fin A, Robertson J, Tropepe V, Klause H, Van Raay T, Schweizer T, Munoz D, Fischer C, Steeve T, Allison T, Gregory-Evans C, dos Santos C. (\$2,620,000.00 CAD, Jul 2014 - Jun 2017).

#### **Honours and Awards**

Das, Sunit: Franklin H. Martin Research Fellowship, American College of Surgeons, United States. Apr 2014 - Mar 2016.

# Division of Orthopaedics

Dr. H. Ahn Assistant Professor

Dr. E.R. Bogoch Professor

Dr. T. Daniels Associate Professor (Division Head)

Dr. J. Hall Assistant Professor

Dr. M. McKee Professor

Dr. A. Nauth Assistant Professor

Dr. E. Schemitsch Professor Dr. J.P. Waddell Professor

Dr. D. Whelan Assistant Professor

#### **Publications**

Aziz MS, Tsuji MR, Nicayenzi B, Crookshank MC, Bougherara H, Schemitsch EH, Zdero R. Biomechanical measurements of stopping and stripping torques during screw insertion in five types of human and artificial humeri. Proc Inst Mech Eng H. 2014. 228(5): 446-455.

Bagheri ZS, Tavakkoli Avval P, Bougherara H, Aziz MS, Schemitsch EH, Zdero R. Biomechanics of a new CF/Flax/Epoxy Plate versus a traditional metal plate for Vancouver B1 femur fractures: An experimental and computational study. J Biomech Eng. 2014.

Bayley N, Khan H, Grosso P, Hupel T, Stevens D, Snider M, Schemitsch EH, Kuzyk P. What are the predictors and prevalence of pseudotumor and elevated metal ions after large-diameter metal-on-metal THA? Clin Orthop Relat Res. 2014

Busse JW, Bhandari M, Einhorn TA, Heckman JD, Leung KS, Schemitsch EH, Tornetta P 3rd, Walter SD, Guyatt GH. Trial to re-evaluate ultrasound in the treatment of tibial fractures (TRUST): a multicenter randomized pilot study. Trials. 2014. 4:15(1): 206.

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Daniels TR, Bouchard M, Khoshbin A, Kreder H, Law PW, Leroux T, Wasserstein D, Wright JG. Re-operations following tarsal coalition resections: A population based study. Journal of Foot and Ankle Surgery. 2014 Jul 5.

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Daniels TR, Mayich DJ. Foot and Ankle 2: "Non-neuromuscular flexible pes cavus" (Sports-Related conditions section). In: 2014 Jul. Edited by Ian Alexander, Eric Bluman, Justin Greisberg (for AAOS + AOFAS): Advanced Reconstruction Series - AAOS.

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Nauth A, Stevenson I, Smith M, Schemitsch EH. Fixation of Periprosthetic Fractures About/Below Total Hip Arthroplasty. In: Wiesel SW (eds), Operative Techniques in Orthopaedic Surgery. 2nd ed. 2014.

Olsen M, Al Saied M, Morison Z, Sellan M, Waddell JP, Schemitsch EH. The Impact of Proximal Femoral Morphology on Failure Strength with a Mid-Head Resection Short Stem Hip Arthroplasty. Journal of Engineering in Medicine. 2014 Dec; 12(228): 1275-80.

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Sale JEM, Hawker G, Cameron C, Bogoch E, Jain R, Beaton D, Jaglal S, Funnell L. Perceived messages about bone health after a fracture are not consistent across health care providers. Rheumatology International. 2015 Jan; 35(1): 97-103.

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Schemitsch EH. Introduction: Orthopaedic trauma association basic science focus forum 2012. J Orthop Trauma. 2014: 28 (S1).

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Siddiqui FS, Shah S, Nicayenzi B, Schemitsch EH, Zdero R, Bougherara H. Biomechanical analysis using infrared thermography of a traditional metal plate versus a carbon/epoxy plate for Vancouver B1 femur fractures. Proc Inst Mech Eng H. 2014. 228(1): 107-13.

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Whelan DB, Litchfield R, Wambolt E and Dainty KN. External rotation immobilization for primary shoulder dislocation: a randomized controlled trial. Clin Orthop Relat Res. 2014 Aug; 472(8): 2380-6.

Zdero R, Bagheri ZS, Rezaey M, Schemitsch EH, Bougherara H. The biomechanical effect of loading speed on metal-on-UHMWPE contact mechanics. Open Biomed Eng. 2014; 16(8): 28-34.

Zielinski SM, Bouwmans CA, Heetveld MJ, Bhandari M, Patka P, Van Lieshout EM: FAITH Trial Investigators. The societal costs of femoral neck fracture patients treated with internal fixation. Osteoporos Int. 2014. 25(3): 590-5.

#### **Invited Visits**

Ahn, Henry: National Spinal Cord Injury Meeting, Toronto, Ontario, Canada, 3 Oct 2014. 1) Presenter: The importance of "time to surgery" for traumatic spinal cord in plex Knee Conference.

#### **Research and Investigations**

A randomized trial of retrograde nailing versus locked plated for periprosthetic fractures of the distal femur. Orthopaedic Trauma Association (The) (OTA). Nauth A, Schemitsch EH. (\$80,000.00 CAD, Jan 2015 - Dec 2017).

A retrospective cohort study of short and long-term reoperation rates after proximal humerus fracture management in the elderly. Orthopaedic Trauma Association (The) (OTA). Mckee M, Bonyun ME. (\$19,600.00 CAD, Jan 2015 - Dec 2015).

Biomechanical determination of the optimal overlap between a sliding hip screw plate and retrograde intramedullary nail for repairing an ipsilateral intertrochanteric and femur shaft fracture. Orthopaedic Trauma Association (The) (OTA). Schemitsch EH, Olsen M, Zdero R. (\$19,980.00 CAD, Jan 2015 - Dec 2015).

Endothelial progenitor cells for the biological augmentation of rotator cuff repair. *PSI Foundation. Schemitsch E.* (\$20,000.00 2014-2015).

How do fracture patients with comorbidities manage bone health treatment? *Canadian Institutes of Health Research (CIHR)*. Sale J, Beaton D, Bogoch E, Gignac M, Hawker G, Ho J, Elliot-Gibson V, Funnell L. (\$153,852.00 CAD, Apr 2014 - Mar 2016).

International orthopaedic multicenter study in fracture care (INORMUS). Canadian Institutes of Health Research (CIHR). INORMUS Investigators. Schemitsch, E. (\$500,000.00 CAD, Jan 2014 - Dec 2016).

Midterm outcomes of Hintegra total ankle replacement. *Integra Life Sciences*. *Daniels*, T. (\$60,000.00 CAD, Jul 2014 - Jun 2015).

MOHLTC Evaluation of an Osteoporosis Screening Program for Fragility Fracture Patients - Year 8. Ontario Ministry of Health and Long-Term Care. Bogoch E. (\$350,000.00 CAD, Apr 2014 - Mar 2015).

MOHLTC Evaluation of an Osteoporosis Screening Program for Fragility Fracture Patients - Year 9. Ontario Ministry of Health and Long-Term Care. Bogoch E. (\$350,000.00 CAD, Apr 2015 - Mar 2016).

Omega Fellowship Grant in Adult Reconstruction. Omega Foundation. Schemitsch EH. (\$48,000.00 CAD, Jan 2014 - Dec 2016).

Omega Fellowship Grant in Trauma. Omega Foundation. Schemitsch EH. (\$10,000.00 CAD, Jan 2014 - Dec 2015).

Omega Residency/General Education Grant. Omega Foundation. Schemitsch EH. (\$3,045.00 CAD, Jan 2014 - Dec 2015).

Rick Hansen Spinal Cord Injury Registry Grant. Rick Hansen Institute. Ahn H, Ginsberg H. (\$60,000.00 CAD, Jul 2014 - Jul 2015).

The use of antibiotics combined with an induced membrane technique for bone defect healing. *Orthopaedic Trauma Association (The) (OTA). Schemitsch EH, Watt E.* (\$20,000.00 CAD, Jan 2014 - Dec 2015).

The use of autologous endothelial progenitor cells for the healing of a bone defect in a large animal model. Orthopaedic Trauma Association (The) (OTA). Nauth A, Schemitsch EH. (\$50,000.00 CAD, Jan 2014 - Dec 2016).

Transformative bioglass coatings for surgical applications. Canadian Institutes of Health Research (CIHR). Towler MR, Schemitsch EH, Peel S, Zalzal P. (\$485,934.00 CAD, Jan 2014 - Dec 2017).

#### **Honours and Awards**

Ahn, Henry: Best Research Presentation, 6th National Spinal Cord Injury Conference-Bioinformatics Inform SCI Rehabilitation. Oct 2014

Bogoch, Earl R: IOF Capture the Fracture Gold Award, International Osteoporosis Federation, Switzerland. For the Osteoporosis Exemplary Care Program, St. Michael's Hospital, Toronto, Canada, for meeting the Gold Level criteria of the Capture the Fracture programme. 2014

Bogoch, Earl R: Squires-Hyland Trust Teaching Award (Orthopaedics), Squires-Hyland Trust. 2015

Daniels, Timothy: 2014 Roger A. Mann Award (Best Clinical Paper), AOFAS (American Orthopaedic Foot & Ankle Society), Chicago, Illinois, United States. "Multi-Center prospective comparison of PROMIS physical function CAT to traditional instruments for foot and ankle disorders". Sep 2014

Schemitsch, Emil: William Horsey Post Graduate Teaching Award, St. Michael's Hospital. Jul 2014 - Jun 2015.

## Division of Plastic and Reconstructive Surgery

Dr. J.L. Mahoney Professor (Division Head)
Dr. M.A. Musgrave Assistant Professor

#### **Grants, Contracts and Clinical Trials**

Wounds and Surgical Sites Infections III: Development and Evaluation of Mobile Application for patient Detection of Surgical Site Infections. Innovation Funds. Mahoney JL. (\$4,479.34 CAD, Mar 2014 - present).

# Division of Urology

Dr. R.J.D. Honey Professor

Dr. J. Lee Assistant Professor Dr. M. Ordon Assistant Professor

Dr. K. Pace Associate Professor (Division Head)

Dr. R. Stewart Assistant Professor

#### **Publications**

Alzahrani T, Kashani M, Ghiculete D, Shiff B, McFarlane P, Perl J, Lee JY. Impact of a Dedicated Laparoscopic Peritoneal Dialysis Access Program on Clinical Outcomes. 2014.

Gupta V, Lantz AG, Alzharani T, Foell K, Lee JY. Baseline Urologic Surgical Skills among Medical Students: Differentiating Trainees. Canadian Urological Association Journal. 2014 Aug; 8(7-8): 242-246.

Honey RJD. Percutaneous Nephrolithotomy in the Prone-Flexed and Lateral-Flexed Positions. BJUI Knowledge. 2015 Jan 19.

Iakovleva G, Iakovlev V, Ordon M, Srigley J and Yousef GM. Tubulocystic Carcinoma of Kidney: a Challenging Diagnostic Entity Mimicking Multicystic Kidney and Presenting with Bone Metastasis. Histopathology. 2014 Aug 11. PMID: 25109328. AID: 10.1111/his.12502 [doi].

Juncal S, Babaian KN, Okhunov Z, Ordon M, Lusch A, Andreoni C and Landman J. Clinical Outcomes of Patients with Nondiagnostic Biopsy during Cryoablation of Small Renal Masses. Urology. 2014 Nov.

Karamchandani JR, Gabril MY, Ibrahim R, Scorilas A, Filter E, Finelli A, Lee JY, Ordon M, Pasic M, Romaschin AD and Yousef GM. Profilin-1 expression is associated with high grade and stage and decreased disease-free survival in renal cell carcinoma. Hum Pathol. 2014 Nov 26. PMID: 25704627. AID: 10.1016/j.humpath.2014.11.007 [doi].

Khella HW, Scorilas A, Mozes R, Mirham L, Lianidou E, Krylov SN, Lee JY, Ordon M, Stewart R, Jewett MA and Yousef GM. Low Expression of miR-126 Is a Prognostic Marker for Metastatic Clear Cell Renal Cell Carcinoma. Am J Pathol. 2015 Mar; 185(3): 693-703.

Kim M, Boyle SL, Fernandez A, Matsumoto ED, Pace KT, Anidjar M, Kozak GN, Dave S, Welk BK, Johnson MI and Pautler SE. Development of a novel classification system for anatomical variants of the puboprostatic ligaments with expert validation. Can Urol Assoc J. 2014 Nov;8(11-12):432-6.

Lantz AG, O'Malley P, Ordon M and Lee JY. Assessing radiation exposure during endoscopic-guided percutaneous nephrolithotomy. Can Urol Assoc J. 2014 Sep; 8(9-10): 347-51.

Lee JY, Yousef GM. Profilin-1 Expression is Associated with High Grade and Stage and Decreased Disease-Free Survival in Cell Renal Cell Carcinoma. Human Pathology. 2014.

Okhunov Z, del Junco M, Yoon R, Labadie K, Ordon M. In-Vitro Evaluation of LithAssist: A Novel Combined Holmium Laser and Suction Device. Journal of Endourology. 2014 Aug; 28(8): 980-4.

Okhunov Z, Juncal S, Ordon M, George AK, del Junco M, Nguyentat M, Lobko II, Kavoussi L, Landman J. Comparison of Outcomes in Patients Undergoing Percutaneous Renal Cryoablation with Sedation versus General Anesthesia. Urology. 2015 Jan; 85(1): 130-4.

Ordon M, Ghiculete D, Stewart R, Pace KT, Honey RJ. The role of prophylactic versus selective ureteric stenting in kidney transplant patients: a retrospective review. Prog Transplant. 2014 Dec;24(4):322-7.

Ordon M, Urbach D, Mamdani M, Saskin R, D'A Honey RJ, Pace KT. The surgical management of kidney stone disease: a population based time series analysis. J Urol. 2014 Nov;192(5):1450-6.

Ordon M, Urbach D, Mamdani M, Saskin R, Honey RJ, Pace KT. A population based study of the changing demographics of patients undergoing definitive treatment for kidney stone disease. J Urol. 2015 Mar;193(3):869-74.

#### **Invited Visits**

Lee, Jason: World Congress of Endourology 2014 - Education Course, Taipei, Taiwan, Province Of China, Sep 2014. Invited Speaker: Robotic Pyeloplasty - Key Steps.

Lee, Jason: 2014 Department of Medical Education Annual MHPE Conference, Chicago, Illinois, United States, Jul 2014. Presenter: Simulation-based Endourological Skills Training: Does Timing of Expert Feedback Matter?

Lee, Jason: Canadian Urological Association Annual Meeting, Canada, Jun 2015. Presenter: Laparoscopic IVC injury management training: Predicting technical & non-technical skills.

#### **Research and Investigations**

Impact of point-of-care focused GU ultrasonography on ambulatory kidney stone patient care. *Academic Health Science Centre. Lee J, Ordon M, Pace KT, Honey RJDA, Stewart R.* (\$8,092.00 CAD, Apr 2015 - Apr 2016).

Is Extracorporeal Shockwave Lithotripsy a Risk Factor for the Development of Diabetes Mellitus? Canadian Urological Association. Ordon M. (\$40,000.00 CAD, Jul 2014).

Is Extracorporeal Shockwave Lithotripsy for the Treatment of Kidney Stones a Risk Factor for Developing Diabetes Mellitus? *Department of Surgery, University of Toronto, Roscoe Reid Graham Scholarship In Surgical Science. Ordon M.* (\$25,000.00 CAD, Jul 2014).

Kidney Information Database Network Evaluation System. Academic Health Science Centre. Ordon M, Lee J, Pace KT, Honey RJDA, Stewart R. (\$9,840.00 CAD, Mar 2014 - Mar 2015).

The Kidney Information Database Network Evaluation (KIDNE) System - Improving Patient Care. 2014 Ontario Innovation Funds Provincial Oversight Committee. Lee J. (\$9,840.00 CAD, Jul 2014).

#### **Honours and Awards**

Lee, Jason: CUA Best Poster Award - Education, Technology, Basic Science, Canadian Urological Association. Jun 2015.

Lee, Jason: Peritoneal Dialysis Centre of Excellence, Ontario Renal Network. St Michael's Hospital Peritoneal Dialysis Program has been awarded the Distinction of Peritoneal Dialysis Centre of Excellence. Jan 2015.

Ordon, Michael: Best of the NS-AUA Poster Presentation, Northeastern Section of the American Urologic Association Meeting 2014, American Urologic Association, Amelia Island, Florida, United States. Nov 2014

## Division of Vascular Surgery

Dr. M. Al-Omran	Professor (Division Head)
Dr. V. Campbell	Assistant Professor
Dr. E. Greco	Assistant Professor
Dr. A. Moloney	Assistant Professor
Dr. W. Tanner	Assistant Professor
Dr. M.D. Wheatcroft	Assistant Professor

#### **Publications**

Ali A,O'Callaghan A, Moloney MA, Kelly C, Moneley D, Leahy AL. The effect of carotid stenting on endarterectomy practice – A single institution experience. Surgeon. 2014. Epub May 2014.

Cape HR, Balaban DY, Moloney MA. Endovascular repair of arteriovenouw fistula after microendoscopic discectomy and lamino-foraminotomy. Vascular. 2014. Epub 2014 Apr 9.

Hussain MA, Verma S, Gupta N, Al-Omran M. Carotid artery revascularization: what's the best strategy? Circulation. 2015.

Musselman RP, Gomes T, Chan BP, Auer RC, Moloo H, Mamdani M, Al-Omran M, Al-Obeed O, Boushey RP. Laparoscopic Colorectal Surgery in the Emergency Setting: Trends in the Province of Ontario from 2002-2009. Surgical Laparascopy, endoscopy & Percutanneous Technology. 2015 Mar 19.

Pedlow H, Cormier A, Provost M, Bailey S, Balboul G, Agnello A, Coleman J, Fox P, Moloney MA, Nixon S. Patient perspective on information needs for amputation secondary to vascular surgery: What, when, why, and how much? Journal of Vascular Nursing. 2014.

Singh KK, Lovren F, Pan Y, Quan A, Ramadan A, Matkar PN, Ehsan M, Sandhu P, Mantella LE, Gupta N, Teoh H, Parotto M, Tabuchi A, Kuebler WM, Al-Omran M, Finkel T, Verma S. The essential autophagy gene ATG7 modulates organ fibrosis via regulation of endothelial-to-mesenchymal transition. Journal of Biology and Chemistry. 2015 Jan 30.

Singh KK, Shukla PC, Quan A, Al-Omran M, Jurasz P, Lovren F, Pan Y, Brezden-Masley C, Ingram AJ, Teoh H, Verma S. BRCA1 is a Novel Target to Improves Endothelial Dysfunction and Retard Atherosclerosis. Journal of Thoracic and Cardiovascular Surgery. 2014 Oct; 146(4): 949-60.



Sunnybrook Health Sciences Centre Avery Nathens, Surgeon-in-Chief

#### **Division Heads:**

Dr. G. Cohen Cardiac Surgery
Dr. A. Dueck Vascular Surgery
Dr. T. Mainprize Neurosurgery
Dr. H. Kreder Orthopaedic Surgery
Dr. P. Binhammer Plastic and Reconstructive Surgery

Dr. R. Kodama Urology

Dr. S. Ashamalla General Surgery

The 2014-15 academic year within the Department of Surgery at Sunnybrook provided an opportunity to achieve greater focus with our new strategic plan for the Trauma Program, involving heavily the Divisions of General, Orthopaedic, and Neurosurgery. In addition, we expanded our quality improvement activities within the American College of Surgeons (ACS) National Surgical Quality Improvement Program and began participation in the Trauma Quality Improvement Program. We have advanced our academic mission through the recruitment of three surgeon-investigators and a scientist, achieving greater alignment with the research activities within Sunnybrook Research Institute. We have bolstered our undergraduate surgical education activities with a new Lunch with the Professor series and brought the TEAM (Trauma Evaluation and Management® (TEAM®) course to the Sunnybrook campus. Lastly, we were fortunate to host the Tile Lecture in Trauma with Dr. James Kellam (University of Texas, Houston), speaking on Orthopedic Trauma: An Evolution of Care.

#### Recruitment

**Dr. Julie Hallet** was recruited to the Division of General Surgery as a surgeon investigator with a clinical focus on hepatobiliary oncology and expertise in health services research. Dr. Hallet will advance our activity in minimally invasive surgery.

**Dr. Patrick Henry** was recruited to the Division of Orthopaedic Surgery as a surgeon investigator with a clinical focus on upper extremity and trauma. His primary research priorities include sporting injuries to the shoulder and rotator cuff tears.

**Dr. David Wasserstein** was recruited to the Division of Orthopaedic Surgery as a surgeon investigator with a clinical focus on soft tissue and ligament reconstruction and sports medicine. The focus of Dr. Wasserstein's research is the clinical outcomes of soft tissue injury, surgery and reconstruction.

**Dr. Saied Nik** was recruited to the Burn Centre and the Division of Plastic and Reconstructive Surgery as a scientist at Sunnybrook Research Institute (Biological Sciences Platform) with a focus on stem cells and skin regeneration.

#### **Departures**

Dr. Manuel Dibildox, from the Division of Plastic and Reconstructive Surgery and Ross Tilley Burn Centre moved on to the Mayo Clinic to undertake a training program in plastic surgery.



### **Division Reports**

#### Cardiac surgery

**Dr. Stephen Fremes** won the Department of Surgery Charles H. Tator Surgeon-Scientist Mentoring Award for his remarkable track record mentoring graduate students over his career.

#### Neurosurgery

Dr. Victor Yang's innovations in surgical navigation were highlighted by the CBC and the Royal College. Dr. Leo Da Costa was promoted to Associate Professor.

## General Surgery

Dr. Shady Ashamalla assumed the role of Division Head, General Surgery (interim). Dr. Natalie Coburn was named the Hanna Chair in Surgical Oncology. Dr. Frances Wright was named the Temerty Chair in Breast Surgery. Dr. Homer Tien was awarded the Department of Surgery Undergraduate Teaching Award. Dr. Paul Karanicolas was the recipient of the Department of Surgery's Roscoe Reid Graham Scholarship.

## Plastic and Reconstructive Surgery

Dr. Oleh Antonyshyn received the Marvin Tile Award for his outreach activities in the Ukraine. His work was also recognized by Canada's Minister of Foreign Affairs, Rob Nicholson who committed \$1.2 million in support of this initiative. The Division and the Department of Surgery invested in critical equipment in the surgical skills laboratory to develop a simulator for microvascular reconstruction to the benefit of all trainees across the city. Dr. Shar Shahrokhi was promoted to Assistant Professor.

#### Urology

Dr. Laurie Klotz received the Canadian Cancer Society's O. *Harold Warwick Prize* for his significant advances in cancer control. He was also appointed as a member of the Order of Canada for his contributions to the treatment of prostate cancer, notably for leading the adoption of active surveillance as a standard aspect of patient care. Dr. Sender Herschorn received a presidential citation from the American Urological Association for his contributions related to his research for the treatment of urinary incontinence and over active bladder.

#### Orthopaedic Surgery

**Dr. Richard Jenkinson** successfully passed his continuing appointment review and recognizing his research productivity, was reclassified as a surgeon investigator. **Dr. John Cameron** won the Thomas R. Loudon Award honouring him for his outstanding service in the advancement of athletics related to his contributions to sports medicine.

#### Vascular Surgery

**Dr.** Giuseppe Papia and Dr. Andrew Dueck were featured on CTV news (Canada AM) for their innovative work on lower extremity angioplasty and limb salvage.



# Division of Cardiac Surgery

Dr. G.T. Christakis Professor

Dr. G. Cohen Associate Professor (Division Head)

Dr. S. Fremes Assistant Professor

Dr. F. Moussa Lecturer

#### **Publications**

Bel A, Borik W, Davidson S, Helies JM, Stimmer L, Fremes S, Zelenkofske S, Rusconi C, Alexander J, Alexander D, Menasché P, Pepper J. Inhibition of factor IXa by the pegnivacogin system during cardiopulmonary bypass: a potential substitute for heparin. A study in baboons. European Journal of Cardio-Thoracic Surgery. 2015 May 7.

Chan W, Ivanov J, Ko D, Fremes S, Rao V, Jolly S, Cantor WJ, Lavi S, Overgaard CB, Ruel M, Tu JV, Džavík V. Clinical outcomes of treatment by percutaneous coronary intervention versus coronary artery bypass graft surgery in patients with chronic kidney disease undergoing index revascularization in Ontario. Circulation Cardiovascular Interventions. 2015 Jan; 8(1).

Deb S, Fremes SE. Meta-analysis of staged versus combined carotid endarterectomy and coronary artery bypass grafting. Annals of Thoracic Surgery. 2014 Jul; 97(1): 109-10.

Deb S, Fremes SE. The conundrum of coronary revascularization: Stent or bypass. JTCVS. 2015 Mar; 149(3): 839-40.

Deb S, Singh SK, Moussa F, Tsubota H, Une D, Kiss A, Tomlinson G, Afshar M, Sless R, Cohen EA, Radhakrishnan S, Dubbin J, Schwartz L, Fremes SE, Radial Artery Patency Study Investigators. The long-term impact of diabetes on graft patency after coronary artery bypass grafting surgery: a substudy of the multicenter Radial Artery Patency Study. J Thorac Cardiovasc Surg. 2014 Oct 1; 148(4): 1246-53.

Deb S, Souza DS2, Fremes SE. Composite vein grafting: is it a "Y's" decision? JTCVS. 2015 Feb; 149(2): 494-5.

Deb S; Fremes SE. Outcomes of arterial revascularization. Seminars in Thoracic and Cardiovascular Surgery. 2014 Nov; 26(3): 174-5.

Deb S; Fremes SE. The changing scene of preoperative coronary diagnostics. JTCVS. 2015 Mar 13; PII:s00222-5223(15): 00320-7.

Deb S; Fremes SE. To bypass or stent? The changing rules of an advancing game. JTCVS. 2015 Mar; 149(3): 679-81.

Fremes, SE; Den, S. Are you ever too old? JTCVS. 2015 Feb; 149(2): 485-86.

Hébert PC, Fergusson DA, Hutton B, Mazer CD, Fremes S, Blajchman M, MacAdams C, Wells G, Robblee J, Bussières J, Teoh K; BART Investigators. Regulatory decisions pertaining to aprotinin may be putting patients at risk. Canadiam Medical Association Journal. 2014 Dec 9; 186(18): 1379-86.

Mathew JG, Spyropoulos AC, Yusuf A, Vincent J, Eikelboom J, Shestakovska O, Fremes S, Noora J, Guo L, Peterson M, Pai M, Whitlock R. Efficacy and safety of early parenteral anticoagulation as a bridge to warfarin after mechanical valve replacement. Thromb Haemost. 2014 Dec 1; 112(6): 1120-8.

Millar AC, Mete O, Cusimano RJ, Fremes SE, Keshavjee S, Morgan CD, Asa SL, Ezzat S, Gilbert J. Functional cardiac paraganglioma associated with a rare SDHC mutation. Endocr Pathol. 2014 Sep 1; 25(3): 315-20.

Pereg D, Fefer P, Samuel M, Wolff R, Czarnecki A, Deb S, Sparkes JD, Fremes SE, Strauss BH. Native coronary artery patency after coronary artery bypass surgery. JACC Cardiovasc Interv. 2014 Jul 1; 7(7): 761-7.

Stoppe C, McDonald B, Rex S, Manzanares W, Whitlock R, Fremes S, Fowler R, Lamarche Y, Meybohm P, Haberthür C, Rossaint R, Goetzenich A, Elke G, Day A, Heyland DK. SodiUm SeleniTe Administration IN Cardiac Surgery (SUSTAIN CSX(R)-trial): study design of an international multicenter randomized double-blinded controlled trial of high dose sodium-selenite administration in high-risk cardiac surgical patients. TRIALS. 2014 Aug 28; 15(1): 339.

Whitlock R, Healey JS, Connolly SJ, Wang J, Danter MR, Tu JV, Novick R, Fremes SE, Teoh K, Khera V, Yusuf S. Predictors of early and late stroke following cardiac surgery. Canadian Medical Association Journal. 2014 Jul 21; 131214.

Wijeysundera HC, Wong WW, Bennell MC, Fremes SE, Radhakrishnan S, Peterson M, Ko DT. Impact of wait times on the effectiveness of transcatheter aortic valve replacement in severe aortic valve disease: a discrete event simulation model. Can J Cardiol. 2014 Oct 1; 30(10): 1162-9.

Wolff R, Cohen G, Peterson C, Wong S, Hockman E, Lo J, Strauss B, Cohen E. MitraClip for Papillary Muscle Rupture in Patient With Cardiogenic Shock. Canadian Journal of Cardiology. 2014 Jul 22; 30(11): 1461.e13–1461.

Yanagawa B, Algarni KD, Singh SK, Deb S, Vincent J, Elituv R, Desai ND, Rajamani K, McManus BM, Liu PP, Cohen EA, Radhakrishnan S, Dubbin JD, Schwartz L, Fremes SE. Clinical, biochemical, and genetic predictors of coronary artery bypass graft failure. J Thorac Cardiovasc Surg. 2014 Aug 1; 148(2): 515-520.e2.

#### **Invited Visits**

Fremes, Stephen: Cardiology/Critical Care Journal Club, Cambridge, Ontario, Canada, 20 Nov 2014. Invited Speaker: Improving Outcomes in Coronary Artery Bypass Patients and Role of Medical Therapies post CABG.



#### **Grants, Contracts and Clinical Trials**

A simulation-based Curriculum for Training in OPCAB. Sunnybrook Education research Funds. Moussa F. (\$10,000.00 CAD, Mar 2015).

Left Atrial Appendage Occlusion Study III (LAAOS III). Canadian Institutes of Health Research (CIHR). Fremes S, Whitlock R. (\$5,859,280.00, Oct 2014 - Sep 2020).

POCT-ROTEM-Plateletworks Tiral. Canadian Institutes of Health Research (CIHR). Karkouti K, Moussa F, Callum J. (CAD, Jul 2014).

Screening and MAnagement Risk factors in TAVI; an interdisciplinary Endeavor (SMARTIE). Sunnybrook AFP Innovation Fund. Fremes S, Hermann N. (\$91,433.00 CAD, May 2015 - Apr 2017).

SodiUm SeleniTe Administration IN Cardiac Surgery (SUSTAIN CSX®-trial). Canadian Institutes of Health Research (CIHR). Fremes S, Heyland DK. (\$232,415.00, Jan 2014 - Jan 2016).

#### **Honours and Awards**

Fremes, Stephen: Charles H. Tator Surgeon-Scientist Mentoring Award, The Surgeon Scientist Program (SSP) at the University of Toronto. Dept of Surgery, Faculty of Medicine. May 2015

## Division of General Surgery

Dr. S. Ashamalla	Assistant Professor
Dr. F.D. Brenneman	Associate Professor
Dr. P.T.Y. Chu	Associate Professor
Dr. N. Coburn	Associate Professor (Division Head)
Dr. D. Fenech	Assistant Professor
Dr. J. Hallet	Assistant Professor
Dr. C. Holloway	Associate Professor
Dr. P.J. Karanicolas	Assistant Professor
Dr. C. Law	Professor
Dr. N.J. Look Hong	Assistant Professor
Dr. B. Nascimento	Assistant Professor
Dr. A.B. Nathens	Professor
Dr. T.M. Ross	Associate Professor
Dr. A.J. Smith	Professor
Dr. H. Tien	Associate Professor
Dr. L. Tremblay	Assistant Professor
Dr. F. Wright	Associate Professor

#### **Publications**

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#### **Invited Visits**

Coburn, Natalie: 11th International Gastric Cancer Congress 2015, São Paulo, Brazil, 4 Jun 2015. Speaker: 1) Splenectomy for proximal tumors. Routinely, optionally or never? 2) The spectre of gastric cancer in the world. 3) Invited Lecturer: Splenectomy for proximal tumors. Routinely, optionally, or never? 4) Chair: Gastric Cancer Epidemiology and Screening.

Hallet, Julie: 10e Congrès francophone de chirurgie digestive et hépato-bilio-pancréatique, Marne La Vallée, France, 27 Nov 2014. Speaker: Association entre l'hypophosphatémie et la récupération de l'insuffisance hépatique post-hépatectomie.

Hallet, Julie: Americas Hepato-Pancreato-Biliary Association Annual Meeting, Miami, Florida, United States, 13-14 Mar 2015. Speaker: 1) The impact of perioperative blood transfusion on short-term outcomes following pancreatectomy: an analysis from the American College of Surgeons National Surgical Quality Improvement Program (ACS-NSQIP). 2) Trans-thoracic Minimally Invasive Liver Resection Guided by Augmented Reality.

Hallet, Julie: Canadian Centre for Applied Research in Cancer Control, Montréal, Quebec, Canada, 15 May 2015. Speaker: Health System Costs of the Pre-diagnosis Phase in Neuroendocrine Tumours.

Hallet, Julie: Canadian Hepato-Pancreato-Biliary Association, Vancouver, British Columbia, Canada, 18 Sep 2014. Facilitator: Initiating a national quality agenda in hepato-pancreato-biliary surgery: How should we improve the processes of surgical care? Team Leader for Group Discussions.

Hallet, Julie: Canadian Surgery Forum - Canadian Association of General Surgeons, Vancouver, British Columbia, Canada, Sep 2014. Speaker: Defining the Neuroendocrine Tumors landscape: a 15-year population-based analysis of incidence, outcomes, and therapies.

Hallet, Julie: Neuroendocrine Tumors Departmental Grand Rounds. Department of Digestive and Endocrine Surgery, Nouvel Hôpital Civil, Institut Hospitalo-Universitaire de Strasbourg, Strasbourg, France, 15 Dec 2014. Invited Speaker: Working towards timely diagnosis and standardized patterns of care.

Holloway, Claire: Cancer Care Ontario, Toronto, Ontario, Canada, 4 Mar 2015. Invited Speaker: Diagnostic Assessment Programs in Ontario: the Way Forward.

Holloway, Claire: Cancer Care Ontario, Toronto, Ontario, Canada, 30 Jan 2015. Invited Speaker: The Disease Pathway Management Approach to Cancer Care Delivery.

Holloway, Claire: Cancer Care Ontario, Toronto, Ontario, Canada, 27 Aug 2014. Invited Speaker: Disease Pathway Management: A Framework for Best Practice.

Holloway, Claire: Ontario Association of Radiologists, Toronto, Ontario, Canada, 8 Oct 2014. Invited Lecturer: Preoperative MRI for Breast Cancer Staging: The Surgical Perspective.

Holloway, Claire: Southlake Regional Cancer Centre, Newmarket, Ontario, Canada, 17 Sep 2014. Invited Speaker: Diagnostic Assessment in Ontario: Past, Present and Future.

Karanicolas, Paul Jack: American College of Surgeons, San Francisco, California, United States, 30 Oct 2014. Invited Speaker: Downstaging of colorectal liver metastases: Is resection really the goal? 200 in audience.

Karanicolas, Paul Jack: Bayer Advisory Board, Barcelona, Spain, 29 Aug 2014. Invited Speaker.

Karanicolas, Paul Jack: Canadian General Surgery Review Program, Toronto, Ontario, Canada, 27 Feb 2015. Invited Speaker: Liver Masses.

Karanicolas, Paul Jack: Niagara Health System, Niagara-on-the-Lake, Ontario, Canada, 22 Oct 2014. Presenter: Surgical Update in Venous Thromboembolism Management.

Karanicolas, Paul Jack: Sanofi, Calgary, Alberta, Canada, 10 Oct 2014. Invited Speaker: A rationale approach to venous thromboembolism prophylaxis in patients undergoing cancer surgery.

Karanicolas, Paul Jack: Southwestern Ontario Surgical Association (SWOSA), London, Ontario, Canada, 21 Nov 2014. Invited Speaker: Gallstone Pancreatitis.

Karanicolas, Paul Jack: University of Manitoba, Winnipeg, Manitoba, Canada, 29 Apr 2015. Visiting Professor: 1) Contemporary Management of Colorectal Liver Metastases. 2) Prevention of VTE Following Major Cancer Surgery.

Karanicolas, Paul Jack: University of Saskatchewan, Saskatoon, Saskatchewan, Canada, 5-6 Mar 2015. Invited Speaker: 1) VTE Prophylaxis Following Major Cancer Surgery Department of OB/Gyn Grand Rounds. 2) VTE Prophylaxis Following Major Cancer Surgery Hematology Rounds. 3) Contemporary Management of Colorectal Liver Metastases General Surgery Resident Half Day. 4) VTE Prophylaxis Following Major Cancer Surgery Department of Surgery Grand Rounds.



Look Hong, Nicole J: Society of Surgical Oncology, Phoenix, Arizona, United States, 2014. Speaker: Cost Effectiveness Analysis of Staging Strategies in Regionally Metastatic Melanoma.

Nascimento, Barto: Calgary, Alberta, Canada, 11 Apr 2015. Invited Speaker: The FiiRST Trial on Early Use of Fibrinogen in Trauma.

Nascimento, Barto: CIRV FM 88.9, Toronto, Ontario, Canada, 10 Jan 2015. Radio show guest: The Life of a Trauma Physician.

Nascimento, Barto: Department of Anesthesia, Dalhousie University, Halifax, Nova Scotia, Canada, 18 Apr 2015. Invited Speaker: The Mechanisms of Acute Coagulopathy of Trauma.

Nascimento, Barto: Trauma Association of Canada, Calgary, Alberta, Canada, 10 Apr 2015. Presenter: Consent for Emergency Research (CONfER): a National Survey of Canadian Research Ethics Board Practices.

Nathens, Avery B: 1st Annual Geriatric Trauma Conference "G-60", Phoenix, Arizona, United States, May 2015. Distinguished Speaker: Geriatric Trauma Care: Reflecting on the Past While Looking Forward.

Nathens, Avery B: American College of Surgeons, San Francisco, California, United States, Oct 2014. Invited Speaker: How to use ACS NSQIP, TQIP, CQIP, and SSR in your institution.

Nathens, Avery B: Southwest Trauma & Acute Care Symposium, Phoenix, Arizona, United States, Nov 2014. Invited Speaker: TBI management for the Trauma Surgeon.

Nathens, Avery B: State of California, Health and Human Services Agency (EMS Authority), Palo Alto, California, United States, Aug 2014. Invited Speaker: National Benchmarking Initiatives.

Tien, Homer: CAWC and CAET, Toronto, Ontario, Canada, 1 Nov 2014. Invited Speaker: Trial and Tribulations from the Military Field Wounds and Wounding Patterns from Canada's War in AFghanistan.

Wright, Frances: British Columbia Cancer Agency, Vancouver, British Columbia, Canada, Oct 2014. Invited Speaker: Surgical management of locally advanced breast cancer Invited Speaker and sat on multiple panels.

Wright, Frances: Canadian Association of General Surgeons, Vancouver, British Columbia, Canada, 19 Sep 2014. Invited Speaker: General surgery graduates feel prepared for practice but is there a practice available?

Wright, Frances: General Surgery Canadian Review Course, Toronto, Ontario, Canada, 28 Feb 2015. Invited Speaker: Truncal and Extremity Melanoma National General Surgery Review Course for 5th year residents preparing for Royal College Exams.

Wright, Frances: Latin American and International Chapter Meeting American College of Surgeons, Cartagena, Colombia, 27-28 Jul 2014. Invited Speaker: 1) Melanoma: current management. 2) Axillary Node Dissection, Sentinel Node biopsy or nothing? 3) Management of Locally Advanced Breast Cancer: role of breast conserving surgery.

Wright, Frances: Multidisciplinary Cancer Conferences, LHIN 3, Guelph, Ontario, Canada, May 2015. Invited Speaker: MCCs.

Wright, Frances: Sault Ste Marie Cancer Centre, Sault Ste Marie, Ontario, Canada, Jun 2015. Invited Speaker: Surgical Management of Melanoma of The Trunk and Extremity - an update.

Wright, Frances: Update in MCCs, LHIN 8, Markham, Ontario, Canada, 25 Nov 2014. Invited Speaker: Update on MCCs in Ontario.

#### **Research and Investigations**

A multicentred randomized control trial of the use of extended peri-operative low molecular weight heparinto improve cancer specific survival following surgical reaction of colorectal cancer. *Ashamalla S, Auer R*. (Jul 2014 - present).

Accelerated Diffusion of Strategic Quality Initiatives for Diagnosis and Treatment of Cancer. Canadian Partnership Against Cancer, Cancer Care Ontario. Holloway C, Kaan M, Padewski S, Sarsfield L, Matheson G. (\$865,000.00 CAD, Apr 2014 - Mar 2016).

An innovative programme for teaching faculty an advanced minimally invasive surgical technique. *Adjudiction Committee*. *Ashamalla S.* (\$9,391.00 CAD, Mar 2014 - Mar 2015).

Breast Ablation Therapy (BAT). A novel treatment paradigm for early breast cancer. Tiffen Foundation. McCann C, Look Hong N, Sherar M, Pignol JP, Wright FC. (\$70,000.00 CAD, 2014 - 2014).

Canadian Colorectal Cancer Consortium (C4): clinincal and Molecular screening in patients with colorectal cancer and their family members. *Gallinger S.* (Jul 2014 - present).

Development and Implementation of an Educational Intervention to Optimize Communication and Care of Patients with Resectable Pancreatic Cancer from Diagnosis to Treatment. *Pancreatic Cancer Canada. Karanicolas P, Harth T, Gotlib Conn L, Wei A, Jayaraman S, Coburn N, Ellis J.* (\$91,400.00 CAD, 2014 - 2016).

Exploration of Physicians' Attitudes and Heuristics in Healthcare Delivery for Neuroendocrine Tumors. Sunnybrook Health Sciences Centre General Surgery Academic Enrichment Fund. Hallet J, Beyfuss K, Singh S, Wright FC, Gotlib Conn L, Law CHL. (\$10,000.00 CAD, Apr 2015 - Apr 2016).

Fibrinogen in the Initial Resuscitation of Severe Trauma: a randomized feasibility trial. Canadian Forces Health Services & CSL Behring Can. Nascimento B. (\$540,262.40 CAD, Apr 2014 - present).

Glucose control in severely burned patients: a prospective trial. Canadian Institutes of Health Research (CIHR). *Jeschke M.* (\$938,025.00, Apr 2014 - Mar 2019).

How is quality improvement learned in trauma case reviews. (Co-Investigator). Sunnybrook Health Sciences Centre General Surgery Associates. Tien H, Nathens A, Gotlib L. (\$10,000.00, Sep 2014 - Aug 2015).



Making surgery better: Developing an Enhanced Recovery after Surgery (ERAS) program undergoing pancreaticoduo-denectomy. *Pancreatic Cancer Canada*. Wei AC, Karanicolas P. (\$100,000.00 CAD, 2014 - 2016).

Metformin with neoadjuvant chemoradiation to improve pathologic responses in rectal cancer: a phase I-II trial. UT-DRO. Ashamalla S, Wong S. (\$50,000.00 CAD, Jul 2014 - Jun 2015).

Optimizing Interprofessional Communication at Sunnybrook Health Sciences Centre. Sunnybrook Health Sciences Centre Division of General Surgery AEF. Nathans A, Coburn N, Smith A, Taggar R, Hendrick-Hallet J. (\$10,000.00 CAD, Sep 2014 - Sep 2015).

Optimizing interprofessional communication between surgical nurses and housestaff: an exploratory study. Sunny-brook Health Sciences Centre, Ministry of Health and Long Term Care. Coburn N, Gotlib Conn, L. (\$99,986.00, Apr 2014 - Mar 2016).

Pancreatic Cancer Patient Education- Current Practices and Development of an Evidence- Based Educational Intervention. Sunnybrook Health Sciences Centre General Surgery Academic Enrichment Fund. Karanicolas PJ, Walser E, Hallet J, Goltib Conn L, Harth T. (\$10,000.00 CAD, Apr 2015 - Apr 2016).

Potentiating antiangiogenic cancer therapy with the antivascular effects of ultrasound stimulated microbubbles. Canadian Institutes of Health (CIHR). Goertz D, Hynynen K, Law C, Kerbel R. (\$314,396.00 CAD, Apr 2014 - Mar 2017).

Pre-operative radiological staging modalities in the treatment of gastric cancer. How accurate are we? AEF. Law C, Coburn N. (\$9,900.00 CAD, Mar 2014 - Mar 2015).

Prehospital Tranexamic Acid Use for Traumatic Brain Injury. National Heart, Lung, and Blood Institute (NHLBI), U.S. Army Medical Research and Materiel Command, Canadian Institutes of Health Research (CIHR), Heart and Stroke Foundation of Canada, American Heart Association, Defence Research and Development Canada. Nascimento B, May S, Schreiber M. (Apr 2015).

Reducing the Burden of Breast Cancer in Young Women (RUBY). Canadian Breast Cancer Foundation (CBCF). Wright F. (\$1,600,000.00 CAD, Jul 2014 - Jun 2015).

Short-term outcomes following surgical resection for gastric cancer in elderly patients. Sunnybrook Health Sciences Centre General Surgery Academic Enrichment Fund. Hallet J, Hamilton T, Law C, Coburn N. (\$10,000.00 CAD, Nov 2014 - Oct 2015).

Synoptic Pathology Reporting for Pancreatic Cancer: Has It Made a Difference? Coburn N, Kagedan D, Raju R, Rowsell C. (\$10,000.00 CAD, Sep 2014 - Sep 2015).

The HPB CONCEPT Team: An Integrated Program to Improve Outcomes Following Liver and Pancreas Surgery. Canadian Institutes of Health Research (CIHR). Karanicolas PJ. (\$300,000.00 CAD, Jul 2014 - Jun 2019).

The impact of imaging repository service-based imaging in hepato-pancreatico-biliary cancer care: a population-based analysis and cross-sectional study of providers and patients experiences. *Canada Health Infoway*. *Hallet J*, *Law CHL*. (CAD, Apr 2015 - Mar 2016).

Tranexamic Acid Versus Placebo to Reduce Perioperative Blood Transfusion in Patients Undergoing Major Liver Resection: A Pilot Randomized Controlled Trial. Canadian Institutes of Health Research (CIHR). Karanicolas P, Prosanto Chaudhury, Gordon Guyatt, Jeffrey Barkun, Elijah Dixon, Yulia Lin, Stuart McCluskey, Geoffrey Porter, Jordan Tarshis, Alice Wei. (\$248,319.00 CAD, Apr 2014 - Mar 2016).

Tranexamic Acid Versus Placebo to Reduce Periopertive Blood Transfusion in Patients Undergoing Major Liver Resection: A Pilot Randomized Controlled Trial. *PSI Foundation (Physicians' Services Incorporated Foundation). Karanicolas P.* (\$90,500.00 CAD, 2015 - 2017).

Trauma system development in Ontario: a survey of potential barriers and enablers for an inclusive system. Sunnybrook Health Sciences Centre General Surgery Associates Research Grant. Nathens AB. (\$10,000.00, Apr 2015 - Mar 2016).

Use of innovative knowledge translation strategies to reduce overuse of diagnostic imaging in early stage breast cancer. Canadian Cancer Society. Holloway C, Squires J, Arnaout A, Clemons M, Graham I, Grimshaw J, Simos D, Doherty G, Caudrelier JM, Trudeau M, Stacey D, Dacosta R. (\$100,000.00 CAD, Oct 2014 - Oct 2016).

Using Gadofosveset trisodium in the diagnosis of focal liver lesions in the cancer patient: a prospective trial. Canadian Liver Foundation. Karanicolas PJ, Milot L, Cheung. (\$86,700.00 CAD, 2014 - 2016).

#### **Honours Received**

Coburn, Natalie: Sherif and Mary Lou Hanna Chair for Surgical Oncology Research. Endowed Chair. Jan 2015 Fenech, Darlene: The Bruce Tovee Award for Undergraduate Teaching, Dept of Surgery, Faculty of Medicine. 2014

Karanicolas, Paul Jack: Roscoe Reid Graham Scholarship, U of T Department of Surgery, Ontario, Canada. 2014 - 2017.

Nathens, Avery B: Carolyn Tuohy Impact on Public Policy Award, University of Toronto, Toronto, Ontario, Canada. 2014.

Nathens, Avery B: de Souza Chair in Trauma Research, Sunnybrook Health Sciences Centre & the University of Toronto. May 2014

Tien, Homer: Bruce Tovee Award for Postgraduate Teaching. Dept of Surgery, Faculty of Medicine. Jul 2014 - Jun 2015.

Tien, Homer: Undergraduate Award For Excellence in Teaching, Department of Surgery, Sunnybrook Health Sciences Centre. Dept of Surgery, Faculty of Medicine. Jul 2014 - Jun 2015.

Wright, Frances: Temerty Chair in Breast Cancer Surgery, Sunnybrook Health Sciences Centre and University of Toronto, Toronto, Ontario, Canada. Jul 2014 - Jun 2015.



## Division of Neurosurgery

Dr. L. da Costa Assistant Professor Dr. M. Fazl Assistant Professor

Dr. T. Mainprize Assistant Professor (Interim Division Head)

Dr. N. Phan Assistant Professor Dr. F. Pirouzmand Assistant Professor

Dr. M.L. Schwartz Professor

Dr. V.X.D. Yang Associate Professor

#### **Publications**

da Costa L, Fierstra J, Fisher JA, Mikulis DJ, Han JS, Tymianski M. BOLD MRI and early impairment of cerebrovascular reserve after aneurysmal subarachnoid hemorrhage. Journal of Magnetic Resonance Imaging. 2014 Sep 21; 40: 972-979.

da Costa L, Fierstra J, Fisher JA, Mikulis, Han JD, Tymianski M. Early identification of brain tissue at risk for delayed cerebral ischemia after aneurysmal subarachnoid hemorrhage. Acta Neurochir Suppl. 2014 Nov 7; 120: 105-9.

da Costa L, Houlden D, Rubenfeld G, Tymianski M, Fisher J, Fierstra J. Impaired cerebrovascular reactivity in the early phase of subarachnoid hemorrhage in good clinical grade patients does not predict vasospasm. Acta Neurochir Suppl. 2014 Nov 7; 120: 249-53.

da Costa L, Robertson A, Bethune A, MacDonald MJ, Shek PN, Taylor MJ, Pang EW. Delayed and disorganized brain activation detected with magnetoencephalography after mild traumatic brain injury. Journal of Neurology, Neurosurgery and Psychiatry. 2014 Nov 5. United Kingdom. AID: doi:10.1136/jnnp-2014-308571. URL: http://jnnp.bmj.com/content/early/2014/10/16/jnnp-2014-308571.full?g=w\_jnnp\_open\_tab

Di Ieva A, Niamah M, Menezes RJ, Tsao M, Krings T, Cho, YB, Schwartz ML, Cusimano MD. Computational Fractal-Based Analysis of Brain Arteriovenous Malformation Angioarchitecture. Neurosurgery. 2014 Jul; 75(1): 72-979.

Goyal M, Demchuk AM, Menon BK, Eesa M, Rempel JL, Hill MD for the ESCAPE Trial Investigators. Randomized Assessment of Rapid Endovascular Treatment of Ischemic Stroke. The New England Journal of Medicine. 2015 Feb 14. United States. AID: DOI: 10.1056/NEJMoa1414905.

Kumar A, Keith J, da Costa L. Thoracic cord herniation and associated intra-operative nuances: A report. European Spine Journal. 2014 Oct 16.

Kumar A, Yang V, da Costa L. Pipeline stents for partially thrombosed posterior circulation aneurysms: A word of caution! Neurology India. 2014 Sep 8; 62(4): 449-451.

Kumar A, Yang V, da Costa L. Traumatic anterior cerebral artery aneurysms and management options in the endovascular era. Journal of Clinical Neuroscience. 2015 May 11.

Lipsman N, Mainprize TG, Schwartz ML, Hynynen K, Lozano AM. Intracranial applications of magnetic resonance-guided focused ultrasound. Neurotherapeutics. 2014 Jul; 11(3): 593-605.

N'Djin WA, Burtnyk M, Lipsman N, Bronskill M, Kucharczyk W, Schwartz ML, Chopra R. Active MR-temperature feedback control of dynamic interstitial ultrasound therapy in brain: In vivo experiments and modeling in native and coagulated tissues. Medical Physics. 2014 Sep; 41(9): 093301.

Pirouzmand F, Yang V. New technique for reduction duroplasty during cranioplasty. British J Neurosurgery. 2015 Jun 27.

Vuong B, Lee AMD, Luk TWH, Sun C, Lam S, Lane P, Yang VXD. High speed, wide velocity dynamic range Doppler optical coherence tomography (Part IV): split spectrum processing in rotary catheter probes. Optics Express. 2014; 22(7): 7399-7415.

#### **Invited Visits**

da Costa, Leodante: 10th Current Controversies in Spine Surgery, Royal Oak, Michigan, United States, 18 Jul 2014. Invited Speaker: Surgical approaches to traumatic lesions of the sub-axial spine.

da Costa, Leodante: EANS, Prague, Praha, hlavní mesto, Czech Republic, 14 Oct 2014. Presenter: 1) Magnetoencephalographic evidence of difficulties with mental flexibility after mild traumatic brain injury. 2) Temporal profile of cerebrovascular reactivity impairment, grey matter volumes and post-concussion symptoms.

da Costa, Leodante: Focused Ultrasound Foundation - 4th International Symposium on Focused Ultrasound, Bethesda, Maryland, United States, 13 Oct 2014. Invited Speaker: 1) MRI guided focused ultrasound for treatment of intracranial hemorrhage. 2) MRI Guided Focused Ultrasound to open the Blood Brain Barrier in Tumours.

da Costa, Leodante: Global, Ontario, Canada, 10 May 2014. Emergency brain surgery. URL: http://globalnews.ca/news/1321906/mothers-day-after-brain-surgery-c-section-mom-thriving-with-twins/



#### **Research and Investigations**

Biophotonics Experimental Operating Room. Canada Foundation for Innovation (CFI). Yang V. (\$966,245.00, 2014 - 2019).

Correlation of BOLD imaging of cerebrovascular reserve with CO2 in patients with persistent post-concussion symptoms. NFL-GE, NFL-GE Brain Challenge. da Costa L, Fisher J, Howard P, MacIntosh B. (\$300,000.00 USD, Jan 2014 - Jan 2016).

Magnetoencaphalography in aneurysmal subarachnoid hemorrhage: a pilot study. (Principal Investigator). AFP, Neurosurgery. da Costa L, Pang E, Taylor M, Bethune A. (\$25,000.00 CAD, May 2014 - Jul 2015).

Optical coherence tomography, optical topographical imaging and fluorescence guided surgical laser ablation. *Natural Sciences and Engineering Research Council of Canada (NSERC)*. Yang V. (\$185,000.00, 2014 - 2019).

Optical imaging guidance for hard and soft tissue ablation. Canadian Institutes of Health Research (CIHR). Yang V. (\$1,012,000.00, 2014 - 2019).

Refined Manufacturing Acceleration Process - "Optically guided laser ablation with integrated surgical navigation" in the theme of Miniaturizing and Cost Reduction of Optical Technologies for New Markets. *Networks of Centres of Excellence, Refined Manufacturing Acceleration Process. Yang V.* (\$236,000.00 CAD, 2014 - Jun 2018).

Refined Manufacturing Acceleration Process. Networks of Centres of Excellence (NCE). Yang V.XD. (\$236,000.00, 2014 - 2018).

Surgical Navigation Technology. FedDev, IBI Initiative. Yang V. (\$997,000.00 CAD, 2015 - 2018).

#### **Honours Received**

Mainprize, Todd: Dr. Tile Distinguished Service Award, Sunnybrook Health Sciences Centre, Dept of Surgery, Faculty of Medicine, Ontario, Canada. May 2014 - May 2015.

## Division of Orthopaedics

Dr. T.S. Axelrod	Professor
Dr. H.U. Cameron	Associate Professor
Dr. J.C. Cameron	Assistant Professor
Dr. J.A. Finkelstein	Associate Professor
Dr. M. Ford	Assistant Professor
Dr. J. Gollish	Assistant Professor
Dr. R. Holtby	Assistant Professor
Dr. R. Jenkinson	Assistant Professor
Dr. H.J. Kreder	Professor (Division Head)
Dr. 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. V.M.R. Wadey	Associate Professor
Dr. D. Wasserstein	Assistant Professor
Dr. C. Whyne	Associate Professor
Dr. C.S. Wright	Assistant Professor
Dr. A. Yee	Professor

### **Publications**

Akens MK, Wise-Milestone L, Won E, Schwock J, Yee AJ, Wilson BC, Whyne CM. In vitro and in vivo effects of photodynamic therapy on metastatic breast cancer cells pre-treated with zoledronic acid. Photodiagnosis Photodyn Ther. 2014 Sep; 11(3): 426-33.

Alolabi B, Lesieur M, Smilovici B, Koo K, Jenkinson RJ. Forearm Compartment Syndrome as a Result of Eosinophilic Fasciitis. Journal Hand Surg Am. 2015 Apr; 40(4): 707-10

Axelrod TS. Exposures of the Elbow. Gupta, Amit (eds), Hand Clinics. 2014 Nov 15; 30(4): 415-425.

Bernick J, Wang Y, Sigal IA, Alman BA, Whyne CM, Nam D. Parameters for lithium treatment are critical in its enhancement of fracture-healing in rodents. J Bone Joint Surg Am. 2014 Dec 3; 96(23): 1990-1998.

Bhandari M, Devereaux PJ, Einhorn TA, Thabane L, Schemitsch EH, Koval KJ, Frihagen F, Poolman RW, Tetsworth K, Guerra-Farfán E, Madden K, Sprague S, Guyatt G; HEALTH Investigators (including Richard Jenkinson). Hip fracture evaluation with alternatives of total hip arthroplasty versus hemiarthroplasty (HEALTH): protocol for a multi-



centre randomised trial. BMJ Open. 2015 Feb 13; 5(2).

Bheeshma R, Escott BG, Wasserstein D, Croxford R, Hollands S, Paterson JM, Kreder HJ, Hawker GA. Intra-articular hip injection and early revision following total hip arthroplasty: A retrospective cohort study. Hoboken, N.J. (eds), Arthritis & Rheumatology. 2015 Jan; 67(1).

Bruinsma WE, Guitton T, Ring D. Science of Variation Group (including Richard Jenkinson). Radiographic loss of ontact between radial head fragments is moderately reliable. Clin Orthop and Relat Res. 2014 Jul; 472(7): 2113-9.

Buckley R, Leighton R, Sanders D, Poon S, Coles CP, Stephen D, Paolucci EO, Canadian Orthopaedic Trauma Society. Open reduction internal fixation compared with ORIF and primary subtler arthrodesis for treatment of Sanders type IV calcaneal fractures: A randomized multi centretrial. The Journal of Orthopaedic Trauma. 2014 Oct; 28(10): 577-83.

Burgers PT, Poolman RW, Van Bakel TM, Tuinebreijer WE, Zielinski SM, Bhandari M, Patka P, Van Lieshout EM; HEALTH and FAITH Trial Investigators (including Richard Jenkinson). Reliability, validity, and responsiveness of the Western Ontario and McMaster Universities Osteoarthritis Index for elderly patients with a femoral neck fracture. J Bone Joint Surg Am. 2015 May 6; 97(9): 751-7.

Chow E, Finkelstein JA, Sahgal A, Coleman RE. Metastatic cancer to the bone. In: Wolters Kluwer Health/Lippincott Williams & Wilkins (eds), Devita, Hellman, and Rosenberg's Cancer: Principles and Practice of Oncology. 10th Edition. 2014 Jul: Chapter 126. United States: Lippincott Philadelphia.

Chow S, McDonald R, Yee A, Finkelstein J, Ford M, David E, Pulenzas N, Chow R, DeAngelis C, Chow E. A multi-disciplinary bone metastases clinic at Sunnybrook Odette Cancer Centre: A review of the experience from 2009-2014. Journal of Pain Management. 2015 Feb; 8(2).

Crookshank MC, Beek M, Hardisty MR, Schemitsch EH, Whyne CM. 3D atlas-based registration can calculate malalignment of femoral shaft fractures in six degrees of freedom. Comput Aided Surg. 2014; 19(1-3): 48-56.

Crookshank MC, Edwards MR, Sellan M, Whyne CM, Schemitsch EH. Can Fluoroscopy-based Computer Navigation Improve Entry Point Selection for Intramedullary Nailing of Femur Fractures? Clin Orthop Relat Res. 2014 Sep; 472(9): 2720-7.

Dvorak MF, Noonan VK, Fallah N, Fisher CG, Finkelstein J, Kwon BK, Rivers CS, Ahn H, Paquet J, Tsai EC, Townson A, Attabib N, Bailey CS, Christie SD, Drew B, Fourney Dr, Fox R, Hurlbert RJ, Johnson MG, Linassi AG, Parent S, Fehlings MG. The influence of time from injury to surgery on motor recovery and length of hospital stay in acute traumatic spinal cord injury: an observational Canadian cohort study. Journal of Neurotrauma. 2014 Nov 19; PMID: 25333195.

Dwyer T, Glover Takahashi S, Kennedy Hynes M, Herold J, Wasserstein D, Nousiainen M, Ferguson P, Wadey V, Murnaghan ML, Leroux T, Semple J, Hodges B, Ogilvie-Harris D. How to assess communication, professionalism, collaboration and the other intrinsic CanMEDS roles in orthopedic residents: use of an objective structured clinical examination (OSCE). Canadian Journal of Surgery. 2014 Aug; 57(4): 230-236.

Dwyer T, Razmjou H, Henry P, Gosselin-Fournier S, Holtby R. Association between pre-operative magnetic resonance imaging and reparability of large and massive rotator cuff tears. Knee Surg Sports Traumatol Arthrosc. 2015 Feb 23; 2015 Feb;23(2):(2): 415-22.

Dwyer T, Razmjou H, Holtby R. Full-thickness rotator cuff tears in patients younger than 55 years: clinical outcome of arthroscopic repair in comparison with older patients. Knee Surg Sports Traumatol Arthrosc. 2015 Feb 23: 508-13.

Finkelstein J. Handbook of Bone Metastases, Second Edition. Bedard, Gillian; Wong, Erin; Goh, Philiz; Chow, Edward. (eds), 2nd Edition. 2014. Canada: Odette Cancer Centre, Sunnybrook Hospital. This book was printed with the support of an educational grant from Bayer HealthCare Pharmaceuticals Inc. Editor.

Hageman MG, Jayakumar P, King JD, Guitton TG, Doornberg JN, Ring D, Science of Variation Group. The factors influencing the decision making of operative treatment for proximal humeral fractures. J Shoulder Elbow Surg. 2015 Jan 1; 24(1): e21-6.

Henry P, Wasserstein D, Paterson M, Kreder H, Jenkinson R. Risk factors for reoperation and mortality following the operative treatment of tibial plateau fractures in Ontario, 1996-2009. Journal of Orthopaedic Trauma. 2015 Apr; 29(4): 182-8

Henry PDG, Jenkinson RJ, Kreder HJ. Outcomes of Pelvic Ring Fractures in Adults. In: Marvin Tile, David Helfet, James Kellam, Mark Vrahas (eds), Fractures of the Pelvis and Acetabulum: Principles and Methods of Management. 4. 2015 Mar. Thieme.

Holtby R, Boljanovic D, Wright S, Murnaghan JJ. Association between Neuropathic Pain and Reported Disability Following total Knee Replacement. 2015 Jan 7.

Hoogenes J, Mironova P, Safir O, McQueen SA, Abdelbary H, Drexler M, Nousiainen M, Ferguson P, Kraemer W, Alman B, Reznick RK, Sonnadara RR. Student-led learning: a new teaching paradigm for surgical skills. American Journal of Surgery. 2015 Jan; 209(1): 107-114.

Jenkinson R, Canadian Orthopaedic Trauma Society. "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. 2015.

Jenkinson R. Chapter 9: Principles of Plate fixation: Rib fracture applications. In: Mckee; Schemitch (eds), Injuries to the Chest Wall. 2015. Springer.

Jenkinson RJ, Rubenstein J, Tile M. Defining the injury: Assessment and principles of management of pelvic ring and the acetabulum. In: Editors: Marvin Tile, David Helfet, James Kellam, Mark Vrahas. (eds), Fractures of the Pelvis and Acetabulum: Principles and Methods of Management. 4. 2015 Mar. Thieme.

John J Murnaghan MD, Lorcan McGonagle MD. Blood Management Strategies in Lower Limb Arthroplasty. Ortho-



paedics and Trauma Journal. 2015 Jan 6.

Khoshbin A, Bouchard M, Wasserstein D, Leroux T, Law PW, Kreder HJ, Daniels TR, Wright JG. Reoperations after Tarsal Coalition Resection: A Population-based Study. J Foot Ankle Surg. 2014 Jul 5. PMID: 25008362. AID: doi: 10.1053/j.jfas.2014.04.027; pii: S1067-2516(14)00214-2.

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## **Invited Visits**

Axelrod, Terry S: 2nd Annual Jesse Jupiter International Hand Forum, Harvard University Medical School, Boston, Massachusetts, United States, 31 May 2015. Invited Speaker: 1) Distal Radio-ulnar joint injures, What to do? 2) How does one manage the fractured distal ulna associated with a distal radius fracture? 3) Humerus Fracture with Radial Nerve injury, What to do?

Axelrod, Terry S: Advanced Fracture Course, AO Trauma Middle Europe, Warsaw, Poland, 25 May 2015. Invited Lecture: 1) Proximal Humerus Fractures: To fix, replace or leave alone? Lecture: Interactive on Management of Proximal Humerus fractures. 2) State of the Art in the management of the multiply injured patient. Lecture: Interactive on Management of the multi-trauma patient.

Axelrod, Terry S: AO North America Basic Principles of Fracture Management Course, AO Trauma North America,



Markham, Ontario, Canada, 20-23 Nov 2014. 1) Chair. 2) Speaker: The history of fracture care.

Axelrod, Terry S: AO Trauma North America, Toronto, Ontario, Canada, 13 May 2015. Chair: Chair of case based presentations; Talks on DRUJ injuries, Shear injuries and management of the small articular fragments Management of Complex Distal Radius Fractures: Webinar Web based teaching symposia.

Axelrod, Terry S: AONA Trauma Advanced Upper Extremity, AO Trauma North America, Miami, Florida, United States, 24 Apr 2015. Lecturer: 1) Anatomy of the Elbow. 2) ORIF of the Distal Humerus. 3) Exposures of the Elbow. 4) ORIF of the Scaphoid. 5) The Adams DRUJ Procedure.

Axelrod, Terry S: AOTrauma International Advanced Principles of Fracture Management, AOTrauma International, Davos, Graubünden (de), Switzerland, 9 Dec 2014. Invited Lecturer: 1) Update on Intra-articular Distal Radius Fractures. 2) Arthroplasty for Proximal Humerus Fractures

Axelrod, Terry S: AOTrauma North America, Houston, Texas, United States, 19-21 Sep 2014. Invited Lecturer: 1) Peri-prosthetic Fracture Management: Upper extremity Peri-implant fractures. 2) Elbow: Surgical Management of the Terrible Triad. 3) Late reconstruction of AC Joint injuries Shoulder Girdle Trauma. 4) Proximal Humerus Fracture: Replacement Arthroplasty. 5) Proximal Humerus Fracture: Avoiding Commom Complications of Management. 6) Distal Radius Fractures: Optimizing Surgical Management avoiding Pitfalls. 7) Distal Radius Fractures: Mal-union after Distal Radius Fracture. 8) Distal Radius Fractures: Salvage after Distal Radius Fracture Treatment.

Axelrod, Terry S: AOTrauma North America, Las Vegas, Nevada, United States, 24 Jan 2015. Invited Speaker: Anatomy of the Elbow and Surgical Exposures Case based presentation of elbow injuries, anatomy and surgical exposures. Cadaver dissections. CORR Trauma Course, Mississauga, Ontario, Canada, 14 Nov 2014. Invited Lecturer: "Proximal Tibia Fractures: the Top 10 Things You Need to Know".

Finkelstein, Joel A: Chinese Anti Cancer Association - Second International Summit Forum of New Concept on Musculoskeletal Oncology, Beijing, China, 14 Mar 2015. Invited Speaker: Minimally invasive approaches to metastatic disease to the spine.

Finkelstein, Joel A: International Society for Quality of Life Annual Meeting, Berlin, Germany, 16 Oct 2014. Invited Speaker: What can content analysis of the medical record tell us about the physician-patient communication?

Finkelstein, Joel A: Liaoning Cancer Hospital and Institute, Dalian University, Shengyeng, China, 15 Mar 2015. Invited Speaker: Minimally invasive approaches to metastatic disease to the spine.

Finkelstein, Joel A: One AO: AO North America, Las Vegas, United States, 5 Feb 2015. Presenter: When patients and surgeons disagree about surgical outcome: Investigating patient factors and chart note communication.

Henry, Patrick David George: AAOS Annual Meeting 2014. Speaker: 1) Assessing knowledge translation in orthopaedic surgery using time-series analysis of clavicle fracture treatment. 2) Re-operation following open reduction internal fixation of midshaft clavicle fractures in Ontario, Canada.

Jenkinson, Richard: AO North America - Ortho Advanced Principles Course, Toronto, Ontario, Canada, 22 Nov 2014. Invited Speaker: 1) Bone Graft Substitutes: Update. 2) Mangled Extremity: Decision Making: Salvage vs Amputation.

Kreder, Hans Juergen: AO North America - Ortho Advanced Principles Course, Toronto, Ontario, Canada, 21 Nov 2014. Invited Speaker: 1) Articular Fractures - Knee - Questions/Answers and Airs. 2) Difficult Problems - Staying out of Trouble.

Kreder, Hans Juergen: AO Trauma North America, Rosemont, Illinois, United States, 23-25 Apr 2015. Invited Speaker: 1) Basic Principles of Fracture Management for Residents Radiographic Evaluation and Classification of Pelvic Ring Injuries. 2) Basic Principles of Fracture Management for Residents The History of Fracture Carew and the Evolution of Principles. URL: www.aona.org

Kreder, Hans Juergen: AO Trauma North America, Toronto, Ontario, Canada, 14-17 May 2015. Invited Lecturer: 1) Outcomes of Pelvic Trauma Management and Avoidance of Complications DIscussion of the potential complications involved in managing pelvic trauma and how to minimize manage them. 2) Anterior Surgical Approaches to the Pelvis and Acetabulum Guiding surgeons through an understanding of the application and execution of the anterior pelvic approaches with a view to managing complex pelvic and acetabular fractures. 3) Acute Management of High Energy Pelvic Trauma Discussion aimed at improving understanding and management of the patient who presents in shock with multiple complex system injuries and a pelvic ring injury.

Kreder, Hans Juergen: AO Trauma: Fellows Cadaver Symposium, Las Vegas, Nevada, United States, 24 Jan 2015. Invited Lecturer: Surgical Approaches to the Elbow and Forearm: The Dorsal Thompson Approach Advanced surgical exposures for trauma fellows. This module was on the surgical exposures about the elbow and forearm.

Kreder, Hans Juergen: AOTrauma International, Davos, Graubünden (de), Switzerland, 8-9 Dec 2014. Invited Lecturer: 1) Principles of Fixation. 2) When and How to do it. 3) Worst Case Scenario.

Kreder, Hans Juergen: AOTrauma Master's Course, Houston, Texas, United States, 19-21 Sep 2014. Invited Speaker: 1) Infected periprosthetic fractures: Tips and tricks. 2) Prosthetic infections. 3) Clavicle Fractures: Indications and Current Techniques of Treatment. 4) Fractures about the elbow - Intro - Why are elbow injuries difficult to treat? 5) Proximal Humerus Fractures: Role for Intramedullary Nailing. 6) Distal Radius Fractures: Options for Conservative Treatment, Tips & Tricks, Outcome & Questions. 7) Distal Radius Fractures: Options for conservative treatment, indications, tips and tricks, outcomes and questions - tibial plateau.

Kreder, Hans Juergen: Canadian Hip Fracture Management Conference, Toronto, Ontario, Canada, 23 Mar 2015. Invited Speaker: Improving Hip Fracture Care in Ontario - access to surgery, optimal surgical management, dealing with delirium, reintegration into society, primary and secondary prevention.

**Kreder, Hans Juergen:** University of Manitoba Department of Surgery, Winnipeg, Manitoba, Canada, 21 Jan 2015. Visiting Professor: Surgical Complications and Outcomes: The Effect of Surgeon, Hospital and Systems of Care.



Murnaghan, John James: OOA Regional Conference, Ontario Orthopaedic Association, Toronto, Ontario, Canada, 7 Nov 2014. Invited Speaker: MD E-Learning - My Top 5 Orthopaedic Online Resources.

Nam, Diane: University of Ottawa, Ottawa, Ontario, Canada, 5 Feb 2015. Invited Speaker: JOINTS Shoulder Course. Proximal Humerus Fractures; Primary Shoulder Arthroplasty.

Nousiainen, Markku: American Academy of Orthopaedic Surgeons, Las Vegas, Nevada, United States, 24 Mar 2015. Invited Lecturer: The Management of Periprosthetic Femur Fractures Around a Well-Fixed TKA: Nail versus Plate Instructional Course.

Nousiainen, Markku: annual national sales meeting, Zimmer Canada, Scottsdale, Arizona, United States, 17 Jan 2015. Invited Speaker: What you need to know to be successful: an Orthopaedic Surgeon's Perspective.

Nousiainen, Markku: AO North America, Markham, Ontario, Canada, 22 Nov 2014. Invited Lecturer: "Pilon Fractures", AO Trauma North America Basic Principles of Fracture Management For Residents Course.

Nousiainen, Markku: AO Trauma North America Basic Principles of Fracture Management for Residents Course, AO North America, Markham, Ontario, Canada, 21 Nov 2014. Invited Lecturer: "Practical Exercise IV: Intramedullary Nailing".

Nousiainen, Markku: AO Trauma North America Basic Principles of Fracture Management Course, AO North America, Houston, Texas, United States, 19 Sep 2014. Invited Lecturer: 1) "Plate Design and Function". 2) "Practical Exercise II: Absolute Stability".

Nousiainen, Markku: AO Trauma North America Course -- Pelvic and Acetabular Management AO North America, Toronto, Ontario, Canada, 14 May 2015. Invited Lecturer: 1) "Anterior Pelvic Ring Fixation". 2) "Practical Exercise I: Symphysis Plating".

Nousiainen, Markku: Department of Orthopaedic Surgey, University of Texas Medical School, Houston, Texas, United States, 19 Dec 2014. Presenter: "Am I a competent resident? 5 Years of Competency Based Training in the Orthopaedic Surgery Residency Training Program at the University of Toronto" Departmental Grand Rounds.

Nousiainen, Markku: Dewar Orthopaedic Society, San Francisco, California, United States, 6 Feb 2015. Invited Lecturer: Do Transcortical Screws in a Locking Plate Construct Improve the Stiffness in the Fixation of Vancouver B1 Periprosthetic Femur Fractures? A Biomechanical Analysis of Two Different Plating Constructs.

Nousiainen, Markku: Royal College Simulation Summit 2014, Toronto, Ontario, Canada, 11 Sep 2014. Invited Lecturer: Tools for Assessment of Technical Skills.

Nousiainen, Markku: Schatzker Trauma Meeting, Kelowna, British Columbia, Canada, 23 May 2015. Invited Speaker: 1) Management of Subtrochanteric Femur Fractures. 2) Management of Distal Femur Fractures.

Nousiainen, Markku: Zimmer 2nd Annual Trauma Masterclass, Vancouver, British Columbia, Canada, 27 Sep 2014. Invited Speaker: 1) Periprosthetic Femur Fractures. 2) Current Concepts in Hip Fracture.

Nousiainen, Markku: Zimmer 3rd Annual Trauma Masterclass, Toronto, Ontario, Canada, 9 May 2015. Invited Speaker: 1) Current Concepts in Tibial Plateau Fracture. 2) Current Concepts in Hip Fracture.

Richards, Robin Richard: 3rd Annual Shoulder Course, International Congress for Joint Reconstruction, Las Vegas, Nevada, United States, 19-20 Sep 2014. 1) Speaker: Proximal Humeral Fractures - When to Repair? When to Replace? 2) Facilitator: What Would You Do? 3) Speaker: Diagnosing Instability and its Direction. 4) Speaker: First Time Dislocator - Surgery or Rehabilitation.

Stephen, David J. G: 16th Annual Chicago Trauma Symposium, Chicago, Illinois, United States, 5-6 Sep 2014. Invited Speaker: 1) Moderator - Tibia Session - Tibial nonunion/malunion - gaining union and alignment. 2) Femoral nonunion/malunion - strategy and tactics.

Stephen, David J. G: 26th Emile Letournel Institute Course and Workshop, Santa Monica, California, United States, 28 Sep 2014. Invited Speaker: 1) Sacroiliac fracture-dislocations and ilium fractures. 2) Surgical treatment of pelvic fractures. 3) Delayed reconstruction of pelvic fractures. 4) Practical exercise: Reduction and fixation of pelvic fractures.

Stephen, David J. G: AO North America - AO Trauma Course - Solutions for Problem Fractures and Post-Traumatic Complications, San Francisco, California, United States, 18 Apr 2015. Speaker: 1) Distal femoral valgus producing osteotomy. 2) Faculty Failures. 3) Non-Unions and Malunions. 4) Valgus intertrochanteric osteotomy of the proximal femur for a femoral neck nonunion. 5) General Principles and Failures.

Stephen, David J. G: AOTrauma Course - Basic Principles of Fracture Management, Davos, Switzerland, 8-11 Dec 2014.

1) Moderator: Management of articular fractures of the lower extremities. 2) Table Instructor: Implant removal. 3) Facilitator: Fractures of the femoral diaphysis (including subtrochanteric fractures). 4) Skills Lab - Leader: Mechanics of intramedullary fixation.

Stephen, David J. G: AOTrauma Masters Course, Houston, Texas, United States, 20 Sep 2014. Invited Speaker: 1) Femoral Head and Neck Fractures. 2) Module Leader - Periprosthetic Fractures. 3) Co-Chair / Faculty: New course design with cadavers.

Stephen, David J. G: Ortho Advanced Principles Course, AO North America, Toronto, Ontario, Canada, 21 Nov 2014. Chair: 1) Introduction/Welcome/How to Maximize your Experience. 2) ARS Pre-Test. 2) ARS Post-Test.

Wadey, Veronica Marie Rita: New Territories Command of Hong Kong St. John Ambulance Brigade, Hong Kong, 1 Sep 2014. Invited Speaker: "Pre-hospital management of open fractures".

Yee, Albert: Liaoning Cancer Hospital and Institute, Dalian University - The First International Summit Forum Musculoskeletal Oncology of North East China, Beijing, Liaoning, China, 15 Mar 2015. Distinguished Speaker: Translating Research from the Bench to Clinic: Multimodal therapy in vertebral metastasis -- preliminary results of a Phase I Clinical Trial of Vertebral Metastasis.



Yee, Albert: Project Vietnam (Hospital Presentation at Bien Vien San Nhi Nghe An), Vinh, Nghe An, Viet Nam, 20 Mar 2015. Lecturer: Paediatric Spine Immobilization.

Yee, Albert: Sarcoma Professional Committee, Chinese Anti-Cancer Association - Second International Summit Forum of New Concept in MSK Oncology, Beijing, China, 14 Mar 2015. Distinguished Speaker: (Keynote Speaker) Translating Research from the Bench to Clinic: Multimodal therapy in vertebral metastasis -- preliminary results of a Phase I Clinical Trial of Vertebral Metastasis.

Yee, Albert: Sarcoma Professional Committee, Chinese Anti-Cancer Association - Second International Summit Forum of Bone and Soft Tissue Tumor, Beijing, China, 14 Mar 2015. Distinguished Speaker: (Keynote Speaker) Translating Research from the Bench to Clinic: Multimodal therapy in vertebral metastasis -- preliminary results of a Phase I Clinical Trial of Vertebral Metastasis Sumit forum with audience of 100 orthopaedic surgeons specialized in musculoskeletal tumour from all around China.

#### **Research and Investigations**

Application of thermal cycling to minimize biofilm formation on orthopedic metal implants. *Katchky R*, *Bellisario E*, *Akens M*, *Kreder H*, *Finkelstein J*. (\$20,000.00 CAD, Apr 2015 - Apr 2016).

Application of Thermal Cycling to Minimize Biofilm Formation on Orthopaedic Metal Implants. Ontario Centres of Excellence (OCE)/Thermal Technology Canada Inc, Voucher for Innovation and Productivity (VIP I). Finkelstein JA. (\$40,000.00 CAD, May 2015 - Oct 2015).

Custom craniofacial implant. OCE-ICIGT (Industry Consortium for Image Guided Therapy) R&D Challenge Fund, OCE VIA program. Whyne C, Antonyshyn O. (\$100,000.00 CAD, Apr 2015 - Mar 2017).

Do Functional Braces Reliably Protect Critical Knee Structures in the Anterior Cruciate Ligament Deficient Athlete? ConMed Linvatec, Tomescu S, Chandrashekar N, Chahal J, Marks P. (\$20,000.00, Jan 2015 - Dec 2015).

Evaluating the 48-hour benchmark for surgery: The Canadian collaborative study of hip fractures. CIHR, Canadian Institutes of Health Research. Kreder HJ, Sobolev BG. (Jan 2014 - Jul 2014).

Finding the complex patient in patient-centred care: an institutional ethnography of chronic pain management in family medicine. Canadian Institutes of Health Research (CIHR). Yee A, Webster F. (\$238,578.00 CAD, 2014 - 2016).

Hip Fracture Accelerated Surgical Treatment and Care Track (HIP ATTACK) Trial. AO Foundation. Kreder HJ, Devereaux PJ, Bhandari M, Stephen DJG, Petrisor B. (\$114,960.28, Jul 2014 - Jul 2016).

Hip Fracture Accelerated Surgical Treatment and Care Track (HIP ATTACK) Trial. Ontario SPOR SUPPORT Unit (OSSU). Kreder HJ, Devereaux PJ, Bhandari M, Jenkinson RJ, Stephen DJG, Petrisor B. (\$1,849,614.00 CAD, Jul 2014 - Jul 2016).

Nonlinear optical imaging for digital pathology. Canadian Institutes for Health Research/NSERC, Collaborative Health Research Projects. Whyne C, Barzda V, Wilson B. (\$1,266,900.00 CAD, Jul 2014 - Jun 2017).

Patient Specific Craniofacial Implant Generation: Improving workflow, Reducing Cost and Facilitating Expansion. Ontario Centres of Excellence (OCE). Whyne C. (\$45,000.00 CAD, Apr 2014 - Oct 2014).

The Assessment of Entrustable Professional Activity's (EPA's) using simulation. OMeGA Medical Grant. Nousiainen M, Dwyer T. (\$8,909.00 USD, May 2014 - present).

The Effect of After-Hours Hip Fracture Surgery on Adverse Outcomes. AO Trauma North America. Wasserstein D. (\$12,375.00, Jul 2014 - Jun 2015).

The Effect of Bracing on ACL and Meniscal Strain During Rehabilitation Exercises: A Dynamic Simulator Study. Ossur Canada Industry Grant. Tomescu S, Chandreshekar N, Chahal J, Marks P. (\$69,420.00, Jul 2014 - Jun 2015).

The Image Guided Therapy Cluster. FedDev Ontario, Invest in Commercialization and Partnerships. Whyne C, Hynynen K. (\$20,000,000.00 CAD, Apr 2014 - Dec 2018).

Treatment of Periprosthetic Distal Femur Fractures: A Randomized Controlled Trial of Locking Plate Osteosynthesis versus Retrograde Intramedullary Nailing. Orthopaedic Trauma Association (The) (OTA), Zimmer/OTA. Nauth A. (\$78,749.00 CAD, Jan 2015 - Dec 2016).

#### **Honours Received**

Jenkinson, Richard: Editor-in-Chief's Pick of the Papers, Journal of Radiotherapy & Oncology. Article: "Radiotherapy for the prophylaxis of heterotopic ossification: A systematic review and meta-analysis of published data". Nov 2014.

Kreder, Hans Juergen: Platinum Award - "Best Rich Media" for a physician/clinician focused site, eHealthcare Leadership Awards (USA), United States. AOTrauma STarT - Recognition of best websites of health care organizations. Nov 2014

Nam, Diane: Clinician Investigators Award in the Holland Musculoskeletal (HMSK) program, Toronto, Ontario, Canada. \$75,000.00 CAD. 2014 - 2017.

Nousiainen, Markku: Howard Rosen Table Instructor Award, AO North America, AO North America, Toronto, Ontario, Canada. Nov 2014.

Wasserstein, David: AAOS best international paper & best of AAOS (trauma), American Academy of Orthopaedic Surgeons. Two papers at American Acad of Orthopaedic Surgeons annual meeting 2014. 2014



## Division of Plastic and Reconstructive Surgery

Dr. O.M. Antonyshyn Professor

Dr. P. Binhammer Assistant Professor (Division Head)

Dr. R. Cartotto Associate Professor

Dr. M. Dibildox Lecturer

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, Jeschke MG. Nutrition and anabolic pharmacotherapies in the care of burn patients. Nutr Clin Pract. 2014 Oct;29(5):621-30.

Antonyshyn O, Mainprize J, Edwards G. Computer Planning for Craniofacial Surgery. In: Alex M. Greenberg (eds), Digital Technologies in Craniomaxillofacial Surgery. 2015 Feb 1. United States: Springer Verlag.

Austin RE, Merchant N, Shahrokhi S, Jeschke MG. A comparison of Biobrane and Cadaveric Allograft for Temporizing The Acutre Burn Wound: Cost and Procedural Time. Burns. 2015 Jun; 41(4): 749-53.

Austin RE, Shahrokhi S, Bolourani S, Jeschke MG. Peripherally inserted central venous catheter safety in burn care: a single-center retrospective cohort review. J Burn Care Res. 2015 Jan; 36(1): 111-7.

Austin RE, Stewart TL, Antonyshyn OM. Intracranial pseudoaneurysm associated with orbitozygomatic complex fracture. J Craniofac Surg. 2014 Jul; 25(4): 1410-1412.

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Bogdanovic E, Sadri AR, Catapano M, Vance JE, Jeschke MG. IDH1 regulates phospholipid metabolism in developing astrocytes. Neurosci Lett. 2014 Sep 11. pii: S0304-3940(14)00742-3. doi: 10.1016/j.neulet.2014.09.015.

Cartotto R, Bueno EM, Cicuto BJ, Kiwanuka HN, Pohamac B. Common Post-Burn Deformities and Their Correction. Surgical Clinics of North America. 2014.

Chaudhury PK, Jeschke MG, Monson JR; Evidence Based Reviews in Surgery Group. What is the diagnostic value of C-reactive protein for the prediction and the exclusion of postoperative infectious complication after colorectal surgery? Can J Surg. 2014 Dec;57(6):417-9.

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Chen P, Stanojcic M, Jeschke MG. Differences between murine and human sepsis. Surg Clin North Am. 2014 Dec; 94(6): 1135-49.

Chung KK, Lundy JB, Rhie RY, Pressman MA, Henderson E, Joe VC, Faucher LD, Cartotto R., Mlcak RP, Jeng JC. A Survey of Mechanical Ventilator Practices Across Burn Centers in North America. Journal of Burn Care and Research. 2015

D'Souza N, Mainprize J, Edwards G, Binhammer P, Antonyshyn O. Teaching facial fracture repair: A novel method of surgical skills training using three-dimensional biomodels. EW Buchel (eds), Plastic Surgery. 2015 Jun; 23(2): 81-86.

Haykal, Siba Antonyshyn, OM Gill, Harmeet. The temporals muscle flap: A useful adjunct in reconstruction of combined defects of the upper and lower eyelids. Plast Surg. 2015 Apr 2; 23: 1-5.

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Jeschke MG, Pinto R, Kraft R, Nathens AB, Finnerty CC, Gamelli RL, Gibran NS, Klein MB, Arnoldo BD, Tompkins RG, Herndon DN, Inflammation and the Host Response to Injury Collaborative Research Program. Morbidity and survival probability in burn patients in modern burn care. Crit Care Med. 2015 Apr; 43(4): 808-15.

Kraft R, Herndon DN, Finnerty CC, Cox RA, Song J, Jeschke MG. Predictive Value of IL-8 for Sepsis and Severe Infections After Burn Injury - A Clinical Study. Shock. 2014 Nov 8.

Merchant N, Boudana D, Willoughby L, Lin J, Rehou S, Shahrokhi S, Jeschke MG. Management of adult patients with buttock and perineal burns: The Ross Tilley Burn Centre experience. J Trauma Acute Care Surg. 2014 Oct. 2014 Oct;77(4):640-8.

Merchant N, Shahrokhi S, Lin JJ, Jeschke M. Management of Adult Patients with Buttock and Perineal Burns - Review of literature and the RTBC Experience. Trauma and Acute Care Surgery. 2014 Oct; 77(4): 640-648.



Podolsky D, Mainprize J, Edwards G, Antonyshyn O. Patient-specific orbital implants: development and implementation of technology for more accurate orbital reconstruction. MB Habal (eds), J Craniofac Surg. 2015 Jun.

Retrouvey H, Shahrokhi S. Pain and the Thermally Injured Patient - A Review of Current Therapies. Journal of burn care and research. 2015 Mar; 36(2): 315-323.

Ricketts S, Fialkov J, Chew H, Matic D, and Antonyshyn O. Facial Fractures. Plastic and Reconstructive Surgery. 2014.

Shahrokhi S, Malic C. Burn Care e-book: A trainee's Survival Guide to the Ross Tilley Burn Centre. 2014 Aug.

Simpson JS, Baltzer H, McMillan C, Boileau JF, Wright F, Lipa JE, Snell L, Holloway C. Multidisciplinary assessment for immediate breast reconstruction: a new approach. Surgical Practice. 2014; 18: 111-116.

Stergiou-Kita M, Grigorovich A, Gomez M. Development of an Inter-professional Clinical Practice Guideline for Vocational Evaluation Following Severe Burn. Burns. 2014 Sep 1; 40(6): 1149-1163.

Stergiou-Kita M, Mansfield E, Bayley M, Cassidy JD, Colantonio A, Gomez M, Jeschke M, Kirsh B, Kristman V, Moody J, Vartanian O. Returning to Work After Electrical Injuries: Workers' Perspectives and Advice to Others. J Burn Care Res. 2014 Aug; 5.

Sudenis T, Hall K, Cartotto R. Enteral Nutrition: What the Dietician Prescribes Isn't What the Burn Patient Gets! Journal of Burn Care and Research. 2015 Mar; 36: 297-305.

Sunderland IRP, Edwards G, Mainprize J, Antonyshyn O. A technique for intraoperative creation of patient-specific titanium mesh implants. Plastic Surgery. 2015 Jun; 23(2): 95-99.

Teshima TL, Patel V, Mainprize JG, Edwards G, Antonyshyn OM. A three-dimensional statistical average skull: Application of biometric morphing in generating missing anatomy. MB Habal (eds), J Craniofac Surg. 2015 May. United States.

Tseng CY, Hayakawa T, Buchel EW, Lipa JE. Stacked Flaps in Breast Reconstruction. In: Brian Belval and Brian Kearns (eds), Operative Microsurgery. 2015: 592-607. United States: McGraw-Hill Education.

Xiu F, Catapano M, Diao L, Stanojcic M, Jeschke MG. Prolonged ER Stressed-Hepatocytes Drives an Alternative Macrophage Polarization. Shock. 2015 May 4.

#### **Invited Visits**

Antonyshyn, Oleh M: Annual meeting of the Ukrainian Association of Craniomaxillofacial Surgeons, Kyiv, Kyïv, Ukraine, 16 May 2015. Keynote Speaker: 1) Panfacial fractures: Current management. 2) Applications of 3D imaging, computer modeling, 3D navigation, and rapid prototyping in craniomaxillofacial surgery.

Antonyshyn, Oleh M: AOCMF 2nd Clinic Priority Program Conference. Imaging and Planning Surgery. AOCMF, Prague, Czech Republic, 22 Sep 2014. Invited Lecturer: A 3D Statistical Skull Model: Development and application in the design and outcome analysis of craniofacial surgery.

Antonyshyn, Oleh M: Queen's University Ukrainian Student Association, Kingston, Ontario, Canada, 5 Feb 2015. Keynote Speaker: Surgical Mission to Kyiv.

Antonyshyn, Oleh M: Royal Australasian College of Surgeons, 84th Annual Scientific Congress, Perth, Western Australia, Australia, 5 May 2015. Invited Speaker: 1) The fracture biomodel. 2) Patient specific cranial vault reconstruction. 3) Secondary orbital deformities: Analysis and reconstruction. 4) Collapsed nasal deformity: Evaluation and treatment. 5) Post-trauma malocclusion: Classification and treatment. 6) Keynote Speaker: Panfacial fractures. Current approach.

Cartotto, Robert: 2nd Annual Canadian Burn Symposium, Toronto, Ontario, Canada, 24 May 2015. 1) Moderator: What Publications Impact Burn Care? 2) Invited Speaker: Use of Albumin in Burns. 3) Invited Speaker: Pro-Con Debate. Early vs Late Mobilization after Grafting.

Cartotto, Robert: American College of Surgeons, San Francisco, United States, 28 Oct 2014. Invited Speaker: Chemical Burns: Burn update for the General Surgeon.

Cartotto, Robert: Postgraduate Course A: Cutting Edge Issues in Burn Critical Care. American Burn Association Annual Meeting, Chicago, Illinois, United States, 21-24 Apr 2015. 1) Course Director: Classic Papers and Their Impact on Burn Care Practice. 2) Invited Speaker: Is There a Role for Metabolic Modulation Beyond Adequate Feeding? 3) Invited Speaker: Navigating Burn Resuscitation: Smooth Sailing and Rough Seas Course - Fundamentals of Burn Care: Caring for the Critically Ill Burn Patients.

Jeschke, Marc G: Burn and Shock Trauma Research Institute, Loyola University Chicago, Health Sciences Division, Chicago, Illinois, United States, Sep 2014. Invited Lecturer: Burn Induced Hyperglycemia- a journey over the last 2 decades with no end in sight Visiting Professorship.

Jeschke, Marc G: Canada, Oct 2014. The Nature of Things.

Jeschke, Marc G: Canadian Association of Wound Care, Toronto, Ontario, Canada, 1 Nov 2014. Distinguished Speaker: The future of burn care.

Jeschke, Marc G: Department of Surgery, Loyola University Chicago, Health Sciences Division, Chicago, Illinois, United States, Sep 2014. Distinguished Speaker: Burn Care- State of the Art and Novel Treatment Aspects Grand Rounds.

Lipa, Joan Elizabeth: American Society of Plastic Surgeons, San Diego, California, United States, 14 Oct 2014. Panelist: Challenges in Nipple Sparing Mastectomy.

Lipa, Joan Elizabeth: ASPS Annual Meeting, Chicago, Illinois, United States, 14 Oct 2014. Invited Speaker: Comprehensive Breast Reconstruction MOC-PS.

Lipa, Joan Elizabeth: Eighth Annual QMP Reconstructive Surgery Symposium, Chicago, Illinois, United States,



1-3 Nov 2014. 1) Faculty: Inframammary Fold Position in Implant-Based Surgery. 2) Faculty: Master Classes: Implant-Based Breast Reconstruction: Techniques, Adjunctive Procedures (ADM & Fat Grafting), Complications, Secondary Exchanges, & Salvage of the Failed Breast Implant Reconstruction. 3) Session Moderator: Pearls and Pitfalls Panel: Top Pitfalls and Mistakes that People Make in My Area of Focus and How to Fix Them - Solutions to Challenging Problems. 4) Faculty: Optimizing Donor Site Aesthetics Following DIEP Flap Harvest. 5) Faculty: Melanoma: Current Concepts on Treatment.

Shahrokhi, Shahriar: 2nd Annual Canadian Burn Symposium, Toronto, Ontario, Canada, 25 May 2015. Invited Lecturer: 1) Burn Care For First Responsers. 2) Necrotizing Soft Tissue Infections.

Shahrokhi, Shahriar: Liege University Hospital in Belgium, Liège, Belgium, 16 Jun 2015. Invited Lecturer: Current Concepts in Burn Wound Infections (Webinar).

#### **Research and Investigations**

A novel touch-based educational tool for intra-operative training in plastic surgery. Canadian Society of Plastic Surgeons (The). Snell L, Lipa J, Palter V. (\$9,970.00 CAD, Jul 2014 - Jun 2015).

Capacity Building within Ukraine's Ministry of Defense Medical System. Global Peace and Security Fund, Foreign Affairs, Trade and Development Canada. Waler K, Antonyshyn O, Hetmanchuk V. (\$1,200,000.00 CAD, Jun 2015 - Mar 2016).

Comparative impact resistance of titanium mesh, polymethyl methacrylate (PMMA), and polyether ether ketone (PEEK) in an in vitro model of custom patient specific cranioplasty. AO Foundation. Antonyshyn O, Sunderland I, Mainprize J, Edwards G, Whyne C. (\$53,900.00 CAD, Jul 2014 - Dec 2015).

Custom Craniofacial Implant System. FedDev ICP - Investing in Commercialization Partnerships. Antonyshyn O, Edwards G, Mainprize J. (\$120,000.00 CAD, Jul 2014 - Jun 2017).

ICIGT-OCE Industry Academic Collaborative Project. Antonyshyn O, Mainprize J, Edwards G. (\$100,000.00 CAD, Mar 2015 - Mar 2017).

Patient Education Resource Development: Breast Reconstruction using the Latissimus Dorsi (LD) Flap. Sunnybrook Patient and Family Education Committee. Lipa J, Snell L, McMillan C, Plauntz L. (\$1,000.00 CAD, Jul 2014 - Jun 2015).

Surgical Instrument and Implant Support, Kyiv Ukraine Humanitarian Surgical Mission, May 2015. Stryker Canada. Antonyshyn O. (\$160,000.00 CAD, May 2015 - May 2015).

Surgical Instrument and Implant Support, Kyiv Ukraine Humanitarian Surgical Mission, Nov 2014. Stryker Canada. Antonyshyn O. (\$132,000.00 CAD, Nov 2014 - Nov 2015).

Surviving Sepsis after Burns Campaign (SSABC). "Multi-center Trials in Burns to Improve Combat Casualties". US Army, Department of Defense / American Burn Association, US Army Department of Defense/American Burn Association. Cartotto R. (\$20,000.00 USD, 2014 - present).

## **Honours Received**

Antonyshyn, Oleh M: Marvin Tile Distinguished Service Award, Sunnybrook Health Sciences Centre, Department of Surgery, Toronto, Ontario, Canada. Jul 2014 - Jun 2015.

# Division of Urology

Dr. L.K. Carr Associate Professor
Dr. S. Herschorn Professor

Professor

Dr. R.T. Kodama Professor (Division Head)

Dr. R.K. Nam Professor

Dr. V. Venkateswaran Associate Professor

#### **Publications**

Dr. L. Klotz

Akbari MR, Wallis CJ, Toi A, Trachtenberg J, Sun P, Narod SA, Nam RK. The impact of a BRCA2 mutation on mortality from screen-detected prostate cancer. Br J Cancer. 2014 Sep 9; 111(6): 1238-40.

Amin MB, Lin DW, Gore JL, Srigley JR, Samaratunga H, Egevad L, Rubin M, Nacey J, Carter HB, Klotz L, Sandler H, Zietman AL, Holden S, Montironi R, Humphrey PA, Evans AJ, Epstein JI, Delahunt B, McKenney JK, Berney D, Wheeler TM, Chinnaiyan AM, True L, Knudsen B, Hammond ME. The critical role of the pathologist in determining eligibility for active surveillance as a management option in patients with prostate cancer: consensus statement with recommendations supported by the College of American Pathologists, International Society of Urological Pathology, Association of Directors of Anatomic and Surgical Pathology, the New Zealand Society of Pathologists, and the Prostate Cancer Foundation. Arch Pathol Lab Med. 2014 Oct; 138(10): 1387-405.

Bangma CH, Valdagni R, Carroll PR, van Poppel H, Klotz L, Hugosson J. Active Surveillance for Low-risk Prostate Cancer: Developments to Date. 2014 Nov 27.



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. 2014 Jul 24.

Da Rosa MR, Milot L, Sugar L, Vesprini D, Chung H, Loblaw A, Pond GR, Klotz L, Haider MA. A prospective comparison of MRI-US fused targeted biopsy versus systematic ultrasound-guided biopsy for detecting clinically significant prostate cancer in patients on active surveillance. J Magn Reson Imaging. 2015 Jan; 41(1): 220-5.

Delahunt B, Hammond E, Egevad L, Samaratunga H, Srigley JR, Humphrey PA, Rubin M, Epstein JI, Lin DW, Gore JL, Nacey JN, Klotz L, Sandler H, Zietman AL, Holden S, Montironi R, Evans AJ, McKenney JK, Berney D, Wheeler TM, Chinnaiyan AM, True L, Knudsen B, Amin MB. Active surveillance for prostate cancer: the role of the pathologist. Pathology. 2015 Jan; 47(1): 1-3.

Hopmans SN, Duivenvoorden WC, Werstuck GH, Klotz L, Pinthus JH. GnRH antagonist associates with less adiposity and reduced characteristics of metabolic syndrome and atherosclerosis compared with orchiectomy and GnRH agonist in a preclinical mouse model. Urol Oncol. 2014 Sep 18.

Klotz L, Drachenberg D, Singal R, Aprikian A, Fradet Y, Kebabdjian M, Zarenda M, Chin J. An open-label, phase 2 trial of bicalutamide dose escalation from 50 mg to 150 mg in men with CAB and castration resistance. A Canadian Urology Research Consortium Study. Prostate Cancer Prostatic Dis. 2014 Dec; 14(4): 320-4.

Klotz L, Miller K, Crawford ED, Shore N, Tombal B, Karup C, Malmberg A, Persson BE. Disease Control Outcomes from Analysis of Pooled Individual Patient Data from Five Comparative Randomised Clinical Trials of Degarelix Versus Luteinising Hormone-releasing Hormone Agonists. Eur Urol. 2014 Dec; 66(6): 1101-8.

Klotz L, Vesprini D, Sethukavalan P, Jethava V, Zhang L, Jain S, Yamamoto T, Mamedov A, Loblaw A. Long-Term Follow-Up of a Large Active Surveillance Cohort of Patients With Prostate Cancer. J Clin Oncol. 2014 Dec 15.

Klotz L. Active surveillance for prostate cancer: an overview. In: Dicker A, Kelly W, Zaorsky N, Trabulsi E, (eds), Prostate Cancer: A mutlidsciplinary approach to diagnosis and management. 2015 Jan 5. New York, United States: Demos Medical Publishing.

Klotz L. Testosterone therapy and prostate cancer-safety concerns are well founded. Nat Rev Urol. 2015 Jan 7; 12(1): 48-54.

Mohamadi RM, Besant JD, Mepham A, Green B, Mahmoudian L, Gibbs T, Ivanov I, Malvea A, Stojcic J, Allan AL, Lowes LE, Sargent EH, Nam RK, Kelley SO. Nanoparticle-mediated binning and profiling of heterogeneous circulating tumor cell subpopulations. Angew Chem Int Ed Engl. 2015 Jan 2; 54(1): 139-43.

Montironi R, Hammond EH, Lin DW, Gore JL, Srigley JR, Samaratunga H, Egevad L, Rubin MA, Nacey J, Klotz L, Sandler H, Zietman AL, Holden S, Humphrey PA, Evans AJ, Delahunt B, McKenney JK, Berney D, Wheeler TM, Chinnaiyan A, True L, Knudsen B, Epstein JI, Amin MB. Consensus statement with recommendations on active surveillance inclusion criteria and definition of progression in men with localized prostate cancer: the critical role of the pathologist. Virchows Arch. 2014 Dec; 465(6): 623-8.

Mora BC, Fleshner NE, Klotz LH, Venkateswaran V. The Effects of Serum from Prostate Cancer Patients with Elevated Body Mass Index on Prostate Cancer Cells In Vitro. Lipid Insights. 2015 Feb.

Sadeghi-Naini A, Sofroni E, Papanicolau N, Falou O, Sugar L, Morton G, Yaffe MJ, Nam R, Sadeghian A, Kolios MC, Chung HT, Czarnota GJ. Quantitative ultrasound spectroscopic imaging for characterization of disease extent in prostate cancer patients. Transl Oncol. 2015 Feb 1; 8(1): 25-34.

Sasaki H, Klotz LH, Sugar LM, Kiss A, Venkateswaran V. A combination of desmopressin (DDAVP) and docetaxel inhibit prostate cancer proliferation and invasion mediated by urokinase-type plasminogen activator (uPA). Journal of Urology. 2015 Jan.

Schütz E, Akbari MR, Beck J, Urnovitz H, Zhang WW, Bornemann-Kolatzki K, Mitchell WM, Nam RK, Narod SA. Chromosomal instability in cell-free DNA is a serum biomarker for prostate cancer. Clin Chem. 2015 Jan 1; 61(1): 239-48.

Smith MR, Coleman RE, Klotz L, Pittman K, Milecki P, Ng S, Chi KN, Balakumaran A, Wei R, Wang H, Braun A, Fizazi K. Denosumab for the Prevention of Skeletal Complications in Metastatic Castration-Resistant Prostate Cancer: Comparison of Skeletal-Related Events and Symptomatic Skeletal Events. Ann Oncol. 2014 Nov 25.

Toren, P, and Venkateswaran, V. Periprostatic adipose tissue and prostate cancer progression: new insights into the tumour microenvironment - Review. Clinical Genitourinary Cancer. 2014; 12(1): 21-26.

Venier A, Colquhoun A, Sasaki H, Kiss A, Sugar M, Adomat H, Klotz LH, Fleshner NE, and Venkateswaran, V. Capsaicin: A novel radio-sensitizing agent for prostate cancer. The Prostate. 2014; 75(2): 113-25.

Venier N., Yamamoto T., Fleshner NE., Sugar LM., Klotz LH, Venkateswaran V. Capsaicin may reduce the metastatic burden in the transgenic adenocarcioma of the Mouse Prostate (TRAMP) model. The Prostate. 2015.

Venier NA, Colquhoun AJ, Sasaki H, Kiss A, Sugar L, Adomat H, Fleshner NE, Klotz LH, Venkateswaran V. Capsaicin: A novel radio-sensitizing agent for prostate cancer. Prostate. 2015 Feb; 75(2): 113-25.

Wallis CJ, Cheung P, Herschorn S, Saskin R, Su J, Klotz LH, Kulkarni GS, Lee Y, Kodama RT, Narod SA, Nam RK. Complications following surgery with or without radiotherapy or radiotherapy alone for prostate cancer. Br J Cancer. 2015 Mar 17; 112: 977-82.

Wallis CJ, Herschorn S, Liu Y, Carr LK, Kodama RT, Klotz LH, Saskin R, Nam RK. Practice patterns of post-radical prostatectomy incontinence surgery in Ontario. Can Urol Assoc J. 2014 Sep; 8(9-10): 670-674.

Wallis CJ, Herschorn S, Saskin R, Su J, Klotz LH, Chang M, Kulkarni GS, Lee Y, Kodama RT, Narod SA, Nam RK. Complications After Radical Prostatectomy or Radiotherapy for Prostate Cancer: Results of a Population-based, Propensity Score-matched Analysis. Urology. 2015 Mar 1; 85(3): 621-8.



Zlotta AR, Egawa S, Pushkar D, Govorov A, Kimura T, Kido M, Takahashi H, Kuk C, Kovylina M, Aldaoud N, Fleshner N, Finelli A, Klotz L, Lockwood G, Sykes J, Kwast Tv. Prevalence of inflammation and benign prostatic hyperplasia on autopsy in Asian and Caucasian men. 2014 Oct; 66(4): 619-22.

#### **Invited Visits**

Klotz, Laurence: Arab Urological Association, Louisiana, United States, 16 May 2015. Invited Speaker: Active surveillance, status and limitations.

Klotz, Laurence: Brazilian Urologic Oncology Symposium, Sao Paolo, São Paulo, Brazil, 10 Apr 2015. Keynote Speaker: 'The future of urologic oncology' and other topics.

Klotz, Laurence: Eurasian Urological Society, New Orleans, Louisiana, United States, 16 May 2015. Invited Speaker: Management of Castrate Resistant Prostate Cancer.

Klotz, Laurence: French Urological Association, New Orleans, Louisiana, United States, 17 May 2015. Invited Speaker: Management of low risk prostate cancer.

Klotz, Laurence: Hong Kong Urological Society, Hong Kong, Hong Kong, 6 Nov 2014. Distinguished Speaker: Cardiovascular Morbidity with LHRH agonists vs antagonists.

Klotz, Laurence: Michigan Urological Surgery Improvement Collaborative (MUSIC), Detroit, Michigan, United States, 2 May 2015. Distinguished Speaker: Perspectives on Active Surveillance Keynote speaker at Active Surveillance 'DEL-PHI' conference.

Klotz, Laurence: SIU, Glasgow, United Kingdom, 15 Oct 2014. Chair: Master Class on Active Surveillance.

Klotz, Laurence: Ukraine Society of Urology, Kiev, Ukraine, 27 Apr 2015. Keynote Speaker Prostate cancer prevention and active surveillance.

Klotz, Laurence: University of Hong Kong Dept of Surgery, Hong Kong, 10 Nov 2014. Invited Lecturer: Active Surveillance in Asian populations.

Nam, Robert K: Dalhousie University, Halifax, Nova Scotia, Canada, 10 Oct 2014. Visiting Professor: Prostate cancer treatment complications.

Nam, Robert K: Friends of Israel Urology Symposium, Tel-Aviv, Israel, 3 Jul 2014. Invited Speaker: Radical Prostatectomy Surgical Approach.

Nam, Robert K: Laval University, Quebec City, Quebec, Canada, 5 Feb 2015. Visiting Professor: Prostate Cancer treatment complications.

Venkateswaran, Vasundara: Shandong University School of Medicine, Jinan, Shandong, China, Oct 2014. Visiting Professor: Impact of diet, dietary agents and exercise in prostate cancer progression.

Venkateswaran, Vasundara: Shandong University School of Medicine, Jinan, Shandong, China, Oct 2014. Visiting Professor: Summer Undergraduate Research Program, Graduate Program and Web courses.

#### **Research and Investigations**

Expression profiling of metabolic genes in Gleason pattern 3 and Gleason pattern 4 prostate cancer glands. *PRON-TO-PCC*, *Post-Doctoral Training*. *Venkateswaran V*, *Park P*. (\$50,000.00 CAD, Sep 2014 - Aug 2015).

Metformin: A radio- and chemo- sensitizer in prostate cancer. Canadian Institutes of Health Research (CIHR). Venkateswaran V, Klotz L, Bristow R, Fleshner N, Sugar L, Kiss A. (\$50,000.00 CAD, May 2014 - Apr 2015).

The prostate cancer program project in rapid development of novel diagnostic markers for early prostate cancer (PRONTO). Prostate Cancer Canada, Movember Team Grant. Bartlett J, Berman D, Buyttan R, Earle C, Loblaw A, Bauman G, Butros P, Finelli A, Lapoint J, Park P, Rakovitch E, Saskin R, Thomson, van der Kwast T, Venkateswaran V. (\$499,540.00 CAD, Jul 2014 - Jul 2019).

The role of Radium 223 in the management of men with high risk PSA recurrent non-metastatic prostate cancer initiating intermittent androgen deprivation therapy: An investigator sponsored study. *Bayer Pharmaceuticals. Klotz L, Multicentre national trial (15 collaborating sites).* (\$1,800,000.00, Dec 2014 - Dec 2018).

The xViva CTC capture chip: A device for tumor cell sorting and classification. CIHR. Nam RK, Kelley SO. (\$160,000.00 2014-2015)

#### **Honours Received**

Klotz, Laurence: SUO Medal, Society of Urological Oncology (SUO). May 2014 - Jul 2014.

Klotz, Laurence: Fellow, Canadian Academy of Health Sciences. May 2015

Klotz, Laurence: Order of Canada, Government of Canada (Governor General). Dec 2014 - Jun 2015.

Klotz, Laurence: Harold Warwick Prize, Canadian Cancer Society. Dec 2014 - Dec 2015.

Klotz, Laurence: Lister Prize, Department of Surgery, University of Toronto. May 2014 - Jul 2014.



# Division of Vascular Surgery

Dr. A. Dueck Assistant Professor (Division Head)

Dr. D.S. Kucey
Dr. R. Maggisano
Dr. G. Papia
Assistant Professor
Associate Professor
Assistant Professor

#### **Publications**

Papia, G. Multiple Organ. In: J Ali (eds), Surgical Critical Care Handbook 1st Edition. 2014. Chapter 26.

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 May 28.

#### **Invited Visits**

Dueck, Andrew: Canadian Association for Wound Care Annual Conference, Toronto, Ontario, Canada, 31 Oct – 1 Nov 2014. Invited Speaker: 1) Limb Saving Centres in Ontario. 2) Surgical Options in the Treatment of Venous Ulcers.

Dueck, Andrew: Tremblant Vascular Group, Mont Tremblant, Quebec, Canada, 14 Feb 2015. Invited Speaker: When and Why to use covered stents.

Papia, Giuseppe: Canadian Association of Wound Care (Collaboration with the Memorial University of Newfoundland on a Prevention and Management of Diabetic Foot Complications Symposium), Newfoundland, Newfoundland and Labrador, Canada, 20 Sep 2014. Invited Speaker: Key Expert Session.

Papia, Giuseppe: Canadian Association of Wound Care, Toronto, Ontario, Canada, 31 Oct 2014. Invited Speaker: The 20th Annual Conference of the Canadian Association of Wound Care (CAWC) in collaboration with the Canadian Association for Enterostomal Therapy (CAET).

Papia, Giuseppe: SFA Workshop, Ontario, Canada, 2014. Co-Chair and Organizer: Approaches and Options.

#### **Honours Received**

Dueck, Andrew: Undergraduate Award for Excellence in Teaching, Sunnybrook Health Sciences Centre, Vascular Surgery, Dept of Surgery, Faculty of Medicine, Toronto, Ontario, Canada. May 2014 - Jun 2015.

## Neurosurgery Softball Team in Central Park NYC





# Toronto East General Hospital Carmine Simone, Surgeon-in-Chief

Our vision is simple – we want Toronto East General Hospital (TEGH) 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 TEGH 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 11,644 operative cases in Fiscal Year (FY) 2013/14 (compared to 11,319 in FY 2012/13). We are on-track this FY to complete over 11,700 cases. The Department of Surgery accounts for the largest proportion of cases within the 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
- 5. Innovation



Quality integrated surgical care: Dr. Mary-Anne Aarts continues as site lead for BPIGS that includes 8 other hospitals in the GTA (15 hospitals in Ontario), which encompasses multiple safety and quality initiatives standardized across the University of Toronto hospitals. These include initiatives targeted towards reducing antibiotic usage prior to surgery, bowel preparation prior to colorectal surgery and normothermia during abdominal surgery. Mary-Anne has been instrumental in launching the Enhanced Recovery after Surgery (ERAS) initiative that is a multi-disciplinary initiative to improve recovery and reduce hospital stay and complications following colorectal surgery at TEGH and throughout Toronto. This is supported by a grant from Colon Cancer Canada. This initiative has been successful at TEGH mainly due to the tremendous collaboration between the Departments of Surgery, Anesthesia and Nursing.

Our Division of Orthopedic Surgery sets the standard for fiscally responsible quality patient-focused care. Our surgeons, anesthesiologists and nursing partners have been successful in dropping the number of patients waiting for surgery following hip fracture to one of the lowest levels in the city.

We reviewed transitions to external rehab (Bridgepoint & Providence) For the Fractured hip patient at TEGH

Authors January investors of Manager problems Singapy, TEGIs Chammad Lep. Scorible Diseased TSA Brans National Conference of the Providence of Manager problems of Manag

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. The TEGH multidisciplinary model of care and transition plan for our patients now serves as a template for other organizations to achieve the same level of excellence as TEGH.

4

IDEAS presentation of TEGH multidisciplinary transition plan for our post-operative hip fracture patients.

Dr. Hany Sawires continues to lead the development and growth of our first-ever multidisciplinary Breast Diagnostic Clinic. The clinic focuses on breast cancer diagnosis and treatment but it is the first clinic in Toronto that welcomes patients with any and all breast health concerns.

The Department of Surgery's thoracic surgery team (Dr. R. Zeldin) and the Division of Respirology



(Dr. R. Skrastins) will launch Toronto's first multidisciplinary Chest Centre which will serve as flagship "one-stop shop" for patients with any thoracic or respiratory health problem.

Dr. J. Cyriac and Dr. M.A. Aarts lead our *Bariatric Surgery Program* which is now reaching out to primary care to transition post operative follow up into the community.

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 TEGH, for example:

- Vascular surgery for our Vascular Access/Nephrology Clinic in the Dialysis Clinic;
- 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. TEGH 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 Respirology, and our partnerships with Odette Cancer Centre, North York General Hospital, Royal Victoria Hospital and the University of Toronto Division of Thoracic Surgery, the TEGH Thoracic Program is recognized as a shining example of collaborative, multidisciplinary, inter-hospital care providing exceptional service to the largest geographic area in the province. With the loss of thoracic surgery in the Scarborough region, we are poised for further expansion and growth and exploring a collaboration and partnership with the R.S. McLaughlin Durham Regional Cancer Centre in Oshawa.

Dr. Paul Bernick and Dr. W. Appell have led the launch of our multi-disciplinary Colon Diagnostic Program.

Teaching: The TEGH 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 for 2013 was 17.19 (University mean = 16.90). We have not yet received our 2014 TES. We do know that 9 of our surgeons 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. Dr. P. Bernick was recognized by our Department of Family Medicine for his teaching and was highlighted in that Department's Annual Report.

Dr. Robert Zeldin has developed a core PGY3 general surgery rotation for University of Toronto learners as a pilot project in 2012-2013. It has been extremely popular and has now been extended indefinitely. TEGH 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 in 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.

We have been able to offer a very unique training experience with our robotic simulator in OR 7, which can be used by residents at any time.

Our unique robotic surgery simulator in OR 7, which utilizes no consumables, is seen being used by one of our Thoracic Surgery learners while a total thyroidectomy is performed without interruption.



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.

Innovation: Dr. R. Singal live-tweeted a robotic-assisted prostatectomy and continues to lead our Department in social media influence, which has heightened our profile. He has successfully co-ordinated case reviews, journal club discussions and topic reviews on Twitter.



We have re-located the endoscopy suite, bronchoscopy suite and recovery rooms, cystoscopy and minor surgery to the 6th floor 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 mak-



ing a "one-stop shop" for patients in our community. Our efforts were recognized by the MOHLTC as "innovative and ground breaking".

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.

I am very grateful to have the opportunity to outline the accomplishments of our Department and I am looking forward to working with all of our University colleagues and partners in the future.

## Division of General Surgery

Dr. M.A. Aarts Assistant Professor

Dr. P.E. Bernick Assistant Professor (Division Head)

Dr. J. Cyriac Lecturer
Dr. J. Dickie Lecturer

Dr. T. Gilas Assistant Professor

Dr. N. Safieddine Lecturer
Dr. H. Sawires Lecturer
Dr. C. Simone Lecturer

Dr. R. Zeldin Assistant Professor

# Division of Plastic and Reconstructive Surgery

Dr. B. Beber Lecturer

Dr. L. Dvali Assistant Professor (Division Head)

Dr. A. Kesarwani Lecturer

Dr. L.J. Tate Assistant Professor

## Division of Orthopaedics

Dr. M. Catre, Jr. Lecturer

Dr. J.W. Kraemer Assistant Professor Dr. G. Maistrelli Associate Professor

Dr. F. Mastrogiacomo Lectures

Dr. P. Weiler Assistant Professor (Division Head)

Dr. P. Wong Assistant Professor

# Division of Urology

Dr. R. Groll Lecturer

Dr. R.K. Singal Assistant Professor

Dr. P. Vlaovic Lecturer

### Dinner with Michael Dan





# University Health Network Shaf Kehavjee, Surgeon-in-Chief

## **Division Heads:**

Vivek Rao Cardiac Surgery Allan Okrainec MD General Surgery Michael Tymianski MD Neurosurgery Nizar Mahomed MD Orthopedic Surgery Stefan Hofer MD Plastic Surgery Tom Waddell MD Thoracic Surgery Neil Fleshner MD Urology Thomas Lindsay MD Vascular Surgery

# **Division Of Cardiac Surgery**

M. Badiwala, MD
R.J. Cusimano, MD
V. Rao, MD
V. Rao, MD
V. Stansfield MD
C. Feindel, MD
M. Ouzounian, MD
T. Yau, MD
T. Yau, MD

The Division of Cardiovascular Surgery at the Peter Munk Cardiac Centre continues to enjoy strong growth in its clinical and academic programs. During the 2014-15 academic year, the division recruited two new surgeons: Dr. William Stansfield is a graduate of the University of North Carolina surgical training program and will augment our advanced heart failure team. He is a Surgical-Scientist with a research interest in myocardial remodeling. Dr. Mitesh Badiwala is a graduate of our training program and completed an advanced fellowship in valvular repair at Northwestern University in Chicago. He has assumed the surgical leadership of our cardiac transplant program and his research interests involve the development of an ex-vivo cardiac perfusion system for cardiac transplant. The adult congenital surgeons, under the direction of Dr. Edward Hickey, have successfully launched an innovative program to provide long-term mechanical circulatory support to patients with complex congenital heart disease.

The Division's basic science efforts are strongly represented by Drs. Ren-Ke Li, Richard Weisel and Terry Yau in the field of regenerative medicine. We have recently recruited Dr. Cedric Manlhiot to spearhead our clinical epidemiology unit and leverage our IT infrastructure within the institution. Dr. Ouzounian has solidified a multidisciplinary team to provide surgical management for thoracic aortic disease. Several members of the Division continue to serve in key administrative roles including the Provincial Chair of Cardiac Surgery for the Cardiovascular Care Network (Dr. Chris Feindel), director of the Trillium Gift of Life Network (Dr. Vivek Rao) and Dr. Hugh Scully serves as a rare Canadian representative on the Board of Governors for the American College of Surgeons. Members of the Division continue to be frequent invited lecturers around the world, further enhancing our reputation as an innovative and world-class institution for the treatment of acquired and congenital heart disease.



# **Division Of General Surgery**

M. Cattral, MD	I. McGilvray, MD
T. Cil, MD	C. Moulton, MD
S. Cleary, MD	C. O'Brien, MD
K. Devon, MD	A. Okrainec, MD
J. Escallon, MD	T. Penner, MD
S. Gallinger, MD	F. Quereshy, MD
A. Ghanekar, MD	M. Reedijk, MD
D. Grant, MD	M. Selzner, MD
P. Greig, MD	E. Shlomovitz, MD
T. Jackson MD	B. Taylor, MD
W. Leong, MD	D. Urbach, MD
D. McCready, MD	A. Wei, MD

The Division of General Surgery proudly acknowledges another successful year, with several faculty awards and accomplishments in clinical, teaching, and research. A number of faculty members were recipients of prestigious grants and awards. Mark Cattral received a Canada Foundation for Innovation (CFI) grant to establish a Centre for Islet Research and Therapeutics. Anand Ghanekar was awarded the Cancer Research Society Grant for his project: Phenotypic and Transcriptional Characterization of Tumor-Initiating Cells in Primary Human Hepatocellular Carcinoma. Two Faculty members were award AEF Innovation Fund Grants: Tulin Cil: An Online Enhanced Education Tool for Young Women Newly Diagnosed with Breast Cancer and Timothy Jackson: Development and Implementation of a Surgeon Cost Report Card: Behavioural Economics Applied to Surgical Cost Containment. Catherine O'Brien's work on Targeting colorectal cancer-initiating cells by Activation of RIG-1/MDA5 Pathway was awarded a grant by the The Princess Margaret Cancer Centre Foundation.

The Frank Mills Award for Excellence in Teaching by a Faculty Member was awarded to Catherine O'Brien, who also received the Early Researcher Award (ERAs) from the Ontario Ministry of Economic Development and Innovation. Timothy Jackson was awarded the David Fear Fellowship. David Urbach received the CIHR Article of the Year Award for his publication in the New England Journal of Medicine titled "Introduction of surgical safety checklists in Ontario, Canada".

Steven Gallinger was honoured with The Joseph and Wolf Lebovic Chair in HPB Surgery. Markus Selzner was promoted to Associate Professor. The Division of General Surgery was well represented outside the University Health Network / University of Toronto as well. Timothy Jackson became the Provincial Lead for the Ontario Surgical Quality Collaborative. Alice Wei was appointed Lead, Quality and Knowledge Transfer, Surgical Oncolo-



gy Program, Cancer Care Ontario. Carol-anne Moulton was the Johnson and Johnson Lecturer at the Royal College of Surgeons Ireland, Charter Day, where she lectured on Peeking Behind the Curtain: Surgical Judgement Beyond Cognition...In the clinical arena, Sean Cleary, Alice Wei and Fayez Quereshy performed the first combined robotic colon/ liver resection at UHN.

General Surgery was very pleased to have Mr. Guy Maddern, from the University of Adelaide in South Australia deliver the Division of General Surgery and Canadian Association of General Surgeons Langer Lecturer in September, 2014. Dr. Gerald Fried of McGill University delivered an outstanding presentation in his role as the Peter Crossgrove Lecturer in June 2015.

# **Division Of Neurosurgery**

M. Bernstein, MD	E. Massicotte, MD
M. Fehlings, MD	I. Radovanovic, MD
F. Gentili, MD	M. Shamji, MD
M. Hodaie, MD	C. Tator, MD
S. Kalia, MD	M. Tymianski, MD
P. Kongkham, MD	T. Valiante, MD
A. Lozano, MD	G. Zadeh, MD

Dr. Gelareh Zadeh was promoted to Associate Professor. Recruitments for this year included Dr. Vitor Pereira (JDMI) was cross-appointed to the Division of Neurosurgery. The Division of Neurosurgery completed its fundraising for the The Crean Hotson Chair in Skull Base Surgery and for the Halpern Family Chair in Neurosurgical Stroke Research. Dr. Fred Gentili was honoured at the Pioneers in Excellence Tribute Event held at the Liberty Grand in honour of his contributions to the advancement of skull base surgery. Dr Zadeh was appointed as the Wilkins Chair in Brain Tumor Research and elected as the Secretary-Treasurer of the Society of Neuro-oncology. Dr. Zadeh She received the Young Investigator Award, Tumor Section, AANS, and the Alan Hudson Teaching Award. Mohammed F. Shamji received awards from the Canadian Spine Society, American Association of Neurological Surgeons, and the Congress of Neurological Surgeons for various clinical and basic research projects related to spine-mediate neuropathic pain. Dr. Fehlings was appointed as a Fellow of the Royal Society of Canada and a Fellow of the Canadian Academy of Health Sciences, Michael Fehlings launched two randomized controlled trials examining a sodium-glutamate blocker (riluzole) in cervical spondylotic myelopathy (CSM-Protect study) and spinal cord injury (RISCIS). Michael Tymianski launched the FRONTIER trial, a phase 3 trial of the neuroprotectant NA-1 in patients with acute stroke. Andres Lozano was awarded a 2-year, \$1,000,000 grant from the Weston Brain Institute for the project "Deep Brain Stimulation of the Fornix in Alzheimer's Disease: Investigations into clinical and imaging biomarkers and dose optimization". Michael Tymianski was awarded a 4 year, \$5.74M USD grant from NINDS for the project: "developing the next generation PSD95 inhibitor". Michael Tymianski and co-investigators were awarded a 3 year, \$6.6M CDN grant from Brain Canada for the project: the FRONTIER trial. Dr. Mojgan Hodaie, together with residents David Cadotte, George Ibrahim, Alireza Mansouri and Anick Nater and medical students Elie Sader and Philip Yee launched the first fully online neurosurgery curriculum for the neurosurgery residents at the Preah Kossamak Hospital in Phnom Penh, Cambodia. Dr. Mark Bernstein has started training in Palliative Care.

# **Division Of Orthopedic Surgery**

J. Chahal, MD

R. Davey, MD

D. Ogilvie-Harris, MD

R. Gandhi, MD

R. Rampersaud, MD

J. Lau, MD

S. Lewis, MD

C. Veillette, MD

N. Mahomed, MD

W. Marshall, MD

R. Rampersaud, MD

K. Syed, MD

C. Veillette, MD

A. Veljkovic, MD

The Orthopaedic Division has had an exceptionally productive year with several key milestones being achieved. Under the leadership of Dr. Raj Rampersaud the Inter professional Spine Assessment Centre (ISAEC) project successfully showed improvement in access and outcomes for the management of patients with low back pain while at the same time saving money. The MOHLTC has now decided to roll out the ISAEC model across the province as their strategy for the management of low back pain. Dr. Rampersaud has also been asked to co-chair the Provincial QBP panel for low back pain. Dr. Jas Chahal in collaboration with the other members of the Division is leading the first North American clinical trail of autologous Mesenchymal Stem Cell's for the treatment of knee osteoarthritis. Dr. Rajiv Gandhi was selected to be the 2015 American British Canadian (ABC) travelling fellow. This is the most prestigious Orthopaedic travelling fellowship in the world for mid-career academic Orthopaedic surgeons. Dr. Christian Veillette established a big data analytics program in collaboration with Dr. Igor Jurissica leveraging the successful development of the DADOS IT platform that was completed late last year. Overall, the division published over 100 peer reviewed publication 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 \$40 million.

# **Division Of Plastic Surgery**

J. Ahmad, MD	S. McCabe, MD	
D. Anastakis, MD	A. O'Neill, MD	
P. Bray, MD	H. Von Schroeder, MD	
B. Graham, MD	T. Zhong, MD	
S. Hofer, MD		

The breast program at UHN is planning to become a National Accreditation Program for Breast Centers (NAPBC)-accredited program of excellence in quality care, patient satisfaction, staff support, and clinical outcomes. Agnes Wisniewski (UHN Breast Reconstruction CNC) and Dr. Toni Zhong attended the Workshop in Denver in April 2015.

Dr. Brent Graham of the TWH – Hand Program has been appointed as the Editor in Chief of The Journal of Hand Surgery and Dr. Steve McCabe was appointed a Visiting Plastic Surgery Professor by the American Society for Surgery of the Hand. The Upper Extremity Update and UHN's Manktelow Day – Hand Therapy Program have come together this year October 16-17, 2015 to provide a centralized forum for orthopaedic surgeons, plastic surgeons, nurses & occupational/physical therapists to collaborate and learn. Dr. Stefan Hofer co-organized the Wharton Research Day at the Princess Margaret Hospital Cancer Centre. Dr. Anne O'Neill and Dr. Toni Zhong were invited speakers at several Breast Cancer Awareness events throughout the GTA.

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 for the Development of a National Quality Improvement Program in Postmastectomy Breast Recon-



struction to Optimize the Patient-Centered Experience

Dr. Toni Zhong was promoted as an Associate Professor in the Department of Surgery at the University of Toronto; Associate Professor Faculty Member of the Institute for IHPME at the University of Toronto and Adjunct Scientist to ICES Central Region, Sunnybrook Health Sciences Centre.

The Microsurgical Fellowship Program and the Breast Reconstruction Surgery Fellowship Program in 2014 – 15 was successfully completed by 5 fellows. The Hand Fellowship Program was successfully completed by 3 fellows.

During the 2014 – 15 academic year, division members have published [23] peer-reviewed papers, presented [26] scientific papers and participated in a total of [32] invited lectures at International Meetings.

# **Division Of Thoracic Surgery**

M. Cypel, MD
G. Darling, MD
T. Waddell, MD
M. de Perrot, MD
S. Keshavjee, MD

A. Pierre, MD
T. Waddell, MD
K. Yasufuku, MD

Dr. Marc De Perrot has led the development of the Surgical Pulmonary Hypertension over the last decade. He has built many aspects of this program, including recruitment of surgical fellows to train specifically for this procedure, development of an international reputation attracting observers from all over the world, a complementary research program in the lab with both basic and translational aspects, and important collaborations with pulmonary medicine and interventional radiology. This program received additional funding from the Ministry of Health, in recognition of its important position as a national resource. This program also attracted a large 5 year commitment for financial support from Bayer Inc, headquartered in Germany to continue to build this as a leading global program in Pulmonary Thromboendarterectomy.

The Division had a stellar year in regards to recognition of the quality of its teachers. Dr. Kazuhiro Yasufuku won an Individual Teaching Award from the Wightman-Berris Academy. Dr. Andrew Pierre won the Department of Surgery Tovee Award, also recognizing many years of commitment to teaching of surgery. Dr. Cypel won the George Armstrong Peters Prize for his success as a surgeon-scientist in the early phase of his career and also was awarded a Roscoe Reid Graham Scholarship to help fund that research. Dr. Gail Darling was appointed to a very important role within Cancer Care Ontario as the Clinical Liaison Lead for lung cancer, advising not only on surgery but all aspects of lung cancer care, including screening, radiation, and systemic treatments.

Dr. Keshavjee had an incredible year with numerous organizations recognizing his contributions to Thoracic Surgery. He was appointed to the Council for the American Association for Thoracic Surgery (for the second time). He was recognized with honorary degrees from both Queen's and Ryerson Universities. Most importantly, he was appointed as an Officer of the Order of Canada.

Teaching awards were awarded to Dr. Andrew Pierre (GAIL E. DARLING AWARD FOR EXCELLENCE IN UNDERGRADUATE TEACHING) and Dr. Marcelo Cypel (ROBERT J. GINSBERG AWARD FOR EXCELLENCE IN POSTGRADUATE TEACHING). Dr. Jonathan Yeung won the F. GRIFFITH PEARSON AWARD FOR BEST RESIDENT/FELLOW TEACHER.

Another highly successful Toronto Thoracic Surgery Refresher Course was held in June 2015 and included the following Visiting Faculty: Dr. Milton Saute from Israel, Dr. Rob McKenna from Los Angeles, and Dr. Sean Grondin from Calgary.

The academic year concluded with Pearson Day, an annual

celebration of clinical and laboratory research by trainees in our Division. The Pearson Day Visiting Professor was Dr. Yolonda Colson from Brigham and Women's Hospital in Boston. Dr. Biniam Kidane won the Award for Best Clinical Research paper and Dr. Luis Borja won the Best Basic Science Research Award.

# **Division Of Urology**

D. Elterman, MD
A. Finelli, MD
G. Kulkarni, MD
N. Fleshner, MD
S. Radomski, MD
M. Hassouna, MD
M. Robinette, MD
R. Hamilton, MD
J. Trachtenberg, MD

The Division of Urology has had a productive academic year. We currently have 11 geographic full-time faculty and 1 full-time Psychologist/Researcher. 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. Dr. Dean Elterman was appointed to Assistant Professor. The Division of Urology had a solid year in terms of peer-reviewed grant capture. The following faculty served as Principle Investigators or Co-Principal Investigators on peer-reviewed grants totaling over 3.5 million dollars. Dr. Girish Kulkarni successfully completed his Continuing Appointment Review. Dr. Neil Fleshner continues as Chair of the Canadian Uro-Oncology Group and was re-appointed as the Love Chair at PMH. Dr. Girish Kulkarni was awarded the Langer Prize at Gallie Day. We had two Visiting Professors for this year; Dr Brian Lane was our Menkes' lecturer and Dr Peter Albertsen was our Robson Professor.

Dr. Neil Fleshner continued as site chief at the UHN. He 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, NIH, and GSK. 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. 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 is from CIHR, Canadian Cancer Society research Institute and Pfizer. He also served as Chair of the 6th Annual Uro-Oncology Dialogue meeting in Niagara-on-the-Lake. Dr Girish Kulkarni continued his excellent research as a Junior Investigator/Surgeon Scientist securing peer-reviewed grants from Canadian Urologic Association and CIHR as well as 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 Princess Margaret funds. He continues his work on statins, SNP's and prostate cancer. Dr. Magdy Hassouna continued his basic and clinical work in neuro-urology and neuromodulation. 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 commenced as a 3rd Urologist at TWH as a Surgeon-Investigator. His interests include men's health, incontinence and reconstructive surgery.



# **Division Of Vascular Surgery**

J. Byrne, MD
W. Johnston, MD
L. Tse, MD
T. Lindsay, MD
G. Oreopoulos, MD
G. Roche-Nagle, MD

The Division was active in recruitment over the past year, hiring Dr Thomas Forbes who has assumed the role of University Chair of Vascular Surgery succeeding Dr Lindsay's eleven year term. Dr John Byrne, a surgeon scientist, was recruited, who will be working with Dr Clint Robbins, on mechanisms of aortic aneurysm wall expansion. The Division also supported the hiring of Dr Yassin Abdulrehman to Thunder Bay Regional Health Science Center (TBHSC) to renew the vascular surgical program in Thunder Bay. Drs Rubin and Lindsay have lead the development and planning of a 'One program two site model' for the delivery of cardiac and vascular surgery care in Northwestern Ontario, as announced by Minister Hoskins in July 2015. This joint CV program will extend the Peter Munk Cardiac Center's reach to re-establish local vascular care and support the development of a local Cardiac surgical service. In the interim the UHN Peter

Munk Cardiac center will be the site for EVAR cases performed by TBHSC surgeon(s). A new joint program in open thoraco-abdominal aneurysm repair has been created in conjunction with the Cardiac Surgery Division at UHN. This expanded the scope of treatment available for arch, thoraco-abdominal aneurysms and juxtarenal aneurysms complementing the advanced EVAR program. The Division continues to have a focus on safety and quality improvement through the SVS sponsored Vascular Quality Imitative which is coordinated by Dr Roche-Nagle. Dr Wooster received the Colin Wolff Award for Long Term Contributions to Continuing Education from the University of Toronto Division of CEPD. His Vascular Imaging Toronto Program - VITO course celebrated its 15th annual meeting. The Division's members continue to have significant leadership positions Dr Forbes (University Chair, Associate Editor Journal of Vascular Surgery, President of CSVS, Chair CCN Vascular Working Group), Dr Lindsay (Royal College Speciality Chair), Dr Oreopoulos (became the Director of Postgraduate Surgery Education Director in addition to his responsibilities as Vascular Surgery Program Director), Dr Roche-Nagle (Chair of the Radiation Safety Committee), Dr Rubin (Program Head, Peter Munk Cardiac Center, Chair of UHN MSH Academic Medical Organization), Dr Tse (Royal College Vascular Surgery exam committee) and Dr. Wooster (Chair, ACS CPD Committee). Dr Rasheed Osman completed a research fellowship with the Division publishing on the hospital costs of branched and fenestrated EVAR cases.

# Division of Cardiac Surgery

Dr. M. Badiwala Assistant Professor Dr. S.I. Brister Associate Professor Dr. R. Cusimano Associate Professor Dr. T.E. David Professor Dr. C. Feindel Professor Dr. R-K Li Professor Dr. M. Ouzounian Assistant Professor Dr. A.C. Ralph-Edwards Lecturer Dr. V. Rao Professor (Division Head) Dr. H. Scully Professor Dr. W.E. Stansfield Assistant Professor

Professor

Professor

#### **Publications**

Dr. R. Weisel

Dr. T.M. Yau

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#### **Invited Visits**

Cusimano, Robert: Department of Cardiovascular Surgery, 1st Affliated Hospital, Xinxiang Medical University, Xinxiang, Henan, China, 3-10 Nov 2014. Invited Lecturer: 1) Physiologic Basis for Use of Intra Aortic Balloon Pump Over Inotropes for Myocardial Ischemia. 2) Valve Insertion, Principles and Practice. 3) Basic Clinical Skills: Mitral Valve Insertion Lab. 4) Prosthetic Valve Orientation in Cardiac Surgery. 5) Aortic Valve Replacement in 2014 - Beyond the Standard operation.

Cusimano, Robert: The 25th Annual Meeting of the Scandinavian Society for Research in Cardiothoracic Surgery, Scandinavian Society For Research In Cardiothoracic Surgery, Geilo, Hol, Norway, 12 Feb 2015. Invited Speaker: 1) Cardiac Tumors. 2) Education of Cardiothoracic Surgeons in Canada.

David, Tirone E: American Association for Thoracic Surgery, Istanbul, Turkey, 5-6 Sep 2014. Invited Speaker: 1) Surgical treatment of mitral annulus abscess Video presentation on how to treat mitral annulus abscess. 2) Aortic root enlargement Video demonstration of patch enlargment of the aortic root. 3) Long term outcomes following mitral valve surgery.

David, Tirone E: Austral University, Buenos Aires, Argentina, 13 Sep 2014. Invited Lecturer: 1) Mitral valve prolapse: degenerative diseases. Technical aspects of repair and outcomes. 2) The David procedure: tips and mistakes. 3) Minimally invasive aortic valve replacement: advantages and risks.

David, Tirone E: Ministry of Health of Sao Paulo, Dante Pazzanese Institute of Cardiology, Sao Paulo, São Paulo, Brazil, 27 Nov 2014. Invited Speaker: Aortic valve repair. Valve replacement: mechanical or bioprosthetic?

David, Tirone E: University of British Columbia, Vancouver, British Columbia, Canada, 23 Oct 2014. Distinguished Speaker: The new treatment paradigm of aortic root aneurysms associated with genetic syndromes.

David, Tirone E: World Society of Cardiothoracic Surgeons, Geneva, Switzerland, 7 Sep 2014. Invited Lecturer: Repair of aortic cusps during aortic valve repair.

Li, Ren-Ke: 2nd Cardiovascular Forum for promoting centers of Excellence and Young Investigators, University of Manitoba, Winnipeg, Manitoba, Canada, 6 Sep 2014. Invited Speaker: A non-invasive technique for targeted gene delivery to enhance cardiac regeneration.

Li, Ren-Ke: Amity University - 7th International Conference on Recent Advances in Cardiovascular Sciences, Delhi, Uttar Pradesh, India, 10 Mar 2015. Invited Speaker: Uterine angiogenic stem cells for regeneration of ischemic cardiomyopathy.

Li, Ren-Ke: Harbin Medical University, Harbin, China, 1 Jul 2014. Invited Speaker: Microbubble for gene therapy to regenerate cardiac tissue: Non-invasive, targeted and repeatable.

Li, Ren-Ke: Indo-Canadian Symposium on Heart Failure: Progress and Prospects, Trivandrum, Kerala, India, 14 Mar 2015. Invited Speaker: Targeted gene therapy for progressive heart failure.

Li, Ren-Ke: Shobhaben Pratapbhai Patel School of Pharmacy & Technology Department, Mumbai, Maharashtra, India, 16 Mar 2015. Invited Speaker: Angiogenic stem cell for tissue regeneration: Cross talk between organs.

Li, Ren-Ke: University of Hong Kong, Department of Ophthalmology, Hong Kong, 6 Nov 2014. Visiting Professor: Heart, Brain, Hormone and Health Aging Research Centre.



Weisel, Richard: Harbin Medical University, Harbin, China, 2 Jul 2014. Presentation: Tissue engineering for cardiac restoration.

Weisel, Richard: Zhongshan Hoapital affiliated with the Fudan University, Shanghai, Shanghai, China, 7 Jul 2014. Presentation: Stem cell therapy for cardiac regeneration.

Yau, Terrence M: 25th International Symposium on Adult Congenital Heart Disease, Toronto, Ontario, Canada, 3 Jun 2015. 1) Invited Speaker: Mechanical Support in ACHD: what's new on the horizon and how might it help ACHD patients? 2) Chair: ACHD Transplant: Personal Reflections from Keynote Speakers.

Yau, Terrence M: American Association for Thoracic Surgery, Seatle, Washington, United States, 27 Apr 2015. Invited Speaker: Injectable Shear-Thinning Hydrogels Deliver Endothelial Progenitor Cells, Enhance Cell Engraftment, Increase Vasculogenesis, and Stabilize Regional Ischemic Myocardium.

Yau, Terrence M: Canadian Cardiovascular Society, Vancouver, British Columbia, Canada, 26 Oct 2014. Invited Speaker: MPC LVAD Phase I/Phase II.

Yau, Terrence M: CentriMag Acute Circulatory Support Course, Toronto, Ontario, Canada, 26 Feb 2015. Invited Speaker: 1) Weaning. 2) Case Studies.

Yau, Terrence M: CTSN LVAD MPC II Trial, Chicago, Illinois, United States, 3 Dec 2014. Invited Speaker: LVAD MPC II Trial & the Current State of CV Regenerative Interventions.

Yau, Terrence M: CTSN LVAD MPC II Trial, Washington, United States, 7 Apr 2015. Invited Speaker: 1) LVAD MPC II Trial & the Current State of CV Regenerative Interventions. 2) Stem cell injection techniques.

Yau, Terrence M: Heart Failure Symposium, Montreal, Quebec, Canada, 30 May 2015. Invited Speaker: Current Status of Stem Cell Therapies for Heart Failure.

Yau, Terrence M: NHLBI/FDA Joint Workshop, Baltimore, Maryland, United States, 14 May 2015. Invited Speaker: Current issues related to mitigating pump thrombosis.

# **Research and Investigations**

Blood conservation in cardiac surgery using a novel transfusion algorithm based on point-of-care testing: A stepped-wedge cluster randomized controlled trials. CIHR. Rao V, Karkouti K. (\$175,680.00 2014 – 2016).

Feasibility of a Conductive Polymer Biomaterial for Resynchronization of the Infarcted Heart. *Heart and Stroke Foundation of Canada*. *Li R-K*. (\$244,282.00 CAD, Jul 2014 - Jun 2017).

Innovative treatments for heart failure. PMCC Innovation Fnd. Weisel RD, Keller G, Zandstra P, Li R-K, Yau TM. (\$240,000.00 CAD, Jul 2014 - Jun 2015).

THR-184: A Phase II Multi-Center, Parallel-Group, Randomized, Double Blind, Proof-of-Concept, Adaptive Study Investigating the Safety and Efficacy of THR-184 Administered via Intravenous Infusion in Patients at Increased Risk of Developing Cardiac Surgery Associated-Acute Kidney Injury (CSA-AKI). *Thrasos Innovation Inc. Yau TM.* (CAD, Jan 2014 - present).

Towards a cell therapy application for using pluripotent stem cell-derived cardiomyocytes. Centre for Commercilization of Regenerative Medicine. Li R-K. (\$249,913.00 CAD, Dec 2014 - Nov 2015).

# Division of General Surgery

Professor	Dr. C-A.E. Moulton	Associate Professor
Associate Professor	Dr. C. O'Brien	Assistant Professor
Associate Professor	Dr. A. Okrainec	Associate Professor (Division Head)
Associate Professor	Dr. T. Penner	Assistant Professor
Professor	Dr. F.A. Quereshy	Assistant Professor
Assistant Professor	Dr. M. Reedijk	Associate Professor
Professor	Dr. L.E. Rotstein	Professor
Professor	Dr. E. Shlomovitz	Assistant Professor
Assistant Professor	Dr. M. Selzner	Assistant Professor
Assistant Professor	Dr. D.R. Urbach	Professor
Professor	Dr. A. Wei	Associate Professor
Associate Professor		
	Associate Professor Associate Professor Associate Professor Professor Professor Professor Professor Professor Assistant Professor Assistant Professor Assistant Professor	Associate Professor Associate Professor Dr. A. Okrainec Dr. T. Penner Professor Dr. F.A. Quereshy Assistant Professor Dr. M. Reedijk Professor Dr. L.E. Rotstein Professor Dr. E. Shlomovitz Assistant Professor Dr. M. Selzner Assistant Professor Dr. A. Wei

## **Publications**

Ait Ouakrim D, Dashti SG, Chau R, Buchanan DD, Clendenning M, Rosty C, Winship IM, Young JP, Giles GG, Leggett B, Macrae FA, Ahnen DJ, Casey G, Gallinger S, Haile RW, Le Marchand L, Thibodeau SN, Lindor NM, Newcomb PA, Potter JD, Baron JA, Hopper JL, Jenkins MA, Win AK. Aspirin, Ibuprofen, and the Risk of Colorectal Cancer in Lynch Syndrome. J Natl Cancer Inst. 2015 Jun 24; 107(9).



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Yurgelun MB, Masciari S, Joshi VA, Mercado RC, Lindor NM, Gallinger S, Hopper JL, Jenkins MA, Buchanan DD, Newcomb PA, Potter JD, Haile RW, Kucherlapati R, Syngal S, Colon Cancer Family Registry. Germline TP53 Mutations in Patients With Early-Onset Colorectal Cancer in the Colon Cancer Family Registry. JAMA Oncol. 2015 May 1; 1(2). PMID: 26086041. AID: 10.1001/jamaoncol.2015.0197.

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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. Annals of Surgery. 2015 Jan.

Zilbert NR, St-Martin L, Regehr G, Gallinger S, Moulton CA. Planning to Avoid Trouble in the Operating Room: Experts' Formulation of the Preoperative Plan. J Surg Educ. 2015 Apr 1; 72(2): 271-277.

#### **Invited Visits**

Cleary, Sean Patrick: 4th Workshop de Cirugia HPB-Associacion Higado Pancreas y Vias Biliares. Managua, Nicaragua, Dec 2014. Invited Speaker: Cholangiocarcinoma: Epidemiology to Treatment.

Cleary, Sean Patrick: AHPBA Ecuador-CIMEK. XI Congresso Internacional de Medicina y Especialidades Kennedy. Guayaquil, Ecuador., Jul 2014. Invited Speaker: 1) Tecnica en la colecistectomia "difiultosa" / Techniques in the difficult cholecystectomy. 2) Manejo de las injurias del tracto biliar/Management of bile duct injuries. 3) Tecnicas quirugicas en cirugias de pacientes cirroticas/ Surgical Techniques in the Cirrhotic Patient.

Cleary, Sean Patrick: Canadian Surgical Forum, Vancouver, Canada., Sep 2014. Invited Speaker: 1) Controversies in GI Surgery - SSAT/CAGS clinical symposium. 2) Medtronic Symposium - Techniques in HPB Surgery.

Cleary, Sean Patrick: National Institute of Health (US) / National Cancer Institute Hepatocellular Carcinoma Epidemiology Consortium (HCCEC) Conference. Houston, Texas, USA, Sep 2014. Invited Speaker: Natural History of HCC Patients in Canada.

Cleary, Sean Patrick: Symposium on Hepatic Oncology Whistler. Whistler, British Columbia., Jan 2015. Invited Speaker: HCC: Management of Recurrence Following Initial Resection or Transplant.

Cleary, Sean Patrick: The 2nd International Consensus Conference on Laparoscopic Liver Resection. Marioka City, Iwate, Japan, Oct 2014. Invited Speaker: 1) Costs of Laparoscopic Liver Resection. 2) Laparoscopic Liver Resection with Water Jet Dissection.

Escallon, Jaime: Colombian Association of Surgery, Cartagena, Bolívar, Colombia, 27 Jul 2014. Distinguished Speaker: DCIS Cancer o No Cancer?

Gallinger, Steven: AHPBA Annual Meeting, Miami, Florida, United States, 13 Mar 2015. 1) Invited Speaker: Cancer Genomics in HPB Malignancies. 2) Discussant: Management and outcome of colorectal cancer (CRC) liver metastases in the elderly: A population-based study.

Ghanekar, Anand: American Society of Transplant Surgeons, Miami, Florida, United States, 18 Jan 2015. Presenter: Pediatric Liver Transplant - Living Donor Left Lateral Segment. Video presentation.

Jackson, Timothy: American College of Surgeons - National Surgical Quality Improvement Program Annual Conference, New York, New York, United States, 26-28 Jul 2014. Invited Speaker: 1) Introduction and Evolution of the MBSAQIP Standards. 2) MBSQIP Lunch with the Expert. 3) MBSAQIP Lunch with the Expert - Data and Reporting.

Jackson, Timothy: CAGS Minimally Invasive Surgery Postgraduate Course: Advanced Endoscopy, Vancouver, British Columbia, Canada, 18 Sep 2014. Invited Speaker: Role of Gastroscopy in Evaluating Dyspesia.

Jackson, Timothy: Canadian Surgery Forum, Initiating a National Quality Agenda in HPB Surgery, Vancouver, British Columbia, Canada, 18-19 Sep 2014. 1) Invited Speaker: NSQIP - Initial Experiences and Lessons Learned. 2) Chair: CAGS/CMPA Symposium: Complications - "Best and Worst Case Scenarios".

Jackson, Timothy: Ontario Association of General Surgeons Annual General Meeting, Toronto, Ontario, Canada, 1 Nov 2014. Invited Speaker: 1) Pre-Operative Weight Loss. 2) Cost Containment in the Operating Room.

McCready, David: 40 Latin American and International Chapter Meeting of the American College of Surgeons, Cartagena, Colombia, Jul 2014. Invited Speaker: 1) Management of BRCA positive patients. 2) What is the appropriate margin width for breast conserving surgery for breast cancer?

Moulton, Carol-anne Evelyn: Cross-Canadian Collaboration in Surgery, Vancouver, British Columbia, Canada, 2015. Keynote Speaker: Peeking behind the curtain: Surgical judgment beyond cognition.

Moulton, Carol-anne Evelyn: Mayo Clinic - Grand Rounds, Rochester, New York, United States, 23 Apr 2015. Invited Speaker: Peeking behind the curtain: Surgical judgment beyond cognition.

Moulton, Carol-anne Evelyn: Mayo Clinic Multidisciplinary Simulation Center, Rochester, New York, United States, 22 Apr 2015. Invited Speaker: Challenges in the Assessment of Clinical Judgment.

Moulton, Carol-anne Evelyn: Memorial Sloan, Manhatten - Surgical Grand Rounds, New York, New York, United States, 23 Apr 2015. Invited Speaker: Peeking Behind the Curtain: Surgical Judgment Beyond Cognition.

Moulton, Carol-anne Evelyn: Northern Constellations, Sudbury, Ontario, Canada, 27-28 Mar 2015. 1) Invited Speaker: Peeking behind the curtain: Surgical judgment beyond cognition. 2) Keynote Speaker: Slowing down when you should: Moving from the routine to the effortful.

Moulton, Carol-anne Evelyn: Queen's Department of Surgery Annual William Ersil Resident Research Day, Kingston, Ontario, Canada, 17 Nov 2014. Keynote Speaker: 1) Peeking behind the curtain: surgical judgment beyond cognition. 2) Slowing down when you should: teaching while operating from the other side of the table.

Moulton, Carol-anne Evelyn: Royal College of Surgeons in Ireland (RCSI), Charter Day, Dublin, Dublin, Ireland, 6 Feb 2015. Keynote Speaker: The Vulnerability of the Surgeon in Shining Armour.

Reedijk, Michael: Canadian Breast Cancer Symposium, Toronto, Ontario, Canada, 19 Jun 2015. Invited Speaker: Predicting Cancer Behaviour.



Urbach, David Robert: Beth Israel Deaconess Medical Center, Boston, Massachusetts, United States, 2 Dec 2014. Visiting Professor: Six impossible things before breakfast: The Introduction of Surgical Safety Checklists in Ontario, Canada.

Wei, Alice: Canadian Surgery Forum, Vancouver, British Columbia, Canada, 18 Sep 2014. Invited Speaker: 1) Management of Difficult Choledocholithiasis. 2) The Difficult Common Bile Duct.

# **Research and Investigations**

Adapting Psychological Skills to Surgery: A Response to Physician Stress and Burnout. *The Canadian Physician Health Institute*. Moulton Carol-anne, Sonnadara R, Cil T, Deshauer S, Mutabdzic D. (\$36,290.00 CAD, May 2014 - May 2015).

Alex U. Soyka Pancreatic Cancer Research Project. Canadian Friends of the Hebrew University (CFHU). Gallinger S, Aqeilan R, Ben-Porath I, dor Y, Golan T, Hudson T, Karni R, Katzav-Shapira S, McPherson J, Stein L. (\$1,035,000.00 CAD, Feb 2014 - Feb 2017).

Development and Implementation of a Surgeon Cost Report Card: Behavioural Economics Applied to Surgical Cost Containment. Ontario Ministry of Health and Long-Term Care, Academic Health Science Centre Innovation Fund. Quereshy FA, Okrainec A, Sockalingam S, Caesar M. (\$132,996.00 CAD, Apr 2015 - Mar 2017).

Development and pilot testing of an uncertainly management telephone intervention for women attending a rapid diagnostic clinic for suspicious breast abnormality. RRISIQ. Maheu C, McCready DR, Fawcett S, Sarvanatham S, Stuart-McEwan T, Sidani S, Lambert S, Dubois S, Howell D. (\$15,000.00 CAD, Dec 2014 - Dec 2015).

Evaluation of Breast Cancer Surgical Margin Assessment with Optical Coherence Tomography (OCT) - intra-operative study. *Perimeter Medical Imaging, Inc. Leong W, Done S, Wilson B.* (\$600,000.00 CAD, Jun 2014 - May 2016).

Exploiting the therapeutic effects of the fecal microbiome in bariatric care. Canadian Institutes of Health Research (CIHR), Team Grant in Bariatric Care. Allard JP, Gaisano HY, Banks K, Comelli E, Gloor G, Hota S, Jackson TD, Lou W, Okrainec A, Philpott D, Poutanen S. (\$1,500,000.00 CAD, Oct 2014 - Sep 2019).

Ex Vivo Normothermic LIver Perfusion - Randomized Controlled Transplant Trial. Canadian Institutes of Health Research (CIHR). Grant D, Shapiro J, Low G, Henandez-Alejandro R, Hebert MJ, Klarenbach S, Kneteman N, Mengel M, Metrakos P, Paraskevas S, Roy A, Schulz K, Selzner M, Sis B, Tardif JC, Walsh M, West L, Alwayn I, Bagshaw S, Bain V, Barkun J, Burak K, Chung S, Coffin C, Eksteen J, Guertin MC, Johnson D, Mason A, McAlister V, Molinari M, Montano-Loza A, Tandon P, Wall D. (\$1,088,572.00 CAD, 2014 - 2017).

Hallmarks and Therapeutic Implications of "BRCAness" in Pancreatic Cancer. Canadian Cancer Society Research Institute (CCSRI). Gallinger S, Zogopoulos G, Hedley D, Bristow R, Serra S, Akbari MR, Dhani N. (\$1,229,505.00 CAD, Feb 2014 - Jan 2019).

HRC101 as oxygen carrier for normothermic ex vivo liver perfusion. *Therapure. Selzner M, Levy GA*. (\$144,560.00 CAD, Aug 2014 - Dec 2014).

Nanoparticle targeting of the liver. Canadian Institutes of Health Research (CIHR). McGilvray ID. (\$483,813.00 CAD, Oct 2014 - Apr 2017).

Pan-Canadian Colorectal Cancer Consortium (C4) - Phase II. Terry Fox Research Institute (TFRI). Gallinger S, Batist G, Gryfe R, Pollett A, Baxter N. (\$1,317,678.00 CAD, Apr 2014 - Sep 2017).

PanCuRx Translational Research Initiative. OICR - PanCuRx TRI. Gallinger S, McPherson J, Stein L, Wouters B, Moore M Team Members - Cleary S, Haider M, Khokha R, Pugh T, Roehrl M, Haibe-Kains B, Hedley D, Kislinger T, Muthuswamy S. (\$1,059,888.00 CAD, Apr 2015 - Mar 2019).

Phenotypic and transcriptional characterization of tumor-initiating cells in primary human hepatocellular carcinoma. *Cancer Research Society. Ghanekar A, Dick J.* (\$120,000.00 CAD, Sep 2014 - Aug 2016).

Pilot study to evaluate the faeasibility of an innovative smartphone enabled health coaching intervention (iMOVE) to promote long-term maintenance of physical activity behavior in breast cancer survivors. *Canadian Breast Cancer Foundation (CBCF)*. *Jones J, Ritvo P, Hernandez C, McCready DR*. (\$331,988.00 CAD, Jul 2014 - Feb 2017).

Portable intraoperative fluorescence imaging for real-time margin assessment and guidance during breast cancer surgery. Canadian Institution of Health Research. Leong WL, DaCosta R. (\$456,000.00 CAD, Sep 2014 - Sep 2017).

Predicting hepatocellular carcinoma recurrence after liver transplantation through molecular profiling and development of a circulating tumor DNA assay: A pilot study. *UHN Multi-Organ Transplant Program*, MOT/Astellas. Ghanekar A, Cleary S, Pugh T. (\$45,000.00 CAD, Sep 2014 - Aug 2015).

Role of intestinal microbiota in non-alcoholic fatty liver disease pre and post bariatric surgery. Government of Canada, Canadian Institutes of Health Research (CIHR). Allard J, Comelli E, Gloor G, Jackson T, Lou W, Okrainec A. (\$522,167.00 CAD, Jul 2014 - Jun 2015).

Safety of medical devices licensed for use in Canada: A mixed methods study to ifnorm policy for effective post-market survellience. Canadian Institutes of Health Research (CIHR). Gagliardi A, Urbach D, Bell C, Lehoux P, Ross S, Ducey A, Easty A, Trbovich P. (\$301,055.00 CAD, Apr 2014 - Mar 2017).

Targeting colorectal cancer-initiating cells and anti-EGFR therapeutic resistance by manipulating levels of the reactive aldehyde, 4hydroxynonenal. CIHR. O'Brien CA. (\$35,000.00 2014-2019).

Telephone-based cognitive behavioural therapy for bariatric surgery patients: A randomized controlled trial. Canadian Institutes of Health Research (CIHR). Sockalingam S, Cassin S, Parikh S, Urbach D, Hawa R, Jackson T, Wnuk S. (\$100,000.00 CAD, Apr 2014 - Mar 2015).



The Inference From Observational Research Methods (INFORM) Project. (Principal Investigator). Canadian Institutes of Health Research (CIHR). Urbach D, Baxter N, Bell C, Gagliardi A, Tomlinson G. (\$501,723.00 CAD, Oct 2014 - Sep 2018).

Tranexamic Acid Versus Placebo to Reduce Perioperative Blood Transfusion in Patients Undergoing Major Liver Resection: A Pilot Randomized Controlled Trial. (Co-Investigator). Canadian Institutes for Health Research. Wei A, Karanicolas P. (\$248,319.00 CAD, Apr 2014 - Mar 2016).

## **Honours and Awards**

Greig, Paul: 2014 Mentor of the Year - Region 3, Royal College of Physicians and Surgeons of Canada. Mar 2014 - Feb 2015.

Greig, Paul: Francis Moore Excellence in Mentorship in the Field of Transplantation Surgery Award, American Society of Transplant Surgeons (ASTS). 2014.

Jackson, Timothy: David Fear Fellowship Award, University of Toronto Faculty of Medicine Education Achievement, Toronto, Ontario, Canada. Jul 2014 - Jun 2015.

Jackson, Timothy: Frank Mills Award for Excellence in Teaching by a General Surgery Faculty Member, University Health Network, General Surgery, Dept of Surgery, Faculty of Medicine, Toronto, Ontario, Canada. Jul 2014 - Jun 2015.

Quereshy, Fayez A: CAME New Educator Award, Canadian Association of Medical Education. Dept of Surgery, Faculty of Medicine. May 2015.

Quereshy, Fayez A: Wightman-Berris Academy Individual Teaching Award, University of Toronto, Dept of Medicine, Faculty of Medicine, Ontario, Canada. 2014 - 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	Associate 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**

Agnihotri S, Aldape KD, Zadeh G. Isocitrate dehydrogenase status and molecular subclasses of glioma and glioblastoma. Neurosurg Focus. 2014 Dec; 37(6). PMID: 25434382.

Agnihotri S, Burrell K, Buczkowicz P, Remke M, Golbourn B, Chornenkyy Y, Gajadhar A, Fernandez NA, Clarke ID, Barszczyk MS, Pajovic S, Ternamian C, Head R, Sabha N, Sobol RW, Taylor MD, Rutka JT, Jones C, Dirks PB, Zadeh G, Hawkins C. ATM regulates 3-methylpurine-DNA glycosylase and promotes therapeutic resistance to alkylating agents. Cancer Discov. 2014 Oct; 4(10): 1198-213.

Agnihotri S, Gugel I, Remke M, Bornemann A, Pantazis G, Mack SC, Shih D, Singh SK, Sabha N, Taylor MD, Tatagiba M, Zadeh G, Krischek B. Gene-expression profiling elucidates molecular signaling networks that can be therapeutically targeted in vestibular schwannoma. J Neurosurg. 2014 Dec; 121(6): 1434-45.

Aldape K, Zadeh G, Mansouri S, Reifenberger G, von Deimling A. Glioblastoma: pathology, molecular mechanisms and markers. Acta Neuropathol. 2015 May. PMID: 25943888.

Alhadid K,Cruickshank RR, Mansouri A, Mikulis DJ & Valiante TA. Rapidly Progressing De Novo Arachnoid Cyst in an Adult Patient. 2014 Dec 1.



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#### **Invited Visits**

Davis, Karen Deborah: 5th International Congress on Neuropathic Pain: Neuropathic Pain (Special Interest Group of IASP), Nice, France, May 2015. 1) Speaker: Brain imaging of treatment effects in chronic pain conditions workshop talk. 2) Chair: Brain Imaging in Neuropathic Pain: Role in assessing mechanisms & treatment effects workshop.

Davis, Karen Deborah: BrainMap Seminar Series; Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital and Harvard Medical School, Bostron, Massachusetts, United States, Jun 2015. Invited Lecturer: Imaging abnormalities and treatment effects in chronic pain: insights from individual differences.

Davis, Karen Deborah: Canadian Pain Society, Charlottetown, Prince Edward Island, Canada, May 2015. 1) Speaker: How does your brain respond to pain? A TED-Ed YouTube Animation (in workshop: Using YouTube videos as a means of widely disseminating knowledge about pain) workshop talk. 2) Chair: Probing neural networks dynamics of pain and attention: Insights into brain mechanisms underlying individual variability in pain coping and chronic pain vulnerability workshop.

Davis, Karen Deborah: Canadian Sports Concussion Project: 3rd Annual Symposium: Research on The Concussion Spectrum of Disorders, Toronto, Ontario, Canada, 17 Jan 2015. Invited Speaker: Applying machine learning classifiers to discriminate concussed athletes from non-concussed subjects based on diffusion tensor imaging.

Davis, Karen Deborah: International Association for the Study of Pain, 15th World Congress on Pain, Buenos Aires, Argentina, Oct 2014. 1) Speaker: Functional and structural brain circuitry reflects individual variability in pain habituation and pain-attention interactions. 2) Chair: Nature and Nurture: Individual factors shape our brain and pain experience – Implications for pain imaging diagnostics. 3) Chair: Neural network dynamics, attention and individual variability of acute and chronic pain-related brain activity.

Davis, Karen Deborah: Northumberland Learning Connection, Cobourg, Ontario, Canada, Apr 2015. Invited Speaker: 1) Measuring inner space: deep brain imaging and neural response. 2) Ethics and Brain Imaging Measurements.

Davis, Karen Deborah: University of Waterloo, Vision Science Graduate Student Conference, Waterloo, Ontario, Canada, Apr 2015. Invited Lecturer: Brain representations of pain sensitivity: Your Brain is Not My Brain!.



Fehlings, Michael: 19th Annual Instructional Course, Cervical Spine Research Society, Orlando, Florida, United States, 3 Dec 2014. Invited Lecturer: Known factors affecting surgical outcomes for cervical radiculopathy and myelopathy.

Fehlings, Michael: 21st International Meeting of Advanced Spine Techniques (IMAST), Valencia, Spain, 16-18 Jul 2014.

1) Presenter: Cervical Degenerative Disease and CSM Case presentation at roundtable discussion. 2) Debater: Cervical Spinal Cord Compression with T2 Signal Change: Observe or Operate Debate. 3) Moderator: Cervical Spine Trauma Roundtable. 4) Invited Speaker: Concussion During Sports Injury: When can you Return to Play.

Fehlings, Michael: 30th Brazilian Congress in Neurosurgery, Curitiba, Brazil, 14-15 Sep 2014. Invited Speaker: 1) Current Concepts in Spinal Tumors and Spinal Cord - Module IV: Intradural and Intramedullary Tumors. 2) Current Concepts in Spinal Tumors and Spinal Cord - Module II: Metastatic Disease. 3) Radiological Prognostic Factors and Surgical Planning.

Fehlings, Michael: 42nd Annual Meeting, Cervical Spine Research Society, Orlando, Florida, United States, 4 Dec 2014. Invited Speaker: 1) Cervical spondylotic myelopathy. 2): 21st Century Research & Education Grant Update: Therapeutic approaches to protect against ischemia/reperfusion injury following surgical decompression for cervical spondylotic myelopathy: A potential solution to attenuate perioperative neurological complication following decompressive surgery.

Fehlings, Michael: 68th Annual Meeting of the American Academy for Cerebral Palsy and Developmental Medicine (AACPDM), San Diego, California, United States, 12 Sep 2014. Invited Speaker: Neural Stem Cells as a Potential Therapeutic Approach for Developmental Brain Disorders: What Does the Clinician Need to Know Instructional Course.

Fehlings, Michael: AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, Arizona, United States, 4-6 Mar 2015. Invited Speaker: 1) Operate early. 2) Prognostic factors for survival in surgical series of symptomatic metastatic epidural spinal cord compression: a prospective North American multicenter study in 145 patients. 3) Laminoplasty vs laminectomy and fusion to treat cervical spondylotic myelopathy: outcomes of the prospective multicenter AOSpine International CSM study. 4) Clinical and surgical predictors of perioperative complications in patients with degenerative cervical myelopathy: results from the multicenter, prospective AOSpine International study on 479 patients. 5) Role of quantitative MRI assessments in predicting surgical outcome in cervical spondylotic myelopathy patients: results from the prospective, multicenter AOSpine North America study. 6) History of AOSpine. 7) Spinal cord injury - current status and new developments (RISCIS trial). 8) Update on management of spinal cord injury.

Fehlings, Michael: American Association of Neurological Surgeons, Washington, District of Columbia, United States, 2-5 May 2015. 1) Moderator: Management of acute spinal cord injury. 2) Invited Speaker: Principles of nonoperative management of spinal cord injury and an update on translational research. 3) Co-Director: Update on management of spinal cord injury. 4) Invited Speaker: Management of spinal cord injury and update on translational research.

Fehlings, Michael: American Congress of Rehabilitation Medicine (ACRM), Toronto, Ontario, Canada, 10 Oct 2014. Invited Speaker: Emerging Biological Targets for Spinal Cord Repair and Regenerative Rehabilitation.

Fehlings, Michael: Annual Meeting of the Congress of Neurological Surgery, Boston, Massachusetts, United States, 20 Oct 2014. Invited Speaker: A Question of Balance: From Brain Monitoring to Spine Surgery - Early Decompression of Central Cord Injury.

Fehlings, Michael: AO Spine Global Spine Congress, Buenos Aires, Argentina, 20-23 May 2015. 1) Moderator: Degenerative Cervical II. 2) Invited Speaker: What to do with asymptomatic stenosis, cord signal change with minimal symptoms, symptoms on the opposite side of compression. 3) Moderator: Cervical trauma. 4) Invited Speaker: Translational research in spinal cord injury. What is new? What is hot? 5) Moderator: Precourse knowledge forum: spinal cord injury and trauma.

Fehlings, Michael: AOSpine Davos Courses 2014, Davos, Switzerland, 15-16 Dec 2014. 1) Invited Speaker: Solutions for Complex Cases: Congenital Deformity with a Complication Cascade. 2) Moderator: Preventing and Managing Complications: Implant Failure in Osteoporotic Spine.

Fehlings, Michael: AOSpine Symposium, Prague, Czech Republic, 15 Oct 2014. Invited Speaker: Central cord injury: Current concepts and emerging trends.

Fehlings, Michael: ASIA/ISCOS Joint Scientific Meeting, Montreal, Quebec, Canada, 15-16 May 2015. Keynote Speaker: 1) Efficacy and safety of Riluzole in acute spinal cord injury. Rationale and design of AOSpine phase III multicentre double blinded randomized trial. 2) Quantitative MRI techniques and their applications to spinal cord injury. 3) Emerging concepts in the pathology and clinical management of degenerative conditions of the spine causing spinal cord dysfunction.

Fehlings, Michael: British Association of Spinal Surgeons, Bath, United Kingdom, 20 Mar 2015. Keynote Speaker: Spinal cord injury management and prospects on the horizon.

Fehlings, Michael: Canadian Spinal Cord Conference, Banff, Alberta, Canada, 28 Apr 2015. Invited Speaker: Novel insights into cervical spinal cord injury: from molecule to man.

Fehlings, Michael: Cere Stem Cell Symposium, EVER Neuro Pharma GMBH, Salzburg, Austria, 10 Nov 2014. Invited Speaker: Repair and regeneration of the injured spinal cord: From molecule to man.

Fehlings, Michael: Complex cervical spine surgery and complications, Phoenix, Arizona, United States, 20-21 Feb 2015. Invited Speaker: 1) Prevention and management of perioperative spinal cord injury. 2) Spinal Cord Injury: current state of affairs.

Fehlings, Michael: EANS European Congress, Prague, Czech Republic, 13-16 Oct 2014. 1) Invited Speaker: Metastasis: Should we be aggressive. 2) Chair: Current concepts in the management of central cord injury. 3) Invited Speaker: Repair and regeneration of the injured spinal cord: From molecule to man.

Fehlings, Michael: Jefferson Grand Rounds, Jefferson University, Philadelphia, Pennsylvania, United States, 12 Feb 2015. Visiting Professor: Repair and regeneration of the injured spinal cord: From molecule to man.



Fehlings, Michael: Neuroscience Grand Rounds, Massachusetts General Hospital, Boston, Massachusetts, United States, 16 Apr 2015. Visiting Professor: Repair and regeneration of the injured spinal cord: From molecule to man.

Fehlings, Michael: North American Spine Society, San Francisco, California, United States, 14 Nov 2014. 1) Moderator: Complications Following Spine Surgery. 2) Invited Speaker: Global Spine Forum AOSpine: New evidence regarding the timing of surgery and neurological outcomes.

Fehlings, Michael: One AO - Common problems and common solutions across disciplines, Las Vegas, Nevada, United States, 6 Feb 2015. Invited Speaker: Current advances in the pathobiology and management of cervical spondylotic myelopathy.

Fehlings, Michael: Oregon Health and Sciences University, Portland, Oregon, United States, 29 Sep 2014. Invited Speaker: 1) Role and Timing of Surgery for Spinal Cord Injury. 2) Repair and regeneration of the injured spinal cord: From molecule to man.

Fehlings, Michael: Sanford J. Larson Visiting Professor Lecture, Medical College of Wisconsin, Milwaukee, Wisconsin, United States, 31 Oct 2014. Invited Lecturer: New Concepts in the Pathophysiology and Treatment of Cervical Spondylotic Myelopathy: From Molecule to Man.

Fehlings, Michael: Severance Hospital, Seoul, Korea, Republic Of, 2 Mar 2015. Visiting Professor: New developments in the pathophysiology and treatment of cervical spondylotic myelopathy: from molecule to man.

**Fehlings, Michael:** Spine: Base to Summit, Broadwater LLC, Beaver Creek, Colorado, United States, 16-19 Jan 2015. 1) Invited Speaker: My own complications - where I went wrong, and tips for avoiding and managing the same situation. 2) Moderator: Spinal Trauma - Concepts, Controversies and Complications. 3) . Invited Speaker: Management of spinal trauma: concepts and controversies.

Fehlings, Michael: The Ottawa Neurosurgery Review Course, Ontario, Canada, 9 Feb 2015. Invited Lecturer: Acute spinal cord pathophysiology and management.

Hodaie, Mojgan: 12th International Stereotactic Radiosurgery Society Congress, Yokohama, Japan, 7-9 Jun 2015. 1) Invited Lecturer: Imaging in Functional Radiosurgery. 2) Invited Moderator: Pre-Congress Basic Educational Course Session

Hodaie, Mojgan: 44th Annual Meeting of the Japanese Society of Neuroradiology, Nagoya, Aiti [Aichi], Japan, 6-7 Mar 2015. 1) Chair: YNS (Young Neurosurgeon's Society) Session. 2) Keynote Speaker: Imaging of Neuropathic pain: insights gained from the treatment of trigeminal neuralgia. 3) Keynote Speaker: Applications of higher order tractography methods in neurosurgery.

Hodaie, Mojgan: Phnom Penh [Phnum Pénh], Cambodia, 14 Nov 2014. Keynote Speaker: Cambodia Neurosurgery Education Symposium.

Hodaie, Mojgan: Saudi International Stereotactic and Functional Neurosurgery Conference, Riyadh, Saudi Arabia, 26-27 Nov 2014. Invited Speaker: 1) Application of structural brain imaging techniques to Functional Neurosurgery. 2) Neuroimaging correlates of pain: Lessons learned from Trigeminal Neuralgia. 3) Functional Radiosurgery: Treatment of pain, tremor and more. 4) Women and Science.

Kalia, Suneil K: DBS Canada Day Conference 2014, Toronto, Ontario, Canada, 4 Jul 2014. "DBS for PD – Other Targets (VIM, PPN, PSA)". July 4-5th, 2014.

Massicotte, Eric: AO North America, Las Vegas, Nevada, United States, 23 Jan 2015. Invited Lecturer: Principles and Treatment of Spinal Disorders for Residents.

Massicotte, Eric: AO North America, Las Vegas, Nevada, United States, 11 Oct 2014. Invited Lecturer: Principles and Treatment of Spinal Disorders for Residents.

Massicotte, Eric: AO North America, Long Beach, California, United States, 18 Sep 2014. Invited Speaker: 1) Controversies in Complex Spine Surgery: A Comprehensive Hands-on Bioskills Course for Fellows. 2) Controversies for Fellows.

Radovanovic, Ivan: Acoustic Neuroma Association of Canada 2014 Symposium, Toronto, 18 Oct 2014. Speaker: Surgical approaches for Vestibular Schwannoma.

Shamji, Mohammed: Canadian Neuromodulation Society, Sep 2014. Keynote Speaker: Spinal Cord Stimulation - Innovations in Technology, Technique, and Indications.

Shamji, Mohammed: Spine: Base to Summit, Jan 2015. Invited Speaker: Non-BMP Osteobiologics.

Tymianski, Michael: 2014 Candian Stroke Congress, Vancouver, British Columbia, Canada, 6 Oct 2014. Invited Speaker: PSD95 -Its origin to the latest clinical trial (NA-1 Trial).

Tymianski, Michael: Barrow Institute Symposium, Phoenix, Arizona, United States, 12 May 2015. Invited Speaker: Update on the FRONTIER trial: prehospital treatment of stroke with NA-1.

Tymianski, Michael: BCEHS Physician's EMS Forum 2014, Vancouver, British Columbia, Canada, 5 Nov 2014. Invited Speaker: The Story of NA-1.

Tymianski, Michael: British Neurovascular Meeting, East Sussex, United Kingdom, 2 Feb 2015. Invited Speaker: 1) Multidisciplinary management of unruptured anterior circulation aneurysms by open minicraniotomy for endovascular therapy: analysis of costs and outcomes. 2) Indications for high and flow EC-IC bypass in the modern era. 3) Development of PSD95 inhibitors for the treatment of iatrogenic and spontaneous stroke-a bench to bedside to curbside story.

Tymianski, Michael: Dal Surgery Research Day, Dalhousie University, Halifax, Nova Scotia, Canada, 24 Apr 2015. Visiting Professor: 2015 Dr. Bethune Visiting Professor Translation of PSD95 Inhibitors from target discovery to phase 3 trials for the treatment of stroke.



Tymianski, Michael: Gordon Research Conference 2015: Oxidative Stress + Disease, Ventura, California, United States, 4 Mar 2015. Discussion Leader: Novel Oxidases and Disease GRC on Oxidative Stress + Disease: The Redox Biology of Age-related disease.

Tymianski, Michael: Neurological Emergencies Treatment Trials Ctr, Dept of Emergency Medicine, University of Michigan Health System, Detroit, Michigan, United States, 14 Jan 2015. Invited Speaker: Update on the Frontier trial Pre-hospital stroke trial meeting.

Tymianski, Michael: Society of Neurological Surgeons 2014 Annual Meeting, Seattle, Washington, United States, 17 Jul 2014. Invited Speaker: Multidisciplinary management of unruptured anterior cirulation aneurysms by open minicraniotmy or endovascular therapy: analysis of costs and outcomes. conference dates.

Tymianski, Michael: St Luke's Medical Center, Quezon, Philippines, 4 Dec 2014. Invited Speaker: 1) Development of PSD95 inhibitors for the treatment of stroke-from Bench to Phase 3 trials. 2) Carotid Disease: when to treat and with what. 3) The natural history and surgical management of complex AVMs. 4) Surgical management of complex aneurysms.

Tymianski, Michael: XXV International Symposium of Neurosurgery, Colombian Association Neurosurgery, Cartagena, Distrito Capital de Bogotá, Colombia, 26 Mar 2015. Invited Speaker: 1) Microsurgery for complex aneurysms. 2) Microsurgery for AVMs: indications, techniques and complications. 3) After Aruba; which unruptured brain AVMs should be treated? The point of view of the neurosurgeon. 4) EC-IC bypass surgery: indications and techniques. What is the future?.

Valiante, Taufik: Workshop at Amrita institute along with Cleveland Clinic Epilepsy, Amrita Institute, Cochin, Kerala, India, 21-22 Nov 2014. 1) Invited Speaker: Subdural/depth electrodes implantation and resection planning in a case of MRI normal epilepsy. 2) Keynote Speaker: Epilepsy surgery: past, present, and future.

Valiante, Taufik: Department of Neuroscience, Laramie, Wyoming, United States, 30 Oct 2014. Invited Speaker: Epilepsy: A window to brain mechanisms.

Valiante, Taufik: World congress on medical biophysics and biomedical engineering, Toronto, Ontario, Canada, 9 Jun 2015. Keynote Speaker: From human neuron to human brain: Neurosurgical contributions to understanding the brain.

Zadeh, Gelareh: 19th Annual Scientific Meeting of the Society for Neuro-Oncology (SNO), Florida, United States, Nov 2014. Invited Speaker: Clinical Controversies in Management of Brain Metastases.

Zadeh, Gelareh: Acoustic Neuroma Association of Canada, Ontario, Canada, Oct 2014. Invited Speaker: Patient Care Pathway for Acoustic Neuroma and Future Directions.

Zadeh, Gelareh: Centre de Recherche Public de la Santé (CRP-Santé), Luxembourg, Sep 2014. Invited Speaker: Mechanisms of failure of anti-angiogenesis therapy in glioblastoma.

Zadeh, Gelareh: Department of Biomedicine, University of Bergen, Norway, Sep 2014. Invited Speaker: Targeting tumour metabolism in glioblastoma.

Zadeh, Gelareh: Department of Neurosurgery, University of Indiana, United States, Jul 2014. Invited Speaker: Anti-angiogenesis therapy in brain tumours.

Zadeh, Gelareh: Joint conference organized with Professor Kaye, President of Australasia Society and Chair of Surgery, Australia, Nov 2014. Invited Speaker: Management of Atypical Meningiomas: Role of Surgery.

Zadeh, Gelareh: Neurofibromatosis Society of Ontario, Ontario, Canada, Oct 2014. Invited Speaker: Introducing an Ontario Province Wide NF Multidisciplinary Program.

## **Research and Investigations**

Adaptive/closed loop vs. continuous/open loop deep brain stimulation of subthalamic nucleus: a two-phase, cross-over, double-blind trial in patients with Parkinson's disease. Weston Brain Institute. Fasano A, Chen R, Strafella A, Hodaie M, Lozano A. (\$650,000.00 CAD, 2014).

Alterations in spinal respiratory networks after cervical SCI. Paralyzed Veterans of America (PVA) Research Foundation. Fehlings M. (\$145,044.00 USD, Jan 2015 - Dec 2016).

An examination of the therapeutic impact of human induced pluripotent stem cell derived neural precursor cells in cervical spinal cord injury. Wings for Life Spinal Cord Research Foundation. Fehlings M. (\$77,340.00 EUR, Jul 2014 - Jul 2015).

Brain and Spinal Cord Injury Translational Clinical Research Unit. *Private donor. Fehlings M.* (\$1,000,000.00 CAD, Jul 2014 - Jun 2015).

Cerebral Palsy Research Fund. Private donor. Feblings M. (\$100,000.00 CAD, Jan 2014 - Dec 2015).

Coagulation system effectors as regulators of tumour dormancy and therapeutic targets. Canadian Institute of Health Research. Zadeh G, Rak J. (CAD, 2014 - 2019).

Deep brain stimulation of the pedunculopontine nucleus to improve walking after spinal cord injury. *Rick Hansen Institute. Lozano A, Fehlings M, Lasano A.* (\$150,000.00 CAD, Jan 2015 - Jan 2017).

Development of a next-generation PSD95 inhibitor for the treatment of acute ischemic stroke. NIH, NINDS Translational research cooperative agreement. Tymianski M. (\$3,771,814.00 USD, Sep 2014 - Sep 2017).

Evaluating cervical spondylotic myelopathy (CSM) through novel sensitive upper limb and gait assessments: Elucidating the mechanisms of disrupted manual dexterity and locomotion in humans. *Cervical Spine Research Society. Kalsi-Ryan S, Karadimas S, Fehlings MG.* (\$25,000.00 USD, Jan 2014 - Dec 2014).



Examination of brain coordination dynamics underlying hypnosis and volitional acts using intracranial electroencephalography. *Bial Foundation. Valiante T, Velazquez JLP.* (\$50,000.00 EUR, May 2015 - May 2017).

Imaging Genomics of Brain Aneurysms. Brain Aneurysm Foundation (The). Radovanovic I. (\$25,000.00 USD, 2014 - 2015).

Inhibition of MMPs in Malignant Meningiomas. Adam Coules Research Grant. Zadeh G. (\$50,000.00 CAD, 2014).

Ketamine infusion for refractory neuropathic pain - prediction and correlation of clinical outcomes with functional magnetic resonance imaging. MSH-UHN AMO/AFP, AHSC AFP Innovation Fund. Davis KD, Bhatia A, Venkatraghavan L, Mikulis D, Peng P. (\$173,430.00 CAD, Apr 2015 - Mar 2017).

Limiting axonal degeneration in a model of multiple sclerosis. *National Multiple Sclerosis Society, USA. Velumian A, Petratos S (Monash University, Australia).* (\$74,325.90 EUR, Aug 2014 - Jul 2015).

Long-term stability of local field potentials recorded from the subthalamic nucleus and effects of deep brain stimulation. Canadian Insitutes of Health Research. Chen R, Fasano A, Hodaie M, Jog M, Kalia S, Lozano A. (\$270,228.00 CAD, 2014 - 2017).

Long-term stability of local field potentials recorded from the subthalamic nucleus and effects of deep brain stimulation. *Medtronic. Hodaie M, Chen R, Alfonso F, Jog MS, Kalia SK, Lozano AM*. (\$40,534.20 2014-2017).

Mechanistic insights and neuroprotective approaches to enhance recovery in age related spinal cord degeneration. Canadian Institutes of Health Research. Fehlings MG. (\$569,330.00 CAD, Jul 2014 - Jun 2019).

Modulating memory circuits: Focal DBS treatments to improve memory function. *Brain Canada, Multi-Investigator Research Initiative (MIRI). Hoffman K, Lozano A, Chakravarty M, Lerch J, Popovic M, Williams S.* (\$1,500,000.00 CAD, Apr 2015 - Apr 2018).

Molecular Mechanisms Underlying the Development of Neuropathic Pain in Mouse Model of Disc Herniation Radiculopathy. Canadian Pain Society, Early Career Investigator Pain Research Grant. Shamji, MF. (\$50,000.00 CAD, May 2014 - Apr 2015).

Optical coherence tomography, optical topographical imaging and fluorescence guided surgical laser ablation. NSERC. Yang V. (\$35,000.00 2014-2019).

Optically guided laser ablation with integrated surgical navigation (Refined Manufacturing Acceleration Process - Re-MAP). Network Centres of Excellence (NCE). Yang V. (\$59,000.00 2014-2018).

Pathophysiology of Parkinson's disease. Canadian Insitutes of Health Research. Chen R, Fasano A, Hodaie M, Kalia S, Lozano A. (\$1,250,785.00 CAD, 2014 - 2019).

Preventing neurlogical decline in cervical spondylotic myelopathy with intravenous IgG. PSI Foundation. Feblings MG. (\$82,750.00 2014-2016)

Promoting neural regeneration with stem cell based therapies: A novel source of autologous human neural stem cells for transplantation. Canadian Institutes of Health Research (CIHR), Industry-Partnered Collaborative Research. Morshead CM, Dancause N, Mendez IM, Shoichet MS, Fehlings MG. (\$1,250,000.00 CAD, Apr 2014 - Mar 2019).

Tau Ligand for the Diagnosis of Chronic Traumatic Encephalopathy in Retired CFL Athletes. Weston Brain Institute, Rapid Response Grant: Neurogenerative Diseases of Aging. Tartaglia C, Davis KD, Ezrins L, Green R, Hazrati L-N, Houle S, Mikulis D, Murphy K, Tator C, Wilson A. (\$150,000.00 CAD, Jul 2014 - Jan 2016).

Testing neural precursors as mediators and facilitators of constraint induced movement therapy in cerebral palsy. *NeuroDevNet. Feblings MG*. (\$36,001.00 CAD, Apr 2015 - Apr 2016).

The Frontier Trial- Field Randomization of NA-1 treatment in early responders. *Brain Canada. Tymianski M, Morrison L.* (\$6,600,000.00 CAD, Sep 2014 - Sep 2014).

The pain connectome in multiple sclerosis. (Principal Investigator). Multiple Sclerosis Society of Canada. Davis K, Hodaie M, O'Connor P, Mikulis DJ. (\$200,767.00 CAD, Apr 2015 - Apr 2017).

Therapeutic potential of human induced pluripotent stem cell-derived neural precursor cells in cervical spinal cord injury. *Rick Hansen Institute. Fehlings M.* (\$100,000.00 CAD, Oct 2014 - Sep 2016).

Validation of monitoring changes in brain synchrony to anticipate seizures and implement feedback stimulation to stop seizure occurrence. Ontario Brain Institute. Valiante T, Velazquez P, Genov. (\$125,000.00 CAD, Jan 2015 - Jan 2016).

#### **Honours and Awards**

**Fehlings, Michael:** 2014 Outstanding Paper Award for Surgical Science, The Spine Journal and the North American Spine Society, United States. "A clinical prediction model to assess surgical outcomes in patients with cervical spondylotic myelopathy: International and external validation using the prospective multicenter AOSpine North American and International Datasets of 743 patients". Nov 2014

Fehlings, Michael: Elected Fellow, Canadian Academy of Health Sciences, Canada. Sep 2014.

Fehlings, Michael: Elected Fellow, Royal Society of Canada, Canada. Nov 2014.

Lozano, Andres M: Cloward Award, Western Neurosurgical Society. 2014.

Lozano, Andres M: Honoured Guest, American Society for Stereotactic and Functional Neurosurgery (Biennial Meeting). 2014

Lozano, Andres M: Honoured Guest, Annual meeting of the Neurosurgical Society of the Virginias. 2014.

Lozano, Andres M: Innovations Award, Canadian College of Neuropsychopharmacology, Canada. 2014.



Zadeh, Gelareh: Bernard Langer Surgeon-Scientist Award, University of Toronto, Toronto, Ontario, Canada. 2014.

Zadeh, Gelareh: Ross Fleming Surgical Educator Award, University of Toronto, Dept of Surgery, Faculty of Medicine, Toronto, Ontario, Canada. 2014.

Zadeh, Gelareh: Wightman-Berris Academy Individual Teaching Excellence Award, University of Toronto. Neurosurgery, Dept of Surgery, Faculty of Medicine. 2014.

# Division of Orthopaedics

Dr. R.S. Bell	Professor
Dr. J.R. Davey	Associate Professor
Dr. M. Erwin	Assistant Professor
Dr. R. Gandhi	Assistant Professor
Dr. P. Henry	Assistant Professor
Dr. J. Lau	Assistant Professor
Dr. S. Lewis	Associate Professor
Dr. N.N. Mahomed	Professor (Division Head)
Dr. K.W. Marshall	Assistant Professor
Dr. D.J. Ogilvie-Harris	Associate Professor
Dr. Y.R. Rampersaud	Associate Professor
Dr. K. Syed	Assistant Professor
Dr. C. Veillette	Assistant Professor

#### **Publications**

Abdallah FW, Chan VWS, Gandhi R, Koshkin A, Abbas S, Brull R. Analgesic Effects of Proximal, Distal, or No Sciatic Nerve Block on Posterior Knee Pain after Total Knee Arthroplasty: A Double-blind Placebo-controlled Randomized Trial. Anesthesiology. Anesthesiology 2014 Dec; 121(6) 1302-10.

Byck, BA, Zywiel M, Mahomed A, Gandhi R, Perruccio AV, Mahomed NN. Clinical Factors and Patient Expectations in Orthopaedic Surgery. Expert Rev Med Devices. 2014 Jul;11(4):403-15.

Collaud S, Machuca T, Mercier O, Waddell TK, Yasufuku K. Pierre AF, Darling GE, Cypel M, Rampersaud YR, Lewis SJ, Shepherd FA, Leighl NB, Cho JB, Bezak A, Keshavjee S, de Perrot M. Long-term outcome after resection of non-small cell lung cancer invading the thoracic inlet.. Ann Thorac Surg. 2014 Sep; (98(3)): 962-7.

Cretu D, Prassas I, Saraon P, Batruch I, Gandhi R, Diamandis EP, Chandran V. Identification of Psoriatic Arthritis Mediators in Synovial Fluid By Quantitative Mass Spectrometry. Clinic Proteomics 2014 Jul 1; 11(1): 27.

de Kleuver M, Lewis SJ, Germscheid NM, Kamper SJ, Alanay A, Berven SH, Cheung KM, Ito M, Lenke LG, Polly DW, Qiu Y, van Tulder M, Shaffrey C. Optimal surgical care for adolescent idiopathic scoliosis: an international consensus. European Spine Journal. 2014. AID: 10.1007/s00586-014-3356-1.

Dwyer T, Glover Takahashi S, Kennedy Hynes M, Herold J, Wasserstein D, Nousiainen M, Ferguson P, Wadey V, Murnaghan ML, Leroux T, Semple J, Hodges B, Ogilvie-Harris D. How to assess communication, professionalism, collaboration and the other intrinsic CanMEDS roles in orthopedic residents: use of an objective structured clinical examination (OSCE). Can J Surg. 2014 Aug; 57(4): 230-6.

Dwyer T, Petrera M, White LM, Chechik O, Wasserstein D, Chahal J, Veillette C, Ogilvie-Harris DJ, Theodoropoulos JS. Trans-subscapularis Portal Versus Low-Anterior Portal for Low Anchor Placement on the Inferior Glenoid Fossa: A Cadaveric Shoulder Study With Computed Tomographic Analysis. Arthroscopy. 2015 Feb; 31(2): 209-14.

Dwyer T, Whelan DB, Khoshbin A, Wasserstein D, Dold A, Chahal J, Nauth A, Murnaghan ML, Ogilvie-Harris DJ, Theodoropoulos JS. The sizing of hamstring grafts for anterior cruciate reconstruction: intra- and inter-observer reliability. Knee Surg Sports Traumatol Arthrosc. 2015 Apr 23; 23(4): 1197-200.

Dyck BA, Zywiel MG, Mahomed A, Gandhi R, Perruccio AV and Mahomed NN. Associations between patient expectations of joint arthroplasty surgery and pre- and post-operative clinical status. Expert Rev Med Devices. 2014 Jul;11(4):403-15.

Dzaja I, Syed KA. Knee Arthroplasty. In: Kapoor, Mahomed (eds), Concepts in Osteoarthritis. 2014 Nov.

Gandhi R, Kapoor M, Mahomed NN, Perruccio, AV. A comparison of obesity related adipokine concentrations in knee and shoulder arthritis patients. Obesity Research and Clinical Practice. 2015 Feb.

- Gandhi R, Perruccio AV. Obesity, Osteoarthrits, and Gender. Healthy Weight: The magazine of the Canadian Association of bariatric physicians and surgeons. Page 3. 2014 Sep.
- Gandhi R, Woo K, Zyweil M, Rampersaud R. Metabolic Syndome Increases the risk of prevalent spine osteoarthritis. Orthopaedic Surgery; 6: 23-27. 2014.
- Gandhi R, Zywiel 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. PMID: 25861476. AID: 10.1155/2015/327161 [doi].
- Gandhi R, Virtanene C, Takahashi M, Mahomed N, Perruccio A. Gene expression profiles of the subcutaneous fat and infrapatellar fatpad in individuals with early and endstage knee osteoarthritis: a cross-sectional analysis. Journal of Arthritis (special issue: "Arthritis & Pain"). 2015 Jun 24.
- Goldstein CL, Lewis SJ. Results of Surgical Treatment of Low Grade Adult Isthmic Spondylolisthesis. In: A.L Wollowick and S. Sarwahi (eds), Spondylolisthesis: Diagnosis, Non Surgical Management, and Surgical Techniques. 2015: 291-299.
- Hawryluk G, Spano S, Chew D, Wang S, Erwin M, Chamankhah M, Forgione N, Fehlings M. An Examination of the Mechanisms by Which Neural Precursors Augment Recovery Following Spinal Cord Injury: A Key Role for Remyelination. Cell Transplantation. 2014; 23:365-380.
- Karsli C, Stranzas S, Finnerty O, Holmes L, Lewis S. Bradycardia and hypotension during pediatric scoliosis surgery-hypovolemia or spinal shock? 2015 Jan 20. United States: BPG.
- Khan M, Ranawat A, Williams D, Gandhi R, Choudur H, Parasu N, Simunovic N, Ayeni OR. Relationship between the Alpha and Beta angle in diagnosing CAM type Femoroacetabular impingement on the Frog leg lateral Radiographs. Accepted/In Press. Knee Surgery Sports Traumatology and Arthroscopy. (KSSTA). 2014 Jul.
- Lansang E, Veljkovic A, Lau J. Nail and Skin Disorders of the Foot and Ankle. In: Lin S. (eds), Orthopaedic Knowledge Update: Foot and Ankle. 5. 2014: 265-271. United States: American Academy of Orthopaedic Surgeons.
- Latham W, Hausman C, Lau J. Hintegra Prosthesis: Design Issues and Implentation Techniques that lead to Revision Surgery. In: Haddad S. (eds), AAOS Mongraph Series 55: Total Ankle Arthroplasty. 1. 2015: 135-142. United States: American Academy of Orthopaedic Surgeons.
- Latham W, Alexander P, Lau J. Global Systems Available. In: DeOrio, J., Parekh, S.G. (eds), Total Ankle Replacement: An Operative Manual. 1st Edition. 2014: 5-16. Baltimore and Phildelphia, United States: Wolters Kluwer/Lippincott Williams & Wilkins.
- Lau J, Veljkovic A, Farrugia P. Ankle Osteoarthritis. In: M. Kapoor, N. Mahomed (eds), Osteoarthritis. 1. 2015: 93-111. Switzerland: Springer.
- Lau RL, Perruccio AV, Evans HM, Mahomed SR, Mahomed NN, Gandhi R. Stem cell therapy for the treatment of early stage avascular necrosis of the femoral head: a systematic review. BMC Musculoskelet Disord. 2014. PMID: 24886648. AID: 10.1186/1471-2474-15-156 [doi]. 2014 May 16;15:156.
- Leroux T, Wasserstein D, Dwyer T, Ogilvie-Harris DJ, Marks PH, Bach BR Jr, Townley JB, Mahomed N, Chahal J. The epidemiology of revision anterior cruciate ligament reconstruction in Ontario, Canada. Am J Sports Med. 2014 Nov; 42(11): 2666-72.
- Leroux T, Wasserstein D, Henry P, Khoshbin A, Dwyer T, Ogilvie-Harris D, Mahomed N, Veillette C. Rate of and Risk Factors for Reoperations After Open Reduction and Internal Fixation of Midshaft Clavicle Fractures: A Population-Based Study in Ontario, Canada. Journal of Bone and Joint Surgery. 2014 Jul; 96(13): 1119-1125.
- Lewis NDH, Keshen SGN, Lenke LG, Zywiel MG, Skaggs DL, Dear TE, Stranzas S, Lewis SJ. 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? Spine. 2015 Mar.
- Lewis SJ, Dear TE, Keshen S, Lewis NDH, Mehrkens A, Niazi AU. Tension Pneumothorax as a Complication of Inadvertent Pleural Tears During Posterior Spinal Surgery. Spine Deformity. 2014; 2: 316-321.
- Lewis SJ, Goldstein S, Bodrogi A, Dear TE, Keshen S, Lewis NDH, Magana SP. Comparison of Pedicle Subtraction and Smith-Petersen Osteotomies in Correcting Thoracic Kyphosis when Closed with a Central Hook and Rod Construct. Spine. 2014; 39(15): 1217-1224.
- Lewis SJ, Harris SA. The Use of Osteotomies for Rigid Spinal Deformities. In: Luiz Roberto Vialie, Kenneth M.C. Cheung, Lawrence G. Lenke (eds), AOSpine Master Series. 2015 Jun 1; Vol. 4. United States: AOSpine & Thieme.
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Rampersaud YR, Lewis SJ, Davey JR, Gandhi R, Mahomed NN. Comparative outcomes and cost-utility following surgical treatmentof focal lumbar spinal stenosis compared with osteoarthritis of the hip or knee: part 2—estimated lifetime incremental cost-utility ratios. The Spine Journal. 2014; 14: 244-254.

Rampersaud YR. Computed tomography and pedicle screws. J Neurosurg Spine. 2014 Sep; (21(3)): 317-8.

Shulman R, Zyweil, Gandhi R, Salonen D, Davey JR. Trunnionosis: The latest culprit in adverse reactions to metal debris following hip arthroplasty. Journal of skeletal radiology. 2014 Jul.

Simmonds AM, Rampersaud YR, Dvorak MF, Dea N, Melnyk AD, Fisher CG. Defining the inherent stability of degenerative spondylolisthesis: A systematic review. J Neurosurg Spine. 2015 May 15: 1-12.

Slade Shantz J.A, Veillette C.J.H. The application of wearable technology in surgery: ensuring the positive impact of the wearable revolution on surgical patients. Frontiers in Surgery. 2014 Sep 19; 1(39): 1-4.

Tosti R, Ilyas AM, Mellema JJ, Guitton TG, Ring D; Science of Variation Group. Interobserver variability in the treatment of little finger metacarpal neck fractures. J Hand Surg Am. 2014 Sep; 39(9): 1722-7.

Vasheghani F, Zhang Y, Li YH, Blati M, Fahmi H, Lussier B, Roughley P, Lagares D, Endisha H, Saffar B, Lajeunesse D, Marshall WK, Rampersaud YR, Mahomed NN, Gandhi R, Pelletier JP, Martel-Pelletier J, Kapoor M. PPARy deficiency results in severe, accelerated osteoarthritis associated with aberrant mTOR signalling in the articular cartilage. Ann Rheum Dis. 2015 Mar; 74(3): 569-78.

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Wolfstadt JI, Cole BJ, Ogilvie-Harris DJ, Viswanathan S, Chahal J. Current concepts: the role of mesenchymal stem cells in the management of knee osteoarthritis. Sports Health. 2015 Jan; 7(1): 38-44.

Zywiel MG, Hurley RT, Perruccio AV, Hancock-Howard RL, Coyte PC, Rampersaud YR. Health economic implications of perioperative delirium in older patients after surgery for a fragility hip fracture. J Bone Joint Surg Am. 2015 May 20; 20(97(10)): 829-36.

#### **Invited Visits**

Bell, Robert Stuart: Canadian Association of University Surgeons Symposium, Vancouver, British Columbia, Canada, 19 Sep 2014. Keynote Speaker: The Charles Tator Annual Lecture - Neurosurgery Ontario: A collaborative plan by surgeons, hospitals and Ministry of Health.

Davey, J. Roderick: Biomet, Rome, Unknown, Italy, 20 Sep 2014. Invited Speaker: International Hip Arthroplasty Meeting How I Solve Leg Length Problems.

Davey, J. Roderick: Biomet, Warsaw, Indiana, United States, 10 Jul 2014. Invited Speaker: International Revision Hip and Knee Surgical Workshop Arcos Modular Revision Hip system: design rationale and Surgical Technique Instructor Cadaver Surgery: Broach Body and PPS Distal Stem.

Davey, J. Roderick: Biomet, Warsaw, Indiana, United States, 14 Nov 2014. Invited Speaker: Brazil Knee Sports Medicine and Knee Reconstruction Continuum of Constraint in Revision Total Knee.

Davey, J. Roderick: International Hip Arthroplasty Meeting, Rome, Italy, 19 Sep 2014. Moderator and member of panel discussion: Patient Management in Total Hip Arthroplasty.

Davey, J. Roderick: Pacific Rim Orthopaedc Symposium, Sapporoo, Japan, 31 Jul - 2 Aug 2014. Invited Speaker: 1) Painful Total Hip Arthroplasty. 2) Bearing Options in Total Hip Arthroplasty. 3) Indications for Varus Valgus Constraint. 4) Direct Lateral Approach to the Hip. 5) Video Vignette: Total Knee with Valgus Deformity. 6) A Rare Case of Trunionosis: A Titanium Stem with a Cobalt chrome Head Showing High Levels of Cobalt and Chromium.

Davey, J. Roderick: The Canadian Arthroplasty Society, Toronto, Ontario, Canada, 27 Nov 2014. Presenter: The routine use of topical tranexamic acid in total hip arthroplasty provides clinical and economic benefits without increasing the incidence of venous thromboembolic events.

Lau, Johnny: Canadian Association of Wound Care - Canadian Association of Enterostomal Therapy 2014, Toronto, Ontario, Canada, 31 Oct 2014. Invited Speaker: 1) Charcot Foot a Clinical Diagnosis. 2) Debate Around Antibiotics and Conservative Foot Surgery in the Management of Osteomyelitis.

Lau, Johnny: Canadian Orthopedic Foot & Ankle Society, Whistler, British Columbia, Canada, 31 Jan 2015. Invited Speaker: Round Table Seminar Leader: Ankle OCD.

Lau, Johnny: The 3rd Emirates International Orthopaedic Congress, Dubai, United Arab Emirates, 30 Apr 2015. Keynote Speaker: Total Ankle Arthroplasty: Primary and Revision.

Lau, Johnny: Pasqua Hospital, Zimmer Institute, Saskatoon, Saskatchewan, Canada, 11 Jul 2014. Invited Lecturer: Zimmer Total Ankle Arthroplasty.

Lewis, Stephen: 15th Brazilian Spine Meeting, Brazil, 18-19 Apr 2015. Invited Speaker: 1) Adult Deformity: What is the role of Ponte, PSO and VCR for Adult Degenerative Deformity? 2) Adult Deformity: Clinical and Radiographic Evaluation: SRS-Schwab Classification. 3) Congenital Scoliosis: When Does the TRansition from Observation to Surgical Treatment Occur? 4) Adolescent Idiopathic Scoliosis: Classification and Fusion Level Selection of AIS.

Lewis, Stephen: 3rd Emirates International Orthopaedic Congress, Dubayy [Dubai], United Arab Emirates, 30 Apr - 2 May 2015. Invited Speaker: 1) Spinal Deformity Management: Adolescent Idiopathic: Classification and Decision



Making. 2) Osteotomy Technique: Step by step- video demonstration. 3) High Grade Spondylolisthesis: Case & Video Demonstration. 4) Complication in Spine Surgery: How to Identify and Manage. 5) Spinal Instrumentations: BAsic Concept and Biomechanics. 6) Debates in Spinal Surgery: ACDF is the Gold Standard. 7) Moderator: Debate in Spine Surgery: Recurrent Lumbar Disc.

Lewis, Stephen: Anchorage, Alaska, United States, 10 Sep 2014. Presenter: 1) Tension Pneumothorax as a Complication of Inadvertent Pleural Tears during Posterior Spinal Surgery. 2) Modofied Hemivertebrectomy for Persistent High Left Shoulder following Surgery for Double Thoracic Scoliosis.

Lewis, Stephen: AO Spine Deformity Course, Nanjing, China, Sep 2014. Invited Speaker: 1) Osteotomies for severe Spine Deformity. 2) Pelvic Obliquity: Clinical Evaluation and treatment. 3) Pediatric Pelvic Incedence and Lumbar Lordosis Mismatch.

Lewis, Stephen: Canadian Association of Neurophysiological Monitoring, Toronto, Ontario, Canada, 20 Sep 2014. Invited Speaker: Spinal Deformity Surgery: A Surgeon's Perspective.

Lewis, Stephen: Chilean Orthopaedic Society, Chile, Oct 2014. Invited Speaker: Adult Osteotomy Planning, Adolescent Idiopathic Scoliosis: State of the Art, Neuromonitoring in Spinal Deformity, Osteotomies for Severe Spinal Deformities, Tips and Pearls in AIS Surgery, Posterior Techniques in AIS surgery.

Lewis, Stephen: IMAST, Valencia, Spain, Jul 2014. Presenter: Posterior Column Reconstruction Improves Fusion Rates at the Level of the Osteotomy in Three Column Posterior Based Osteotomies, Comparison of Pedicle Subtraction and Smith Petersen Osteotomies in Correcting Thoracic Kyphosis when Closed with a Central Hook and Rod Construct.

Lewis, Stephen: Medtronic, International Symposium and Cadaveric Workshop, Bangkok, Thailand, 24-25 Jan 2015.

1) Invited Speaker: Review of Osteotomies Advances in Spinal Deformity. 2) Facilitator: Complex Pediatric Deformity: Congenital deformity with global curve Advances in Spinal Deformity. 3) Facilitator: Complex Adult Deformity: Case of Deep Wound Infection Advances in Spinal Deformity. 4) Facilitator: Complex Pediatric Deformity: Neuromuscular Scoliosis with Pelvic Obliquity Advances in Spinal Deformity. 5) Facilitator: Complex Pediatric Deformity: Large Curve in Patient less than 5 years old Advances in Spinal Deformity. 6) Chair: Fixation Techniques: Thoracic Spine to Sacrum Advances in Spinal Deformity. 7) Facilitator: Decision Making in Adult Deformity Surgery: Choosing UIV: Indication to stop at L5 vs S1 Advances in Spinal Deformity. 8) Facilitator: Determining Fusion Levels in Adolescent Idiopathic Scoliosis: Classification Advances in Spinal Deformity.

Lewis, Stephen: North American Spine Society, San Francisco, California, United States, Nov 2014. Presenter: Minimally Invasive Surgical Management of Degenerative Lumbar Scoliosis: The good the Bad and the Ugly.

Lewis, Stephen: SRS 49th Annual Meeting & Course, Alaska, United States, Sep 2014. Presenter: Tension Pneumothorax as a Complication of Inadvertent Pleural Tears During Spinal Surgery, Modified T4 Hemivertebrectomy for Persistent High Left Shoulder Following Surgery for Double Thoracic Scoliosis.

Lewis, Stephen: Stryker Spine, Stryker Spine Deformity Symposium, California, United States, 13 Dec 2014. Presenter: 1) Classification of Adult and Pediatric deformities with XIA3 and XIA 4.5. 2) Defining Scoliosis in the Pediatric Patient. 3) Deformity Correction with an MIS Approach with ES2. 4) Why do I operate on Young Adults?

Rampersaud, Yoga Raja: 15th Annual Brazilian Spine Meeting, Belo Horizonte, Not Required, Brazil, 21 Apr 2015. Keynote Speaker: 1) Spinal Stenosis - MIS Approaches to Treating Spinal Stenosis. 2) Adult Spinal Deformity - Evidence for MIS Surgery.

Rampersaud, Yoga Raja: IMAST 21st International Meeting on Advanced Spine Techniques, Valencia, Spain, 18 Jul 2014. 1) Moderator: SI Joint Arthritis is a Common Entity Requiring Surgical Intervention. 2) Moderator: Transpoas versus MIS TLIF: Which is the Best Technique for Degenerative Spondylolisthesis. 3) Invited Speaker: Techniques to Maximize Decompression through an MIS Approach. 4) Invited Speaker: MIS Deformity Roundtable Discussion.

Rampersaud, Yoga Raja: McGill Centre of Expertise in Chronic Pain, Montreal, Quebec, Canada, 8 May 2015. Invited Speaker: Evaluation of the provincial model to address the gaps in care of low back pain: Was it successful? What were the barriers and facilitators to implementation? How can it serve as a model for the larger healthcare system?

Rampersaud, Yoga Raja: Neurosurgical Society of Australasia's Annual Scientific Meeting 2014, Perth, South Australia, Australia, 3-4 Oct 2014. Keynote Speaker: 1) MIS vs Open Surgery – A Systematic Review of Comparative Studies for Lumbar TLIF/PLIF. 2) Management of Primary Tumours of the Cervical Spine: Intra-lesional vs En-bloc Resection.

Rampersaud, Yoga Raja: North American Spine Society (NASS), San Francisco, California, United States, 12 Nov 2014. Presenter: Predictors of Degenerative Spondylolisthesis and Loading Translation in Surgical Lumbar Spinal Stenosis Patients.

Rampersaud, Yoga Raja: Society for Minimally invasive Spine Surgery, Miami, Florida, United States, 19-21 Sep 2014.

1) Invited Speaker: How applying MISS can positively affect value – emphasis on patient outcome / cost. 2) Invited Speaker: Comparative Clinical And Economic Outcomes Of Minimally Invasive Surgery For Posterior Lumbar Fusion: A Systematic Review And Meta-Analysis. 3) Moderator: Patients Undergoing Revision Surgery. 4) Moderator: Trauma / Tumor / Revision. 5) Invited Speaker: Minimally Invasive Decompression in Focal Lumbar Spinal Stenosis With or Without Stable Spondylolisthesis - Comparative Outcomes and Re-Operation Rates at 2 Years and Beyond.

Veillette, Christian: American Academy of Orthopaedic Surgery - Electronic Skills Pavillion, Las Vegas, Nevada, United States, Mar 2015. Presenter: Wearable Technologies in Orthopaedic Surgery.

#### **Research and Investigations**

Arthritis Health System Innovation Change Lab. Toronto General & Western Hospital Foundation, Arthritis Program. Veillette CIH, Rampersaud, YR. (\$2,000,000.00 CAD, Oct 2014 - present).



Femoroacetabular Impingement Randomised Controlled Trial (FIRST). Canadian Institutes of Health Research Operating Grant (CIHR). Ayeni F, Bhandari M, Bedi A, Gandhi R, Jorgensen U, Joukainen A, Musahl V, Naudie D, Seppanen M, Sihvonen R, Slobogean G, Thabane L, Whelan D, Williams D, Wong I. (\$471,740.84 CAD, Oct 2014 - Oct 2017).

Health Services Evaluation of a Comprehensive Multidisciplinary Delirium Care Pathway in Hip Fracture Patients. *Academic Health Sciences Centres (AHSCs) (UK), Alternate Funding Plan Innovation Fund (UK). Rampersaud YR.* (\$123,000.00 CAD, Mar 2014 - Mar 2015). Funded.

Inter-professional Spine Assessment and Education Clinic (ISAEC) Pilot Extension. Ontario Ministry of Health and Long-Term Care. Rampersaud YR. (\$1,100,000.00 CAD, May 2014 - Feb 2015).

Longitudinal Evaluation in the Arthritis Program - Osteoarthritis Study (LEAP - OA): Surgical Prognostic Factors. *University Health Network Arthritis Program. Rampersaud YR.* (\$5,000,000.00 CAD, Jan 2014 - Jan 2019).

Mechanistic Determination of Notochordal Cell-Induced Anti-Apoptotic Signaling in Human Nucleus Pulposus Cells. Erwin WM, Mehrkens A, Fehlings MG. (\$49,992.50 USD, Jul 2014 - Jun 2015).

Mesenchymal Stromal Cells in the treatment of knee osteoarthritis. *University Health Network Arthritis Program*. Chahal J, Viswanathan S, Ogilvie-Harris D, Mohamed N, Marshall W. (\$500,000.00 CAD, 2015).

Motoneuron Differentiation of Nucleus Pulposus Progenitor/Stem Cells: A Possible Avenue for the Treatment of ALS? *Erwin WM, Zinman L, Robinson J.* (\$120,000.00 CAD, Jul 2014 - Jun 2015).

Multiple Painful Joints in Osteoarthritis and the Relationship with Comorbidity. *Physician's Services Incorporated Foundation. Gandhi R, Perrucio AV, Davis A, Badley EM, Chandran V, Jaglal S, Rampersaud YR.* (\$65,409.00 CAD, Jun 2014 - May 2015).

Notochordal Cell-Secreted Factor/Disc-Derived Stem Cell Based Rescue of the Intervertebral Disc/Disc Derived Stem Cells for the Treatment of Degenerative Disc Disease and Related Disorders. *Erwin WM*. (\$1,000,000.00 USD, Jul 2014 - Jun 2015).

Patient-centred interprofessional shared care model for low back pain management. Canadian Institutes of Health Research (CIHR), Knowledge Synthesis. Rampersaud YR. (\$100,000.00 CAD, Mar 2014 - Feb 2015).

Reliability and Validity of a Generic Error Rating Framework for Arthroscopic Surgery. Arthroscopy Association of North America. Veillette C, Dedy N, Grantcharov T. (\$5,500.00 USD, Jun 2014 - Jul 2015).

Sex specific associations between inflammatory mediators and pain in knee OA. A Pilot Investigation. *Arthritis Program Start-up Grants. Gandhi R, Perruccio AV, Chandran V, Venkatraghavan L.* (\$25,000.00 CAD, Jun 2014 - Jun 2015).

The Arthritis Data Integration Platform (ADIP): Identifying and mapping genomic markers of arthritis. *McLaughlin Centre*. *Veillette CJH*, *Jurisica I*, *Faulkner S*. (\$200,000.00 CAD, Dec 2014 - present).

The Quality Initiative data facilitator: Creating a practical bridge between administrative and clinical data for improving quality initiatives. AHSC AFP Innovation Fund. Veillette, CJH, Rampersaud YR, Jackson T, Mahomed N, Henning K, D'Agostino-Rose D. (\$186,460.00 CAD, Nov 2014 - present).

To determine the specific in vivo role of ULK1 in the pathophysiology of Osteoarthritis. *Arthritis Program Start-up Program. Gandhi R, Kapoor M, Haroon NL.* (Apr 2015 - Mar 2016).

Validation of a Screening and Referral Strategy for a Primary Care Low-Back Pain Inter-Professional Model of Care for Patients with Inflammatory Back Pain (IBP). *Arthritis Society (The). Rampersaud YR.* (\$301,400.00 CAD, Oct 2014 - Sep 2017).

Wearable technology in precision medicine: developing non-invasive predictive models in degenerative musculoskeletal disease. *Toronto General & Western Hospital Foundation, Arthritis Program. Veillette CJH.* (\$100,000.00 CAD, Jul 2014 - present).

## **Honours and Awards**

Bell, Robert Stuart: Dr. Robert S. Bell Chair in Health Research, Toronto General & Western Hospital Foundation, Toronto, Ontario, Canada. May 2014 - present.

Gandhi, Rajiv: ABC Traveling Fellowship, Canadian Orthopaedic Association. Apr 2015

Lewis, Stephen: Best Paper Award, Global Spine Congress. Risk Factors for Non-Neurological Complications in Adult Spinal Deformity Surgery: An International, Large-Scale Prospective Multi-Center Study. Jul 2014 - Jun 2015.

Lewis, Stephen: Top 18 Best North American Spine Surgeon: Sep 2014.



# Division of Plastic and Reconstructive Surgery

Dr. D. Anastakis	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

#### **Publications**

Baltzer H, Novak CB, McCabe SJ. A Scoping Review of DASH Score Outcomes for Hand and Wrist Condition. Journal of Hand Surgery Am. 2014 Dec; 39(12): 2472-2480.

Borschel GH, Hadlock T, Novak CB, Snyder-Warwick AK. Facial Nerve Injury. In: Mackinnon SE (eds), Nerve Surgery. 2015: 481-503. New York: Thieme Medical Publishers.

Causarano N, Platt J, Baxter NN, Bagher S, Jones JM, Metcalfe KA, Hofer SO, O'Neill AC, Cheng T, Starenkyj E, Zhong T. Pre-consultation educational group intervention to improve shared decision-making for postmastectomy breast reconstruction: a pilot randomized controlled trial. Support Care Cancer. 2015 May 1; 23(5): 1365-75.

Fox IK, Davidge KM, Novak CB, Hoben G, Kahn LC, Juknis N, Ruvinskaya R, Mackinnon SE. Use of Peripheral Nerve Transfers in Tetraplegia: Case Series and Preliminary Results. HAND. 2015 Mar; 10(1): 60-67.

Garrod K, LaJoie S, McCabe S, Dellon L. Prevention of Ulceration and Amputation, by Neurolysis of Peripheral Nerves in Diabetics with Neuropathy and Nerve Compresson: Decsion-tree Utility Analysis. Diabetes and Metabolism. 2014; 5(1).

Haykal S, Salna M, Waddell TK, Hofer SO. Advances in tracheal reconstruction. Plast Reconstr Surg Glob Open. 2014 Jul 1; 2(7): e178. PMID: 25426361. AID: 10.1097/GOX.000000000000097.

Haykal S, Salna M, Zhou Y, Marcus P, Fatehi M, Frost G, Machuca T, Hofer SOP, Waddell TK. Double-chamber rotating bioreactor for dynamic perfusion cell seeding of large-segment tracheal allografts: comparison to conventional static methods. Tissue Eng Part C Methods. 2014 Aug 1; 20(8): 681-92.

Knox ADC, Goswami R, Anastakis DJ, Davis KD. Cortical Plasticity after Peripheral Nerve Injury. In: R. Shane Tubbs, Elias Rizk, Mohammadali Shoja, Marios Loukas, Robert Spinner (eds), Sunderland's Nerves and Nerve Injuries. 3e. 2015 Mar 15: pp 1055-1071. United States: Elsevier.

Korus LJ, Cypel T, Zhong T, Wu AW. Patient-reported outcome measures in reconstructive breast surgery: is there a role for generic measures? Plast Reconstr Surg. 2015 Mar 1; 135(3): 479e-490e. PMID: 25719712. AID: 10.1097/PRS.000000000000954.

Maass SW, Bagher S, Hofer SO, Baxter NN, Zhong T. Systematic Review: Aesthetic Assessment of Breast Reconstruction Outcomes by Healthcare Professionals. Ann Surg Oncol. 2015 Feb 18. PMID: 25691279. AID: 10.1245/s10434-015-4434-2.

Mah E, Novak CB, Zhong T, Hofer SOP. Skull Base Reconstruction. In: Boyd, John Brian, Jones, Neil Ford (eds), Operative Microsurgery. 2015 Jan; Vol. Section 2:(34) Head and Neck: 399-406.

Metcalfe KA, Zhong T, Narod SA, Quan ML, Holloway C, Hofer S, Bagher S, Semple J. A prospective study of mastectomy patients with and without delayed breast reconstruction: Long-term psychosocial functioning in the breast cancer survivorship period. J Surg Oncol. 2015 Mar 1; 111(3): 258-64.

Novak CB, McCabe SJ. Prevalence of Cold Sensitivity in Patients with Hand Pathology. HAND. 2015 Jun; 10(2): 173-176.

Novak CB, von der Heyde RL. Rehabilitation of the Upper Extremity Following Nerve and Tendon Reconstruction: When and How. Seminars in Plastic Surgery. 2015 Feb; 29(1): 73-80.

Novak CB, Williams MM, Conaty K. Evaluation of the Patient Specific Functional Scale in Hand Fractures and Dislocations. HAND. 2015 Mar; 10(1): 85-87.

Novak CB. Evaluation of the Patient with Nerve Injury or Nerve Compression. In: Mackinnon SE (eds), Nerve Surgery. 2015: 41-58. New York: Thieme Medical Publishers.

O'Neill AC, Ngan NC, Platt J, Mahomed A, Zhong T, Hofer SO. A decision-making algorithm for recipient vein selection in bipedicle deep inferior epigastric artery perforator flap autologous breast reconstruction. J Plast Reconstr Aesthet Surg. 2014 Aug 1; 67(8): 1089-93.

Panchapakesan V, Zhong T, Forrest CR, Pusic AL, Thoma A. Psychometrics: Essential for Valid, Reliable, and Responsive Measurement in the Development of Patient-reported Outcome Instruments in Plastic Surgery. Plast Reconstr Surg Glob Open. 2014 Dec 1; 2(12): e280. PMID: 25587514. AID: 10.1097/GOX.00000000000000197.



Platt J, Zhong T, Moineddin R, Booth GL, Easson 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 Apr 21. PMID: 25896900. AID: 10.1007/s00268-015-3060-2.

Roberts A, Zhong T, Baxter N, et al. ASO-2015-04-0690.R1 Once is Rarely Enough: A Population-based Study of Re-operations after Post-Mastectomy Breast Reconstruction. Annals of Surg Oncology. 2015 Jun 1.

Song D, Collins D, Hazen A, Pusic A, Zhong T, Lennox P, Van Laeken N, Slater K, Papsdorf M, Mehrara B, Macadam S. Autologous Breast Reconstruction In Women Over vs. Under 65 Years of Age: A Multi-Centre Analysis. Annals of Plastic Surgery. 2014 Dec 1. AID: SAP-D-14-00830.

Townley WA, Baluch N, Bagher S, Maass SW, O'Neill A, Zhong T, Hofer SO. A single pre-operative antibiotic dose is as effective as continued antibiotic prophylaxis in implant-based breast reconstruction: A matched cohort study. J Plast Reconstr Aesthet Surg. 2015 May 1; 68(5): 673-8.

Townley WA, Hofer SOP. Abdominal Wall Reconstruction. In: Ross D. Farhadieh, Neil W. Bulstrode, Sabrina Cugno (eds), Plastic and Reconstructive Surgery: Approaches and Techniques. 2015: 564-574. Wiley Blackwell.

Weyand B, Israelowitz M, Kramer JM, Bodmer C, Noehre M, Strauss S, Schmaelzlin E, Gille C, von Schroeder HP, Reimers K, Vogt PM. Three dimensional modelling inside a differential pressure laminar flow bioreactor filled with porous media. BioMed Research International. 2015.

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; Volume 4.1, 2015 DOI: 10.1089/biores.2015.0004.

Wojtkiewicz DM, Saunders, J, Domeshek L, Novak C.B., Kaskutas, V, Mackinnon, SE. Social Impact of Peripheral Nerve Injuries. HAND. 2015 Jun; 10(2): 161-167.

Yla-Kotola T, Goldstein DP, Hofer SO, Patel SN, Brown DH, Irish JC, Gullane PJ, Gilbert R. Facial nerve reconstruction and facial disfigurement after radical parotidectomy. J Reconstr Microsurg. 2015 May 1; 31(4): 313-8.

Zhong T, Fernandes KA, Saskin R, Sutradhar R, Platt J, Beber BA, Novak CB, McCready DR, Hofer SOP, Irish JC, Baxter NN. Barriers to immediate breast reconstruction in the Canadian universal health care system. J Clin Oncol. 2014 Jul 10; 32(20): 2133-41.

Zhong T, Novak CB, Hofer SO. Reply: Transversus Abdominis Plane Block Reduces Morphine Consumption in the Early Postoperative Period following Microsurgical Abdominal Tissue Breast Reconstruction: A Double-Blind, Placebo-Controlled, Randomized Trial. Plast Reconstr Surg. 2015 May 1; 135(5): 920e-1e.

Zhong T, Ojha M, Bagher S, Butler K, Srinivas C, McCluskey SA, Clarke H, O'Neill AC, Novak CB, Hofer SO. Transversus abdominis plane block reduces morphine consumption in the early postoperative period following microsurgical abdominal tissue breast reconstruction: a double-blind, placebo-controlled, randomized trial. Plast Reconstr Surg. 2014 Nov 1; 134(5): 870-8.

## **Invited Visits**

Anastakis, Dimitri: American Society for Peripheral Nerve, Paradise Island, Bahamas, 25 Jan 2015. Invited Speaker: DJ Anastakis and MJA Malessy How Nerve Injury Changes the CNS - Describe the CNS changes that occur following PNI - Describe the CNS changes that occur in patients with PNI and chronic neurogenic pain - List potential patient specific cofactors that may contribute to chronic neurogenic pain following PNI.

Anastakis, Dimitri: CCME, Vancouver, British Columbia, Canada, 25 Apr 2015. Presenter: CACME CPD Standards - Achieving Exemplary Compliance Highlighted how UofT achieved Exemplary Compliance for Standard 4.4 Standard 4.4: The CME/CPD office has and manages sufficient academic and administrative human resources to fulfill its CME/CPD mission and objectives.

Anastakis, Dimitri: Department of Surgery & Division of Medical Education, Dalhousie University, Halifax, Nova Scotia, Canada, 14 Nov 2014. Invited Speaker: Building a Provincial Network for Health Professions Simulation - Lessons Learned.

Hofer, Stefan: 1st London Breast Meeting, London, City of, United Kingdom, 4-5 Sep 2014. 1) Invited Lecturer: Tips, tricks and pearls in reconstruction - How to mark a DIEP flap. 2) Session chair: Breast conservation failure: completion mastectomy and reconstruction or partial defect reconstruction? 3) . Invited Lecturer: Allied therapy in breast reconstruction - Flap Monitoring. 4) Session chair: Risk reducing mastectomy (RRM) and reconstruction.

Hofer, Stefan: 3rd International Breast Symposium, Dusseldorf, Germany, 18 Apr 2015. Invited Lecturer: Reconstruction 1 - Video Session: Harvesting Autologous Donor Sites -- S-GAP / I-GAP flap.

Hofer, Stefan: American Society for Reconstructive Microsurgery, Atlantis, Bahamas, 25-26 Jan 2015. 1) Session organizing chair + Presenter: Sarcoma 101: Achieving excellence in diagnosis and outcome. 2) Session organizing chair + Presenter: Perioperative pain control. 3) Invited Lecturer: Perforator flaps in sarcoma reconstruction. 4) Invited Lecturer: Scalp reconstruction.

Hofer, Stefan: British Association of Plastic Reconstructive and Aesthetic Winter Scientific Meeting, London, City of, United Kingdom, 27 Nov 2014. Invited Lecturer: JPRAS Lecture: Microsurgery: From developing a skill to building a practice.

Hofer, Stefan: Canadian Society of Plastic Surgeons - 69th Annual Meeting, Victoria, British Columbia, Canada, 6 Jun 2015. Invited Lecturer: Canadian Expert: Nasal Reconstruction: key points to maximizing outcomes.

Hofer, Stefan: EURAPS Research Council Meeting, Edinburgh, City of, United Kingdom, 28 May 2015. Invited Speaker: Establishing High Quality Academic Output from a Microsurgical Practise & Where Future Research Should be



Focused Symposium: Microsurgery as a Model for Implementing Tissue Engineering into Clinical Practice.

Hofer, Stefan: European Society of Plastic and Aesthetic Surgery Meeting, Edinburgh, City of, United Kingdom, 7-10 Jul 2014. 1) Session Chair: Basic Science and Tissue Engineering. 2) Invited Lecturer: How to publish your paper in a scientific medical journal.

Novak, Christine B: American Association for Hand Surgery, Nassau, New Providence Island, Bahamas, 21-23 Jan 2015. 1) Invited Speaker: Nerve Transfer vs. Tendon Transfer: What to Use When. 2) Chair: Distal Nerve Transfers: Ulnar, Radial & Median Nerve.

Novak, Christine B: International Congress of Surgery and Therapy of the Hand & Guatemala Healing Hands Foundation, Guatemala City, Guatemala, 17 Apr 2015. Invited Speaker: Nerve Graft - Then and Now.

Novak, Christine B: International Spinal Cord Society & American Spinal Cord Association Joint Scientific Meeting, Montreal, Quebec, Canada, 14 May 2015. Invited Speaker: Upper Extremity Reconstruction Options in Spinal Cord Injury: Rehabilitation after Motor Nerve Transfer & Measuring Outcome.

Novak, Christine B: MacHAND Grand Rounds, McMaster University, Hamilton, Ontario, Canada, 27 May 2015. Invited Speaker: Recovery Following Nerve Repair: Rehabilitation Considerations.

Novak, Christine B: Selected Topics in Hand Therapy, Columbia University, New York, New York, United States, 8 Mar 2015. Invited Speaker: 1) Guatemala Healing Hands Experience. 2) Cubital Tunnel Syndrome. 3) Am I Better? Patient Reported Outcomes.

Zhong, Toni: American Society for Reconstructive Microsurgery, Atlantis, Paradise Island, Bahamas, 26 Jan 2015. Break out Panel Moderator: 1) Perioperative Pain Control. 2) Flap Choice and Outcome in Breast Reconstruction: Evaluation with the Breast Q and What Really Matters to Patients?

Zhong, Toni: Annual Breast Educational Dinner. Markham-Stouffville Hospital/ Central LHIN, Toronto, Ontario, Canada, 25 Sep 2014. Invited Speaker: State of Breast Reconstruction in Ontario: Where we have been, where we are now, and where we are headed?

# **Research and Investigations**

Botulinum Toxin Type A for Cold Sensitivity after Hand Trauma. Plastic Surgery Foundation, PSF/AAHS. Novak C, McCabe SJ, Ahmad J. (\$9,980.00 USD, Oct 2014 - Oct 2015).

Cold-Induced Pain and Disability Following Upper Extremity Trauma: Underlying Mechanisms and Interventions. Canadian Institutes of Health Research (CIHR). Novak C. (CAD, Jul 2014 - Jun 2015).

Distal Radius Fracture Care in the Province of Ontario: Factors Impacting Management. *Physicians Services Incorporated Foundation (The) (PSI). Armstrong K, Baxter N, McCabe S, Zhong T, Von Schroeder H.* (\$18,500.00 CAD, Apr 2015).

Nipple Delay Prior to Nipple Sparing Mastectomy: A Pilot RCT. *Plastic Surgery Foundation (PSF)*. *Platt J, Zhong T, Cil T.* (\$10,000.00 USD, Jul 2014 - Jun 2015).

Using a Novel Quality Metric Approach to Examine the Healthcare Utilization of Post- Mastectomy Breast Reconstruction: A Population-based Study. *Physicians Services Inc. Foundation. Zhong T, Roberts A, Baxter N.* (\$74,000.00 CAD, Sep 2014 - Aug 2015).

### **Honours and Awards**

McCabe, Steven J: Travelling Professor in Plastic/Hand Surgery, American Society for Surgery of the Hand. Dept of Surgery, Faculty of Medicine. 2014 - 2015.

McCabe, Steven J: William K Lindsay Faculty Research Mentor Award, University of Toronto, Division of Plastic Surgery. Dept of Surgery, Faculty of Medicine. 2014.

Zhong, Toni: The Wightman-Berris Academy Individual Teaching Excellence Awared in Postgraduate Education, University Health Network, Plastic Surgery, Dept of Surgery, Faculty of Medicine, Canada. 2014-2015.

# Division of Thoracic Surgery

Dr. M. Cypel Assistant Professor

Dr. G.E. Darling Professor

Dr. M. de Perrot Associate Professor

Dr. R.M. Gorczynski Professor Dr. S. Keshavjee Professor Dr. M. Liu Professor

Dr. P. Pierre Associate Professor
Dr. T.K. Waddell Professor (Division Head)
Dr. K. Yasufuku Associate Professor



### **Publications**

Anayama T, Qiu J, Chan H, Nakajima T, Weersink R, Daly M, McConnell J, Waddell T, Keshavjee S, Jaffray D, Irish JC, Hirohashi K, Wada H, Orihashi K, Yasufuku K. Localization of pulmonary nodules using navigation bronchoscope and a near-infrared fluorescence thoracoscope. Ann Thorac Surg. 2015 Jan; 2015 Jan; 99(1): 224-30.

Anraku M, Keshavjee S. Lung Cancer – Surgical Treatment. In: 2014. In: Sabiston & Spencer's Surgery of the Chest. Elsevier Science, Philadelphia, Pennsylvania, 2014.

Barnett C, Katzberg H, Keshavjee S, Bril V. Thymectomy for non-thymomatous myasthenia gravis: a propensity score matched study. Orphanet J Rare Dis. 2014 Dec 24. Dec 24;9(1):2.

Bessonneau V, Bojko B, Azad A, Keshavjee S, Azad S, Pawliszyn J. Determination of bronchoalveolar lavage bile acids by solid phase microextraction liquid chromatography-tandem mass spectrometry in combination with metabolite profiling: Comparison with enzymatic assay. J Chromatogr A. 2014 Sep.

Blydt-Hansen T, Boyarsky B, Chow E, Cockfield S, Cole E, Cypel M, Gill J, Goldberg A, Goulet M, Hartell D, Humar A, Husain S, Keshavjee S, Kiberd B, Kim J, Knoll G, Kramer A, Kucirka L, Kumar D, Kutsogiannis J, Lien D, Nagendran J, Nickerson P, Paraskevas S, Renner E, Segev D, Singer L, Trpkovski J, West L, Wright L, Young K. Guidance on the use of increased infectious risk donors for organ transplantation. Transplantation. 2014 Aug 27. 98(4):365-9.

Brouwers MC. Makarski J. Garcia K. Akram S. Darling GE. Ellis PM. Evans WK. Giacomini M. Martelli-Reid L. Ung YC. A mixed methods approach to understand variation in lung cancer practice and the role of guidelines. Implementation Science. 2014; 9(1): 36.

Chen Z, Yu K, Gorczynki RM. Over-expression of CD200 protects mice from dextran sodium sulfate induced colitis Gut. Gastroenterology. 2015 Jan.

Collaud S, Fadel E, Schirren J, Yokomise H, Bolukbas S, Dartevelle 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 Mar.

Collaud S, Machuca T, Mercier O, Waddell TK, Yasufuku K, Pierre AF, Darling GE, Cypel M, Rampersaud YR, Lewis SJ, Shepherd FA, Leighl NB, Cho JB, Bezjak A, Keshavjee S, de Perrot M. Long-term outcome after resection of non-small cell lung cancer invading the thoracic inlet. Ann Thorac Surg. 2014 Sep 1; 98(3): 962-7.

Cressman S, Lam S, Tammemagi MC, Evans WK, Leighl NB, Regier DA, Bolbocean C, Shepherd FA, Tsao MS, Manos D, Liu G, Atkar-Khattra S, Cromwell I, Johnson MR, Mayo JR, McWilliams A, Couture C, English JC, Goffin J, Hwang DM, Puksa S, Roberts H, Tremblay A, MacEachern P, Burrowes P, Bhatia R, Finley RJ, Goss GD, Nicholas G, Seely JM, Sekhon HS, Yee J, Amjadi K, Cutz JC, Ionescu DN, Yasufuku K, Martel S, Soghrati K, Sin DD, Tan WC, Urbanski S, Xu Z, Peacock SJ. On behalf of the Pan-Canadian Lung Cancer Early Detection Study Team. Resource Utilization and Costs during the Initial Years of Lung Cancer Screening with Computed Tomography in Canada. J Thorac Oncol. 2014 Aug 7; 2014 Oct; 9(10):: 1449-58.

Cypel M, Fan E. Lung injury after abdominal and thoracic surgery. Lancet Respir Med. 2014 Dec 1; 2(12): 949-50.

Cypel M, Keshavjee S. Extending the donor pool: rehabilitation of poor organs. Thorac Surg Clin. 2015 Jan 1; 25(1): 27.33

Czarnecka K, Yasufuku K. Endobronchial Ultrasound-guided Transbronchial Needle Aspiration for Staging Patients with Lung Cancer with Clinical N0 Disease. Ann Am Thorac Soc. 2015 Mar; 12(3): 297-9.

Czarnecka K, Yasufuku K. The role of endobronchial ultrasound/esophageal ultrasound for evaluation of the mediastinum in lung cancer. Expert Rev Respir Med. 2014 Dec; 8(6): 763-76.

Czarnecka-Kujawa K, Yasufuku K. Molecular alterations in non-small-cell lung cancer: Perspective for targeted therapy and specimen management for the bronchoscopist. Respirology. 2014 Nov; 19(8): 1117-25.

Darling G, Li F, Patsios D, Masey C, Wallis A, 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. European Journal of Cardio-Thoracic Surgery. 2015 Jan 6; 6;doi: 10.1093/ejcts/ezu504.

Darling G. Malthaner R. Dickie J. McKnight L. Nhan C. Hunter A. McLeod RS. Lung Cancer Surgery Expert Panel. Quality indicators for non-small cell lung cancer operations with use of a modified delphi consensus process. Annals of Thoracic Surgery. 2014 Jul; 98(1): 183-90.

Darling GE, Rami-Porta R, Yasufuku K. Preoperative and Intraoperative Invasive Staging of the Mediastinum. In: Pass HI, Ball D, Scagliotti GV (eds), The IASLC Multidisciplinary Approach to Thoracic Oncology. 2015 Mar: 345-360.

de Perrot M, Collaud S, Yasufuku K. Transsternal Transpericardial Carinal Resection. In: Kuzdzat J (Ed) (eds), ESTS Textbook of Thoracic Surgery. 2014: 961-968. Cracow, Poland: Medycyna Prakyczna.

Derouet, Mathieu Francois, Liu, G, Darling GE. MiR-145 Expression Accelerates Esophageal Adenocarcinoma Progression by Enhancing Cell Invasion and Anoikis Resistance. PLOS One. 2014 Dec 31; DOI: 10.1371/journal. pone.0115589: Online only.

Dobdiba L, Teichman J, Fleet A, Eng L, Darling GE, Tsao M, Der S, Bristow R, Liu G. Appropriateness of Using Patient-Derived Xenograft Models for Pharmacologic Evaluation of Novel Therapies for Esophageal/Gastro-Esophageal Junction Cancers. PLOS ONE. 2015 Mar 3.

Dos Santos PR, Iskender I, Machuca T, Hwang D, de Perrot M, Liu M, Keshavjee S, Waddell TK, Cypel M. Modified in vivo lung perfusion allows for prolonged perfusion without acute lung injury. J Thorac Cardiovasc Surg. 2015 Mar.



Du K, Karp PH, Ackerley C, Zabner J, Keshavjee S, Cutz E, Yeger H. Aggregates of mutant CFTR fragments in airway epithelial cells of CF lungs: New pathologic observations. J Cyst Fibros. 2014 Oct.

Frendl G, Sodickson AC, Chung MK, Waldo AL, Gersh BJ, Tisdale JE, Calkins H, Aranki S, Kaneko T, Cassivi S, Smith SC Jr, Darbar D, Wee JO, Waddell TK, Amar D, Adler D. 2014 AATS guidelines for the prevention and management of perioperative atrial fibrillation and flutter for thoracic surgical procedures. Executive summary. J Thorac Cardiovasc Surg. 2014 Sep; 3(148): 772-91.

Golaraei A, Cisek R, Krouglov S, Navab R, Niu C, Sakashita S, Yasufuku K, Tsao MS, Wilson BC, Barzda V. Characterization of collagen in non-small cell lung carcinoma with second harmonic polarization microscopy. Biomed Opt Express. 2014 Oct; 5(10): 3563-7.

Gorczynski R, Chen Z, Khatri I, Podnos A. A comparison of protective immunity to re-challenge with EMT6 in mice cured of primary/metastatic growth by chemotherapy or immunotherapy. PLoS One. 2014 Nov 19; 9((11)): e113597.

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### **Invited Visits**

Cypel, Marcelo: American Association for Thoracic Surgery, Apr 2015. Invited Speaker: 1) AATS Guidelines for Extra-Corporeal Lung Support as Bridge to Lung Transplantation. 2) Use of Extra-Corporeal Life Support for Pneumonia.

Cypel, Marcelo: European Society of Organ Transplantation (ESOT), Budapest, Hungary, Oct 2014. Invited Lecturer: Immunomodulation of Lung Grafts During EVLP.

Cypel, Marcelo: International Society of Heart and Lung Transplantation, Nice, France, Apr 2015. Invited Speaker: Influence of Cold Ischemia in the Outcomes after Lung Transplantation.

Darling, Gail Elizabeth: American Association for Thoracic Surgery, Seattle, Washington, United States, 26 Apr 2015.

1) Distinguished Speaker: Welcome and Introduction. 2) Moderator: Esophageal Disease.

Gorczynski, Reginald M: FOCIS, San Diego, United States, 24 Jun 2015. Invited Speaker: 1) Comparison of immunity in mice cured of primary/metastatic growth of EMT6 or 4THM breast cancer by chemotherapy or immunotherapy. 2) Effect of infusion of mAbs to TNFRSF25 on skin graft survival in mice receiving autologous marrow transplantation.

Gorczynski, Reginald M: AAI Annual Meeting, New Orleans, Pennsylvania, United States, 8 May 2015. Invited Speaker: Immunization of CD200R1KO mice post surgical resection of EMT6 breast cancer leads to long-term (>1year) cure of metastatic tumor growth.

Gorczynski, Reginald M: Clinique La Prairie, Switzerland, Sep 2014. Invited Speaker: 1) HBFy- Specific Elisa Scientific Meeting of the CLPR Group in Clarens. 2) Experimental Basis of O2-Transport to stem cell niches and stem cell differentiation / Activation.

Keshavjee, Shaf: 10th Vail Cardiothoracic Transplantation: 20 Years of Updates and the Transition to Personalized Transplant Care, Vail, Colorado, United States, 21 Feb 2015. Invited Lecturer: 1) Therapeutics gases to treat the donor lung 2) Mesenchymal Stem Cell to Repair the Donor 3) Research and Clinical Applications of EVLP.

Keshavjee, Shaf: 11th International Congress on Lung Transplantation, Paris, Paris, France, 25 Sep 2014. Lecturer: 1) Ex vivo Lung Repair- Where are we? 2) Ex vivo lung perfusion or not for DCD Lungs?

Keshavjee, Shaf: 22nd Annual Thomas Shields Lecture, Northwestern University, Chicago, IL, United States, 27 May 2015. Invited Lecturer: Ex vivo ling perfusion: impact on lung transplantation, cancer and lung regeneration.

Keshavjee, Shaf: American Association for Thoracic Surgery 95th Annual Meeting, Seattle, United States, 25 Apr 2015. Speaker: 1) ECMO vs. CPB for intraoperative Support: How and what do you choose? 2) How to practice thoracic surgery in the pay for quality era: Quality is the New Black.

Keshavjee, Shaf: American Society of Transplantation CEOT: Immunity and Inflammation - Engineering cell, gene and drug therapies, Phoenix, United States, 7 Feb 2015. Speaker: Cutting Edge of Transplantation: Ex vivo Organ Repair.

Keshavjee, Shaf: ASTS Advanced Leadership Development Program, San Francisco, CA, United States, 27 Jul 2014. Invited Speaker: Innovations in Transplantation: Opportunities and Challenges- My Journey through Innovation.

Keshavjee, Shaf: Brigham and Women's Hospital Harvard University, Boston, United States, 4 May 2015. Gerald and Elaine Schuster Distinguished Lecturer in Thoracic Surgery. 1) Pulmonary Grand Rounds: Expanding Roles of Extracorporeal Lung Support in ARDS and Lung Transplantation. 2) Surgery Grand Rounds: Ex vivo Repair of Organs for Transplantation.

Keshavjee, Shaf: Massachusetts General Hospital, Boston, MA, United States, 23 Oct 2014. Earle W Wilkins Visiting Professorship: Ex vivo Lung Perfusion: Impact on Lung Transplant, Cancer and Lung Regeneration.

Keshavjee, Shaf: Mayo Clinic, Jacksonville, FL, 30 Mar 2015. Invited Lecturer: Ex vivo Organ Repair.

Keshavjee, Shaf: Clifton F Mountain Distinguished Lecture. MD Anderson Cancer Center, Houston, TX, United States, 30 Sep 2014. Lecturer: The impact of ex vivo lung perfusion on lung transplant, cancer and lung regeneration.

Keshavjee, Shaf: Laman A Gray Lecture. University of Louisville, Louisville, KY, United States, 5 Dec 2014. Invited Lecturer: Ex vivo Lung Perfusion: Impact on Lung Transplant, Cancer and Lung Regeneration.

Keshavjee, Shaf: Wuxi Peoples Hospital, Wuxi, China, 25 Oct 2014. Long Term Management of the Lung Transplant Patient.

Keshavjee, Shaf: Yale University, Human and Translational Immunology Department, Newhaven, CT, Ontario, Canada, Sep 2014. Invited Speaker: The Future of Transplantation: Personalized Medicine for the Organ".

Liu, Mingyao: Wuxi People's Hospital, Jingnan University, Jiangsu, China, 25 Oct 2014. Invited Speaker: Translational research in lung injury and transplantation.

Liu, Mingyao: Shanghai Chest Hospital, Shanghai Jiao Tong University, Shanghai, China, 2 Jul 2014. Invited Speaker: Translational research in lung injury and transplantation.

Liu, Mingyao: Changhai Hospital, Second Military Medical University, Shanghai, China, 2 Jul 2014. Invited Speaker: Translational research in lung injury and transplantation.



Liu, Mingyao: Wuxi People's Hospital, Jingnan University, Jiangsu, China, Jul 2014. Invited Speaker: Translational research in lung injury and transplantation.

Yasufuku, Kazuhiro: 31st Chiba Thoracic Surgery Conference, Chiba, Japan, 29 Nov 2014. Invited Speaker: Minimally Invasive Surgical Approach for Lung Cancer, Integration of Medical Engineering and Surgery.

Yasufuku, Kazuhiro: 5th Australian Lung Cancer Conference, Brisbane, Australia, 16 Oct 2014. Invited Speaker: 1) Emerging Technologies for the Surgical Management of Lung Cancer, 2) What is New in EBUS for the Management of Lung Cancer?, 3) Surgical Management of CT Screening Detected Nodules.

Yasufuku, Kazuhiro: 95th Annual Meeting of American Association for Thoracic Surgery, Seattle, Washington, United States, 25-26 Apr 2015. Invited Speaker: General Thoracic Skills: Implementing Innovation: What Future Leaders Need to Know. 1) Radial Miniprobe TBLx, 2) Radial Probe EBUS (Hands-on faculty). 3) AATS/STS General Thoracic Surgery Symposium: The Evolving Role of Thoracic Surgeons. Minimally Invasive Diagnostic Techniques for Tissue Diagnosis of Lung Lesions: Radial Miniprobe, Navigational Bronchoscopy – Do We Need Percutaneous Biopsy.

Yasufuku, Kazuhiro: American Association for Thoracic Surgery, Focus on Thoracic Surgery: Novel Technologies in Lung Cancer, Boston, Massachusetts, United States, 21-22 Nov 2014. Invited Speaker: 1) Advances in 3D Imaging for VATS Surgery. 2) Current Status of Bronchoscopic Ultrasound.

Yasufuku, Kazuhiro: Hokkaido University Respirology/Cardiothoracic Surgery Rounds, Division of Cardiothoracic Surgery, Hokkaido University, Sapporo, Hokkaidô [Hokkaido], Japan, 18 Aug 2014. Invited Speaker: Innovations in Thoracic Surgery.

Yasufuku, Kazuhiro: The American College of Chest Physicians International Conference 2014, Austin, Texas, United States, 25 Oct 2014. Invited Speaker: Post Graduate Course, The 22nd Annual Assembly of the American Association of Bronchology and Interventional Pulmonology. 1) Evolving role of EBUS in lung cancer, 2) EBUS-TBNA – Hands-on session.

Yasufuku, Kazuhiro: The Society for Thoracic Surgeons Annual Meeting, San Diego, California, United States, 25 Jan 2015. Invited Speaker: STS/CHEST: Primer on Advanced and Therapeutic Bronchoscopy: Theory and Hands-on Session. 1) EBUS Mediastinal Anatomy, 2) EBUS/TBNA Airway Models (Hands-on faculty). 3) General Thoracic Track I: Novel Thoracoscopic Techniques and Tools, New Developments in Management of Lung Tumors. Intraoperative Local Cancer Therapies.

### **Research and Investigations**

A genomics-based rapid diagnostic tool for the treatment and repair of donor lungs during ex vivo lung perfusion. *University of Toronto McLaughlin Centre*. *Keshavjee S*. (\$85,000.00 CAD, Jul 2014 - Jun 2015).

Advanced therapeutics for ex vivo repair of lungs for transplantation. Canadian Institute of Health Research. Keshavjee S, Cypel M, Liu M. (\$914,350.00 CAD, Jan 2014 - Dec 2019).

Cone-beam CT guided microcoil localization of pulmonary nodules during VATS. Yasufuku K. (Mar 2015 - present).

Cost-effectiveness and health related outcomes comparison of ambulatory definitive management of malignant pleural effusion (MPE) with talc pleurodesis and indwelling pleural catheter. MSH-UHN AMO. Yasufuku K. (\$180,000.00 CAD, Apr 2015 - Mar 2017).

Development of isolated lung perfusion for the treatment of cancer metastases to the lungs. *Canadian Cancer Society*. *Cypel M*. (\$200,000.00 CAD, 2014 - 2015).

EBUS as the first line investigation for isolated mediastinal lymphadenopathy. Yasufuku K. (2014 - present).

Endobronchial ultrasound transbronchial needle aspiration (EBUS-TBNA) mediastinal lymph node staging in malignant pleural mesothelioma. *Yasufuku K*. (Jun 2014 - present).

Feasibility of minimally invasive Thoracoscopic Ultrasound for Localization of Pulmonary Nodules Using Resected Human Lungs. *Yasufuku K.* (Jan 2015 - present).

Image-guided localization platform for minimally invasive lung surgery. Canadian Cancer Society. Yasufuku K. (\$200,000.00 CAD, Aug 2014 - Jul 2016).

Lobectomy vs Thoracoscopic Lobectomy for Lung Cancer: A pilot randomized controlled study in a single-player healthcare system. *Intuitive Surgical, Clinical Robotics Research Grant. Yasufuku K.* (\$50,000.00 CAD, Jan 2015 - Dec 2015).

Malignant pleural effusion (MPE) management through the Rapid Assessment of Complex Pleural Effusion (RACE) Program. Canadian Cancer Society. Yasufuku K. (\$516,000.00 CAD, Feb 2015 - Jan 2017).

Minimally Invasive Image-guided Therapeutics for Lung Cancer - From Bench to Bedside. *Princess Margaret Foundation. Yasufuku K.* (\$100,000.00 CAD, Aug 2014 - Jul 2015).

Minimally invasive sentinel lymph node mapping with ICG during robotic lung cancer surgery - phase I trial. *Intuitive Surgical, Clinical Robotics Research Grant. Yasufuku K.* (\$50,000.00 CAD, Jan 2015 - Dec 2015).

Nanotechnology-enabled minimally invasive localization and treatment of lung cancer. Ontario Cancer Institute. Yasufuku K, Zheng G, Wilson B, Weersink R. (\$300,000.00 CAD, 2015 - 2016).

New Devices for Organ Preservation and Assessment. Ontario Ministry of Research and Innovation, Ontario-China Research and Innovation Fund (OCRIF) 2014. Liu M, Shen, SZ, Keshavjee S. (\$100,000.00 CAD, 2015 - 2017).

Organ Repair Laboratory. Canadian Foundation for Innovation. Keshavjee S, Cypel M, Davies J, Grant D, Humar A, Kelley S, Liu M, Selzner M, Waddell T, Zheng G. (Mar 2015 - Apr 2016).



REAL-PDX: Resistance modeling in EGFR and ALK lung cancer patient-derived xenografts for personalized post-progression therapy. *Canadian Cancer Society*. *Yasufuku K*. (\$1,250,000.00 CAD, Feb 2015 - Jan 2020).

Repairing Donor Lungs Outside the Body to Improve Lung Transplant Outcomes. Ministry of Research and Innovation (MRI) (Ontario). Cypel M. (\$190,000.00 CAD, Jul 2014 - Jul 2019).

Research in Thoracic Intervention. Olympus Medical Systems Corp/UHN, Olympus Medical Systems Corp/UHN Collaboration Grant. Yasufuku K. (\$250,000.00 CAD, Jul 2014 - Jun 2015).

Restaging the mediastinum with EBUS-TBNA: Feasibility and correlating findings with PET-CT scan. Yasufuku K. (Sep 2014 - present).

Safety of medical devices licensed for sued in Canada: A mixed methods study to inform policy for effective post-market surveillance. Canadian Institutes of Health Research. (\$411,277.00 CAD, Mar 2014 - Jul 2017).

Science Operating Room Extension (ScORE). Canada Foundation for Innovation (CFI). Yasufuku K. (\$1,997,099.00 CAD, 2014 - 2018).

Tissue remodelling and the immune response in obliterative bronchiolitis after lung transplantation. *Canadian Cystic Fibrosis Foundation. Keshavjee S.* (\$358,966.00 CAD, Apr 2015 - Mar 2018).

#### **Honours Received**

Cypel, Marcelo: George Armstrong Peters Award, University of Toronto 2015.

Cypel, Marcelo: Graham Roscoe Junior Faculty, University of Toronto. Jul 2014 - Jul 2017.

Cypel, Marcelo: Robert J. Ginsberg Award for Excellence in PostGraduate Teaching. Thoracic Surgery, Dept of Surgery, Faculty of Medicine. 2015.

Darling, Gail Elizabeth: Gail E. Darling Award for Excellence in Undergraduate Teaching. Thoracic Surgery, Dept of Surgery, Faculty of Medicine. 2014

Keshavjee, Shaf: Canadian Academy of Health Sciences Fellowship, Canadian Academy of Health Sciences. 2014

Keshavjee, Shaf: Doctor of Science honoris causa, Ryerson University. 2014

Keshavjee, Shaf: Doctorate of Science - Honorary, (DSC Hon), Queen's University, Kingston, ON, Canada. Dec 2014

Keshavjee, Shaf: Officer of the Order of Canada (OC). Dec 2014

# Division of Urology

Dr. D.S. Elterman	Assistant Professor
Dr. A. Finelli	Associate Professor
Dr. N.E. Fleshner	Professor (Division Head)
Dr. R. Hamilton	Assistant Professor
Dr. M.M. Hassouna	Professor
Dr. M.A.S. Jewett	Professor
Dr. G. Kulkarni	Assistant Professor
Dr. A. Matthew	Assistant Professor
Dr. S.B. Radomski	Professor
Dr. M. Robinette	Associate Professor
Dr. J. Trachtenberg	Professor

### **Publications**

Ajzenberg H, Slaats GA, Stokman MF, Arts HH, Logister I, Kroes HY, Renkema KY, van Haelst MM, Terhal MA, van Roo IA, Keijzer-Veen MG, Knoers NV, Lilien MR, Jewett MAS, Giles RH. Non-invasive sources of ciliated cells from pediatric and adult patients. Cilia Journal. 2015 Mar 13.

Albanes D, Till C, Klein EA, Goodman PJ, Mondul AM, Weinstein SJ, Taylor PR, Parnes HL, Gaziano JM, Song X, Fleshner N, Brown PH, Meyskens FL, Thompson IM. Plasma tocopherols and risk of prostate cancer in the selenium and vitamin E prevention trial (SELECT). Cancer Prevention Research. 2014 Sep. Cancer Prev Res (Phila). 2014 Sep;7(9):886-95.

Alibhai SMH, Santa Mina D, Ritvo P, Sabiston C, Krahn M, Tomlinson G, Matthew A, Segal R, Warde P, Durbano S, O'Neill M, Culos-Reed N. A Phase II RCT and economic analysis of three exercise delivery methods in men with Prostate Cancer on Androgen Deprivation Therapy. BMC Cancer. 2015 Apr 19.

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 Apr 28: 140907. PMID: 25919803. AID: 10.1148/radiol.2015140907.

Banakhair M, Elkelini M, Hassouna M. The role of Sacral Neuromodulation in Female sexual dysfunction. Journal of the Canadian Urological Assocaition. 2014.



Barrett T, Davidson SRH, Wilson BC, Weersink RA, Trachtenberg J, Haider M. Dynamic contrast enhanced MRI as a predictor of vascular-targeted ohotodynamic focal ablation therapy outcome in prostate cancer post-failed external beam radiation therapy. Can Urol Assoc J. 2014 Oct 22.

Basappa, N.; Bjarnason, G.; Breau, R.H.; Canil, C.; Heng, D.; Jewett, M.A.S.; Kapoor, A.; Nesberger, C.; Potvin, K.; Ruether, D.; Venner. P.; Wood, L.; North, S. CKCF Consensus Statement. Canadian Urological Association Journal. 2015 Jun.

Bhatt JR, Finelli A. Landmarks in the diagnosis and treatment of renal cell carcinoma. Nat Rev Urol. 2014 Sep 1; 11(9): 517-25.

Bhindi B, Kulkarni GS, Finelli A, Alibhai SM, Hamilton RJ, Toi A, van der Kwast T, Evans A, Hersey K, Jewett MA, Zlotta AR, Trachtenberg J, Fleshner NE. Obesity is associated with risk of progression for low-risk prostate cancers managed expectantly. European Urology. 2014 Nov;66(5):841-8.

Bhindi B, Locke J, Alibhai SM, Kulkarni GS, Margel DS, Hamilton RJ, Finelli A, Trachtenberg J, Zlotta AR, Toi A, Hersey KM, Evans A, van der Kwast TH, Fleshner NE. Dissecting the association between metabolic syndrome and prostate cancer risk: analysis of a large clinical cohort. European Urology. 2015 Jan;67(1):64-70.

Bhindi B, Mamdani M, Kulkarni GS, Finelli A, Hamilton RJ, Trachtenberg J, Zlotta AR, Evans A, van der Kwast TH, Toi A, Fleshner NE. Preventive services task force recommendations against PSA screening on prostate biopsy and cancer detection rates. J Urol. 2014 Dec 3. PMID: 25481037. AID: 10.1016/j.juro.2014.11.096.

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### **Invited Visits**

Elterman, Dean S: United States, 8 Oct 2014. Invited Speaker: Men's Health Show, Doctor Radio, Sirius XM Radio USA.

Elterman, Dean S: Global News, Toronto, Ontario, Canada, 7 Jan 2015. Presenter: Bladder Neuromodulation. URL: http://globalnews.ca/news/1760954/toronto-hospital-offers-effective-but-rarely-used-treatment-for-severe-incontinence/) to CV

Elterman, Dean S: Princess Margaret Cancer Care Uro-Oncology Dialogue, Niagra On the Lake, Ontario, Canada, 21 Sep 2014. Invited Speaker: Bengn Prostetic Hyperplasia.



**Elterman, Dean S:** The 2nd Friends of Israel – Urological Symposium (FOIU), Tel Aviv, Israel, 1-3 Jul 2014. Invited Speaker: 1) Late initiation of 5 alpha reductase inhibitors. 2) Post-Prostatectomy Erectile Dysfunction. 3) Male Urethral Slings. 4) Chair: Erectile Dysfunction.

Elterman, Dean S: The Todd Shapiro Show, Toronto, Ontario, Canada, 27 Aug 2014. Invited Speaker: Discussing mens urological health issues.

Elterman, Dean S: Toronto, Ontario, Canada, 20 Nov 2014. Invited Speaker: Todd Shapiro Show Live Prostate Exams supporting Movember Canada and Prostate Cancer Canada! http://www.thetoddshapiroshow.com/podcast.xml.

Elterman, Dean S: Wasser Pain Management Centre Educational Rounds, Toronto, Ontario, Canada, 4 Sep 2014. Invited Lecturer: Chronic Pelvic Pain and Sacral Neuromodulation Review Chronic Pelvic Pain Syndrome (CPPS) and Interstital Cystitis (IC); Diagnostic and Therapeutic Options: Review Sacral Neuromodulation (SNM); Learn application of SNM to CPPS.

Finelli, Antonio: Alberta Provincial GU Tumour Team Meeting, Calgary, Alberta, Canada, 3 Oct 2014. Invited Speaker: Intermittent Androgen Deprivation Therapy in Prostate Cancer.

Finelli, Antonio: Canadian Kidney Cancer Forum, Toronto, Ontario, Canada, 5 Feb 2015. Invited Speaker: Quality Indicators Benchmarking: An Update.

Finelli, Antonio: Canadian Update in Surgical Procedures, Montreal, Quebec, Canada, 8 Nov 2014. 1) Invited Lecturer: Robotic Surgery in Prostate Cancer. 2) Facilitator: Guidelines in Lapraoscopy/ MIS in Urology? 3) Debator - Con: Robotic Surgery Should be Available to Community Centres.

Finelli, Antonio: Congress of the Société Internationale d'Urologie, Glasgow, United Kingdom, 14 Oct 2014. Invited Speaker: 1) Surveillance in GU Oncology Master Class. 2) What is the Natural History of Small Renal Masses?

Finelli, Antonio: Congress of the Société Internationale d'Urologie, Los Angeles, California, United States, 22 Aug 2014. Invited Lecturer: Natural History Small Renal Masses 7th International Symposium on Focal Therapy and Imaging in Prostate and Kidney Cancer.

Finelli, Antonio: International Kidney Cancer Symposium, Chicago, Illinois, United States, 24 Oct 2014. Invited Lecturer: Quality Indicators in RCC Care.

Fleshner, Neil Eric: Best of GUGI Summit 2015, Toronto, Ontario, Canada, 24 Apr 2015. Invited Speaker: Prostate Cancer: Hormone Sensitive Disease.

Fleshner, Neil Eric: Calgary Herald Online, Toronto, Ontario, Canada, 9 Sep 2014. Speaker: Shortage of bladder cancer drug could be tragic for patients.

Fleshner, Neil Eric: Canadian Urological Association, CUO AUA Continuing Education Program, Sherbrooke, Quebec, Canada, 27 Sep 2014. 1) Visiting Professor: La surveillance active du cancer de la prostate: les données Ontariennes (étude REDEEM? et guideline de AUC). 2) Visiting Professor: Rôle du syndrome métabolique dans le cancer de la prostate. 3) Panelist: Présentation et discussion des cas complexes (cancer prostate, rein, vessie).

Fleshner, Neil Eric: Canadian Urological Association, Prostate Cancer Preceptorship Program for visiting Japanese, Toronto, Ontario, Canada, 17-18 Sep 2014. 1) Speaker: Adjuvant and neoadjuvant hormonal treatment. 2) Speaker: Lunch with the Experts: Discussions with PMH faculty; Biology of CRPC: What are the data gaps and how to solve them? 3) Discussion Leader: Interactive clinical cases discussion CRPC (includes management of side effects and assessment of response and progression of Abiraterone) and locally advanced disease. 4) Speaker: Radical prostatectomy for localized prostate cancer. 5) Speaker: Hormone therapy. 6) Speaker: Focal therapy for prostate cancer.

Fleshner, Neil Eric: CBC National TV, Toronto, Ontario, Canada, 27 Oct 2014. Speaker: PSA screening. The prostate-specific antigen, or PSA, is the most commonly used blood test to detect prostate cancer. New guidelines from the Canadian Task Force on Preventive Health Care recommend the test should no longer be used as it can cause more harm than benefit. However, not all health-care workers agree with the new guidelines. The guidelines are flawed and are a setback for men's health. URL: http://www.cbc.ca/player/News/TV%20Shows/The%20National/ID/2574356605/

Fleshner, Neil Eric: CBC News Online, Toronto, Ontario, Canada, 27 Oct 2014. Speaker: PSA test should be abandoned as screen for prostate cancer, task force says. The blood test most commonly used to screen for prostate cancer can cause more harm than good and should be dropped, says the Canadian Task Force on Preventive Health Care. The main problems associated with the test -- which is known as the prostate-specific antigen or PSA -- are over-diagnosis and false-positive results. Despite its potential flaws, the PSA test is critical in detecting cancers early and saving lives. URL: http://www.cbc.ca/news/health/psa-test-should-be-abandoned-as-screen-for-prostate-cancer-task-force-says-1.2814196

Fleshner, Neil Eric: Central East Regional Cancer Program (CERP), 2nd Annual Primary Care CME Event, Prostate Cancer Across the Cancer Journey, Cancer Care Ontario, Ajax, Ontario, Canada, 14 Dec 2014. Invited Speaker: Risk Reduction of Prostate Cancer: Lessons Learned and Where to From Here?

Fleshner, Neil Eric: City News TV, Toronto, Ontario, Canada, 29 Oct 2014. Speaker: Some health advocates say fewer PSA tests will lead to more prostate cancer deaths. URL: http://www.citynews.ca/2014/10/29/some-health-advocates-say-fewer-psa-tests-will-lead-to-more-prostate-cancer-deaths/

Fleshner, Neil Eric: Friends of Israel Urological Symposium (FOIU), Tel Aviv, Israel, 2-3 Jul 2014. 1) Panelist: What do we agree/disagree about including active surveillance in the management of prostate cancer? 2) Presenter: Local control of prostate cancer/high risk cancer. 3) Presenter: What can we learn and apply to urological malignancies?

Fleshner, Neil Eric: Men's Health Summit, Canadian Urological Association., Toronto, Ontario, Canada, 17 Jan 2015.

1) Chair: Men's Urologic Health-Where are we today? 2) Chair: Men's Health-What parts are relevant? 3) Presenter: Men's Health-Looking to the future: Diabetes/Metabolic Syndrome.



Fleshner, Neil Eric: National Post Online, Toronto, Ontario, Canada, Mar 2015. Speaker: New prostate cancer medications extend and improve patients' lives. Media Planet's "The Fight Against Cancer" campaign.

Fleshner, Neil Eric: Société Internationale D'Urologie, Glasgow, Scotland, United Kingdom, 12 Oct 2014. Presenter: Rationale for Metformin in Prostate Cancer, Minimizing Morbidity and Maximizing Survival in the Treatment of Urologic Cancer.

Fleshner, Neil Eric: Society of Urologic Oncology, Bethesda, Maryland, United States, 5 Dec 2014. Moderator: Oral Abstract Session/Announcement of Poster Winners.

Fleshner, Neil Eric: Visiting International Speaker Tour, Harry Perkins Institute of Medical Research, Perth, Western Australia, Australia, 24-25 Nov 2014. Visiting Professor: 1) Gu BioBanking and Translational Research. SJOG Subiaco. 2) Diet, Lifestyle, Epigenetics and Prostate Cancer. 3) Active Surveillance and Prevention of Prostate Cancer.

Fleshner, Neil Eric: Visiting International Speaker Tour, Northern Hospital Urology Meeting and Multidisciplinary Meeting, Melbourne, Victoria, Australia, 19 Nov 2014. Visiting Professor: Androgen Deprivation Therapy.

Fleshner, Neil Eric: Visiting International Speaker Tour, Royal Melbourne Hospital Urology Research Meeting, Melbourne, Victoria, Australia, 18-19 Nov 2014. Visiting Professor: 1) The prevention of prostate cancer. 2) Active Surveillance.

Fleshner, Neil Eric: Visiting International Speaker Tour, Update 2014, Monash Medical Centre Research Day, Melbourne, Victoria, Australia, 20-21 Nov 2014. Visiting Professor: 1) Androgen Deprivation Therapy. 2) Management of Castrate Resistant Prostate Cancer. 3) The Role of Metformin in Prostate Cancer.

Hamilton, Robert: Janssen CUA Prostate Cancer Preceptorship, Canada, 17 Sep 2014. Invited Speaker: Adverse effects of novel androgen pathway drugs for metastatic prostate cancer.

Hamilton, Robert: www.UroToday.com, 4 May 2015. Featured Publication: Lymph Node Yield in Primary Retroperitoneal Lymph Node Dissection for Nonseminoma Germ Cell Tumours. URL: www.UroToday.com

Hassouna, Magdy M: American Congress for Rehabilitation Medicine. 91st Conference, Toronto, Ontario, Canada, 8 Oct 2014. Distinguished Speaker: Medical management of the voiding dysfunction in patients with spinal cord injury.

Hassouna, Magdy M: Montreal, Canada, 8 Jun 2015. 1) Invited Speaker: Neuromodulation of Pelvic Floor Disorders. 2) Distinguished Speaker: Neuromodulation for Urologic Diseases.

Hassouna, Magdy M: Saudi Urological Meeting, Riyadh, Saudi Arabia, 2 Mar 2015. Distinguished Speaker: Role of Sacral Neuromodulation in Chronic Pelvic Pain.

Jewett, Michael A. S: 30th South African Urological Association Congress - Urology congress 2014, Cape Town, Unknown, South Africa, 19-20 Sep 2014. Invited Speaker: 1) How to manage testicular cancer stage by stage. 2) What's hot in the management of localised kidney cancer in 2014?

Jewett, Michael A. S: Department of Urology at University of Zurich Hospital, Zürich (de), Switzerland, 29 Jan 2015. Invited Speaker: Managment of Small Renal Masses.

Jewett, Michael A. S: Eurapean Partnership: London Renal Cancer Day, London, United Kingdom, 20 Mar 2015. Invited Speaker: Small Renal Mass - The Canadian Experience.

Jewett, Michael A. S: European Assocciation of Urology, 6th European Multidisciplinary Meeting, Lisbon, Portugal, 13-15 Nov 2014. Invited Speaker: 1) Active surveillance is often applicable. 2) Testicular Cancer.

Jewett, Michael A. S: Interdisciplinary Uro-Oncology Symposium, Zürich (de), Switzerland, 30 Jan 2015. Invited Speaker: 1) Role of surgery in 2015: The renaissance of RPLND. 2) Improving testis cancer care: The Toronto multidisciplinary testis cancer clinic. 3) Testis Cancer: Stage 1 seminoma and non-seminoma: Why are we still using any adjuvant treatment.

Jewett, Michael A. S: NYU School of Medicine, New York, New York, United States, 12 Dec 2014. Invited Speaker: Up to date Management of High Risk Superficial Bladder Cancer.

Jewett, Michael A. S: Simposio Internacional de Urologia Oncologica, Guerrero, Mexico, 18 Jul 2014. Invited Speaker: 1) Safety Techniques and Results of SRM Biopsy. 2) Survivorship and Genitourinary Cancer.

Jewett, Michael A. S: Small Renal Mass 360: An AUA Surgical Summit, Los Angeles, California, United States, 23 Oct 2014. Invited Speaker: Active Surveillance: Canadian Data.

Kulkarni, Girish: American Urological Association, United States, May 2015. Invited Lecturer: Development and Validation of the Bladder Utility Symptom Scale (BUSS).

Kulkarni, Girish: Canadian Urological Association/Canadian Urologic Oncology Group, Montreal, Quebec, Canada, 21 Nov 2014. Invited Speaker: Optimizing Outcomes in High Risk NMIBC.

Kulkarni, Girish: Issues & Controversies in Urologic Cancer, Whistler, British Columbia, Canada, 19 Feb 2015. Invited Speaker: Nephron-Sparing Approaches to Upper Tract Urothelial Carcinoma.

Radomski, Sidney B: Canadian Academy of Urological Surgeons Annual Meeting, Ottawa, Ontario, Canada, 27 Jun 2015. Invited Lecturer: Manpower Update.

Radomski, Sidney B: Prostate Cancer Canada, Toronto, Ontario, Canada, 19 May 2015. Invited Speaker: Incontinence and Erectile Dysfunction After Prostate Cancer Treatment.

Trachtenberg, John: American Urological Association, (AUA), New Orleans, Louisiana, United States, 15 May 2015. Speaker: Impact of Metabolic Syndrome on stage, grade and overall failure in men undergoing radical prostatectomy for prostate cancer.



# **Research and Investigations**

A clinical trial to evaluate the effect of neoadjuvant MK-3475 (pembrolizumab) therapy on intratumoral immune infiltrates in renal cell cancer (RCC) patients undergoing surgical resection. *Merck Canada. Matthew A.* (\$277,507.00 CAD, Feb 2015 - Feb 2018).

A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Phase III Study of ARN-509 in Men with Non-Metastatic (M0) Castration-Resistant Prostate Cancer (SPARTAN). *Aragon Inc. Matthew A*. (Feb 2014 - present).

A Phase III Surgical Trial to Evaluate the Benefit of a Standard versus and Extended Lymphadenectomy Performed at Time of Radical Cystectomy for Muscle Invasive Urothelial Cancer. *National Cancer Institute (USA)*. *Matthew A*, *Lerner S*. (Oct 2014 - Oct 2016).

A randomized trial of conventional versus advanced pelvic floor exercises to treat urinary incontinence following radical prostatectomy. Prostate Cancer Canada. Matthew AG, Santa Mina D, Alibhai SMH, Ritvo P, Jamnicky L, Jones J, Faghani N, Finelli A, Elterman D, Trachtenberg J. (\$158,963.18 CAD, Jul 2014 - Jun 2016).

ASAP Sexual Health and Rehabilitation Solution: Project #1 The Prostate Cancer Canada Sexual Health and Rehabilitation Practitioner eTraining Program (PCC-SHARP). Prostate Cancer Canada, A Survivorship Action Partnership. Matthew A, Robinson J, Davison J, Elterman D, Wassersug R, Elliott S, Herschorn S, Gajewski J, Brock G, Stephen J, Finelli A, Ritvo P, Isaac W, Valiquette L, Jarvi K, Jamnicky L. (\$132,521.00 CAD, Apr 2014 - Mar 2017).

ASAP Sexual Health and Rehabilitation Solution: Project #2 The Prostate Cancer Canada Sexual Health and Rehabilitation eCLINIC (PCC-SHARe). Prostate Cancer Canada, A Survivorship Action Partnership. Matthew A, McLeod D, Robinson J, Davison J, Elterman D, Wassersug R, Elliott S, Herschorn S, Gajewski J, Brock G, Stephen J, Finelli A, Ritvo P, Isaac W, Valiquette L, Jarvi K., Jamnicky L. (\$813,392.00, Apr 2014 - Mar 2017).

Determining the Research Priorities of Canadian Kidney Cancer Patients, Caregivers and Clinicians: A priority setting partnership for kidney cancer. CIHR. Jewett M, Jones JM. (\$9,969.00 2014-2015).

Development of a utility weighting function for the Bladder Utility Symptom Scale (BUSS-U). Canadian Cancer Society Research Institute (CCSRI). Finelli A. (\$299,900.00 CAD, Feb 2014 - Jan 2016).

Elucidating the interactome of TEX101, a human testis-specific protein, and its implications in fertilization. Canadian Institutes of Health Research. Jarvi K, Drabovich A, Casper R, Diamandis E, Esfandiari N, Grober E, Hamilton R, Librach C, Lo K, Mullen J, Van Der Kwast T. (Sep 2014 - Sep 2016).

Establishing a biological network strategy for personalizing prognosis in non-muscle invasive bladder cancer. Canadian Cancer Society Research Institute (CCSRI). Kulkrni GS, Zlotta A, Wrana J. (\$1,249,950.00 CAD, Feb 2014 - Jan 2019).

GAP 5 Global Testicular Cancer Translational Research Initiative. *Movember Foundation*. *Hamilton R*. (\$1,200,000.00 CAD, Sep 2014 - Sep 2016).

Harnessing the Patient Immune System to Treat Advanced Prostate Cancer. Prostate Cancer Canada. Trachtenberg J, Joshua A, Keating A, Major P, Singh G, Tang D, Gosselin J, Bridle B, Kamen A, Viswanathan S, Matsumoto E, Corbett T, Popovic S, Seidlitz E, Wooton S, Wood G, De Vries J, Gerritsen W, Shayegan B, Azziz T, Landry C, Romer-Oberdorfer A, Garcia-Sastre A, Palese P, Zamarin D, Gerson D. (\$4,912,269.00 CAD, Mar 2014 - Jul 2014).

Improving the patient experience for prostate cancer patients through better symptom management – Pilot implementation of the EPIC patient reported outcome measurement tool. *Cancer Care Ontario*. *Matthew A*, *Macedo A*. (\$40,000.00 CAD, Sep 2014 - Aug 2015).

Molecular characterization of tumors arising in patients taking 5-alpha reductase inhibitors. Canadian Urological Oncology Group. Hamilton R. (\$10,000.00 CAD, Jul 2014).

Prostate Cancer 360 Degrees. Prostate Cancer Canada. Jones J, Matthew A, Goldenberg L, Tanguay S, So A, Aprikian A, Santa Mina D, Elterman D, Howell D, Li M, Gleave M, Krahn M, Fleshner N, Warde P, Black P, Chung P, Hamilton R, Alibhai S, Elliot S, Kassouf W, Rosberger Z. (\$1,218,025.00 CAD, Apr 2015 - Sep 2019).

Reducing anxiety and enhancing quality of life among caregivers of prostate cancer survivors: Development and evaluation of a dyadic, tailored, web-based, psychosocial and physical self-management programme. Prostate Cancer Canada, Movember Targeted RFA in Survivorship Research. Lambert S, Robinson J, Carli F, Saha-Chaudhuri P, Matthew A, Ellis J, Loiselle C, Santa Mina D, Peacock S, Goldenberg L. (\$434,040.00 CAD, Apr 2015 - Mar 2020).

Sexual Health and eClinic (SHARe). Prostate Cancer Canada, A Survivorship Action Plan. Matthew A. (\$813,392.00 CAD, Apr 2014 - Mar 2017).

Sexual Health and Rehabilitation Practitioner eTraining Program (SHARP). Prostate Cancer Canada. Matthew A. (\$132,521.00 CAD, Apr 2014 - Mar 2017).

The prostate cancer program project in rapid development of novel diagnostic markers for early prostate cancer (PRONTO). Prostate Cancer Canada (PCC). Finelli A, Bartlett J, Berman D, Buttyan R, Earle C, Loblaw A, Bauman G, Boutros P, Lapointe J, Park P, Rakovitch E, Saskin R, Thomson A, van der Kwast T, Venkateswaran V. (\$4,995,000.00 CAD, Jul 2014 - Jul 2019).

Tranexamic Acid during Cystectomy Trial (TACT) Pilot Study. Canadian Institute of Health Research. Kulkarni G, Breau R. (Feb 2014 - Mar 2015).

True NTH ADT Educational Program. Prostate Cancer Canada/ Movember, True NTH. Wassersug R, Robinson J, Aprikian A, Jarvi K, Jones J, Klag M, Matthew A, McIntyre D, McLeod D, Pro L. (\$677,611.00 CAD, Feb 2014 - Jan 2017).



Unmasking cholesterol-blocked, prostate tumor-specific membrane glycosphingolipid(GSL) antigens provides a novel strategy for prostate tumor immunotherapy. *Dept of the US Army. Lingwood C, Fleshner N, Venkateswaran V.* (\$544,939.00 USD, Jul 2014 - May 2017).

Utility of MRI in the Detection of Prostate Cancer Among Men With Negative Biopsy and PSA Between 2.5 and 10 ng/ml. *Prostate Cancer Canada*. *Fleshner N*, *Finelli A*, *Kulkarni G*, *Hamilton R*, *Ghai S*. (\$200,000.00 CAD, Jul 2014 - Jun 2016).

Validation of multi-transcript signatures for active surveillance of prostate cancer. *National Institutes of Health (NIH) (USA). Kim H, Fleshner N.* (\$143,105.00 USD, Apr 2014 - Mar 2019).

### **Honours and Awards**

Fleshner, Neil Eric: Ride To Conquer Cancer Hall of Fame Award, Princess Margaret Cancer Centre. 2014.

Hamilton, Robert: Honour Your Hero Award, Princess Margaret Cancer Foundation. Feb 2015.

Hamilton, Robert: Outstanding Reviewer 2014, Journal of Urology. Feb 2015.

Kulkarni, Girish: Bernard Langer Surgeon-Scientist Award, University of Toronto. Apr 2015.

Kulkarni, Girish: Faculty Postgraduate Teaching Award, Clinical, University of Toronto. Urology, Dept of Surgery, Faculty of Medicine. Jul 2014 - Jun 2015.

Trachtenberg, John: Doctor of Science - Honoris causa, University of Guelph, Toronto, Ontario, Canada. For his leadership and contributions to the treatment of Prostate Cancer. Jan 2015

# 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 Assistant Professor

Dr. B.B. Rubin Professor

Dr. L. Tse Assistant Professor

Dr. D.L. Wooster Professor

### **Publications**

Ayling OG, Montbriand J, Jiang J, Ladak S, Love L, Eisenberg N, Katz J, Clarke H, Roche-Nagle G. Continuous regional anaesthesia provides effective pain management and reduces opioid requirement following major lower limb amputation. Eur J Vasc Endovasc Surg. 2014 Nov 1; 48(5): 559-64.

Collaud S, Waddell TK, Yasufuku K, Oreopoulos G, Rampersaud R, Rubin BB, Roche-Nagle G, Keshavjee S, de Perrot M. Thoracic aortic endografting facilitates the resection of tumors infiltrating the aorta. Journal of Thoracic and Cardiovascular Surgery. 2014; 147(4): 1178-82.

Cooper J, Power AH, DeRose G, Forbes TL, Dubois L. Similar failure and patency rates when comparing one and two-stage basilic vein transposition. J Vasc Surg. 2015 Mar; 61(3): 809-16.

Cooper JA, Dubois L, Power AH, DeRose G, MacKenzie KS, Forbes TL. Canadian vascular surgery residents' perceptions regarding future job opportunities. Vascular. 2015 Jun; 23(3): 253-9.

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. 2015 May.

Cristancho S, Bidinosti S, Lingard L, Novick R, Ott M, Forbes T. Seeing in different ways: Introducing "rich pictures" in the study of expert judgement. Qual Health Res. 2015 May; 25(5): 413-25.

Cristancho S, Bidinosti S, Lingard L, Novick R, Ott M, Forbes TL. What's behind the scenes? Exploring the unspoken dimensions of complex and challenging surgical situations. Acad Med. 2014 Nov; 89(11): 1540-7.

Cunningham R, Murray A, Byrne J, Hammond L, Barry M, Mehigan D, Sheehan S. Venous thromboembolism prophylaxis guideline compliance: a pilot study of augmented medication charts. Ir J Med Sci. 2014 Jul 15.

Doyle MG, Alvarado F, Grosse-Wortmann L, Honjo O, Amon CH, Zhang W, Ide H, Weisel RD, Tse LW. A Computational Fluid Dynamics model of failing fontan circulation for use in the design of a novel treatment. Proceedings of the 25th Canadian Congress of Applied Mechanics. 2015 Feb 26.

Elliott CG, Forbes TL, Leask A, Hamilton DW. Inflammatory microenvironment and tumour necrosis factor alpha as modulators of periostin and CCN2 expression in human non-healing skin wounds and dermal fibroblasts. Matrix Biol. 2015 Apr; 43: 71-84.

Emami H, Singh P, Macnabb M, Vucic E, Lavender Z, Rudd J, Fayad Z, Lehrer-Graiwer J, Korsgren, M, Figueroa A,



Fredrickson J, Rubin B, Tawakol A. Splenic Metabolic Activity Predicts Risk of Future Cardiovascular Events: Demonstration of a Cardiosplenic Axis in Humans. JACC Cardiovascular Imaging. 2014 Dec 31; pii: S1936-878X(14)00933-4. doi: 10.1016/j.jcmg.2014.10.009.

Faure EM, Becquemin JP, Cochennec F, ENGAGE collaborators. Predictive factors for limb occlusions after endovascular aneurysm repair. J Vasc Surg. 2015 May; 61(5): 1138-45.

Fitridge R, Boult M, Mackillp C, de Loryn T, Barnes M, Cowled P, Thompson MM, Holt PJ, Karthikesalingam A, Sayers RD, Choke E, Boyle JR, Forbes TL, Novick T. International trends in patient selection for elective endovascular aneurysm repair: sicker patients with safer anatomy leading to improved 1-year survival. Ann Vasc Surg. 2015 Feb; 29(2): 197-205.

Forbes TL, Naylor AR. Commentary regarding - Trans Atlantic Debate: Whether venous perforator surgery reduces varicose vein recurrences. J Vasc Surg. 2014 Sep; 60(3): 803.

Forbes TL, Naylor AR. Commentary regarding - Trans Atlantic Debate: Whether endovascular repair offers a survival advantage over open repair for ruptured abdominal aortic aneurysms. J Vasc Surg. 2015 Feb; 61(2): 555.

Forbes TL, Naylor AR. Commentary regarding - Trans Atlantic Debate: Whether endovascular repair offers a survival advantage over open repair for ruptured abdominal aortic aneurysms. Eur J Vasc Endovasc Surg. 2015 Feb; 49(2): 116 & 127-8.

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 Apr.

Forbes TL. Commentary regarding - Trans Atlantic Debate: Whether carotid endarterectomy is safer than stenting in the hyperacute period after onset of symptoms. J Vasc Surg. 2015 Jun; 61: 1651.

Forbes TL. Commentary regarding - Trans Atlantic Debate: Whether carotid endarterectomy is safer than stenting in the hyperacute period after onset of symptoms. Eur J Vasc Endovasc Surg. 2015 Jun; 49: 623 & 633.

Forbes TL. Non-atheromatous popliteal artery disease. In: Cronenwett JL, Johnston KW. (eds), Rutherford's Textbook of Vascular Surgery. 8th Edition. 2014: 1801-15. Philadelphia, United States: J. B. Elesevier Science.

Goncalves FB, Hoeks SE, Teijink JA, Moll FL, Castro JA, Stolker RJ, Forbes TL, Verhagen HJM. Risk factors for proximal neck complications after endovascular aneurysm repair using the Endurant stentgraft. Eur J Vasc Endovasc Surg. 2015 Feb; 49(2): 156-62.

Harris JR, Forbes TL. Direct surgical repair of popliteal entrapment. In: Chaikof EL, Cambria RP. (eds), Atlas of Vascular Surgery and Endovascular Therapy. 1st Edition. 2014: 572-7. Philadelphia, United States: Elsevier Science.

Hilgendorf I, Theurl I, Gerhardt LM, Robbins CS, Weber GF, Gonen A, Iwamoto Y, Degousee N, Holderried TA, Winter C, Zirlik A, Lin HY, Sukhova GK, Butany J, Rubin BB, Witztum JL, Libby P, Nahrendorf M, Weissleder R, Swirski FK. Innate Response Activator B Cells Aggravate Atherosclerosis by Stimulating T Helper 1 Adaptive Immunity. Circulation. 2014; 129(16): 1677-87.

Hussain M, Roche-Nagle G. Infected pseudoaneurysm of the superficial femoral artery in a patient with Salmonella enteritidis bacteremia. Can J Infect Dis Med Microbiol. 2014; 24(1): e24-5. PMID: 24421797.

Hussain MA, Lindsay TF, Tan KT, Moloney T. Coiled Embolization of the False Lumen in Complicated Type B Aortic Dissection. Annals Vascular Surgery. 2014 Aug 2.

Hussain MA, Roche-Nagle G. Ruptured infected pseudoaneurysm of the thoracic aorta. CMAJ. 2014 Nov 18; 186(17): 1320. PMID: 25316905. AID: 10.1503/cmaj.140315.

Kayssi A, Petrosoniak A, Levenstadt J, Eisenberg N, Jenkins S, Roche-Nagle G. Rates of elastic compression stockings prescription following the diagnosis of deep venous thrombosis among Canadian emergency physicians and trainees. 2015 May 1; 17(3): 248-52.

Kayssi A, Shaikh F, Roche-Nagle G, Brandao LR, Williams SA, Rubin BB. Management of acute limb ischemia in the pediatric population. J Vasc Surg. 2014 Jul 1; 60(1): 106-10.

Kelvin AA, Degousee N, Banner D, Stefanski E, Le n AJ, Angoulvant D, Paquette SG, Huang SS, Danesh A, Robbins CS, Noyan H, Husain M, Lambeau G, Gelb M, Kelvin DJ, Rubin BB. Lack of group X secreted phospholipase A increases survival following pandemic H1N1 influenza infection. Virology. 2014; 454-455: 78-92.

Kidane B, Plourde M, Chadi SA, Iansavitchene A, Meade MO, Parry NG, Forbes TL. The impact of loss to follow-up on treatment of blunt traumatic thoracic aortic injury. J Vasc Surg. 2015 Jun; 61: 1624-34.

Kiguchi MM, Forbes TL, Teijink J, Pliagas G, Ellozy S, Boeckler D, Makaroun MS. Clinical application and early outcomes of the aortouni-iliac configuration for endovascular aneurysm repair. J Vasc Surg. 2014 Dec; 60(6): 1452-9.

Kolker S, Wunder JS, Roche-Nagle G. Hybrid resection of a giant thigh plexiform neurofibroma. Int J Surg Case Rep. 2015 Jan 9; 8C: 1-4.

Lee K, Leci E, Forbes T, Dubois L, DeRose G, Power AH. Endograft conformability and aortoiliac tortuosity in endovascular abdominal aortic aneurysm repair. J Endovasc Ther. 2014 Oct; 21(5): 728-34.

Lee K, Tang E, Dubois L, Power AH, DeRose G, Forbes TL. Durability and survival are similar after elective endovascular and open repair of abdominal aortic aneurysms in younger patients. J Vasc Surg. 2015 Mar; 61(3): 636-41.

Lindsay TFL, Tan KT, Noël-Lamy M. Covered stent in the superior gluteal artery in a hybrid approach to treat internal iliac artery aneurysm: a technical note. Journal of Vascular and Interventional Radiology. 2015 Mar 30.

Logan AG, Diaconita V, Ing DJ, Oreopoulos GD, Floras JS, Rajan DK. Acute renal failure after renal denervation. Journal of Vascular and Interventional Radiology. 2015 Mar; 26(3): 451-452.



Malinowski A, Maxwell C, Mathew S, Rubin BB, Gandhi S, SIlversides C. Pheochromocytoma in a Pregnant Woman With Prior Traumatic Aortic Injury. The Green Journal. 2015 Apr 13.

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Naylor AR, Forbes TL. Commentary regarding - Trans Atlantic Debate: Whether venous perforator surgery reduces varicose vein recurrences. Eur J Vasc Endovasc Surg. 2014 Sep; 48(3): 246-7.

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Roy T, Forbes TL, Wright GA, Dueck AD. Burning bridges: mechanisms and implications of endovascular failure in the treatment of peripheral arterial disease. J Endovasc Ther. 2015 May.

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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. 2015 Feb.

Sidahmed AM, Leon AJ, Banner D, Kelvin AA, Rowe T, Boudakov I, Degousse N, Rubin BB, Kelvin DJ. CXCL14 deficiency does not impact the outcome of influenza or Escherichia coli infections in mice. The Journal of Infection in Developing Countries (JIDC). 2014 Oct; 15(8(10)): 1301-6.

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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 Jun.

Tse LW, Lindsay TF, Roche-Nagle G, Oreopoulos GD, Ouzounian M, Tan K-T. Radiofrequency in situ fenestration for aortic arch vessels during thoracic endovascular repair. Journal of Endovascular Therapy. 2015 Feb; 22(1): 116-121.

Wheatcroft MD, Lindsay TF, Lossing A. Two cases of arteriovenous fistula formation between the external iliac vessels following endovenous laser therapy. Vascular. 2014 Dec 22; 22(6):464-7.

#### **Invited Visits**

Forbes, Thomas Lawrence: Canadian Society for Vascular Surgery, Toronto, Ontario, Canada, Sep 2014. 1) Invited Lecturer: Open repair of thoracoabdominal aneurysms is superior to fenestrated EVAR: For the motion. 2) Plenary Session Moderator.

Forbes, Thomas Lawrence: Endoluminaries Symposium, Toronto, Ontario, Canada, Dec 2014. Invited Lecturer: Update on trials for acute type B aortic dissections.

Forbes, Thomas Lawrence: Health Canada - Scientific Advisory Committee on Medical Devices used in the Cardiovascular System, Ottawa, Ontario, Canada, Nov 2014. Invited Speaker: Aortic dissections.

Forbes, Thomas Lawrence: National Capital Vascular Surgery Symposium, Ottawa, Ontario, Canada, May 2015. Invited Lecturer: Is the celiac artery expendable (selective vs routine revascularization)?

Forbes, Thomas Lawrence: Pacific NorthWest Endovascular Conference, Seattle, Washington, United States, May 2015.

1) Invited Lecturer: Complications From EVAR: What Can Be Done to Avoid Them? 2) Section Moderator.

Forbes, Thomas Lawrence: VEITH Symposium, New York, New York, United States, Nov 2014. Invited Lecturer: Popliteal artery aneurysms: factors that predict complications of endovascular aneurysm repair and when it is contraindicated.

Forbes, Thomas Lawrence: Winnipeg Vascular and Endovascular Symposium, Winnipeg, Manitoba, Canada, Apr 2015. 1) Invited Lecturer: Top 10 Vascular Surgery Papers of 2014. 2) Invited Lecturer: Academic vascular surgery - What I know now that I wish I knew then. 3) Session Moderator, Vascular Academia Keynote Lectures.

Lindsay, Thomas F: Canadian Endoluminaries Symposium, Canada, Dec 2014. Presenter: Staging Thoracoabdominal Aneurysms: What is the evidence?

Lindsay, Thomas F: Canadian Society of Vascular Nursing (CSVN), Toronto, Ontario, Canada, Sep 2014. Presenter: Advanced Endovascular Interventions for Aortic Pathology.



Lindsay, Thomas F: Canadian Society of Vascular Surgery, Toronto, Ontario, Canada, Sep 2014. Presenter: Debate: "Endovascular Repair of Thoracoabdominal Aneurysms is Superior to Open Repair".

Roche-Nagle, Graham: 6th Pediatric Interventional Radiology Symposium, Toronto, Ontario, Canada, Oct 2014. Invited Speaker: Surgical DVT Treatment Invited Talk.

Roche-Nagle, Graham: Atlantic Vascular Meeting, Halifax, Nova Scotia, Canada, Aug 2014. Invited Speaker: 1) Experience with an International Quality. 2) Endovascular Surgery: Tips, tricks and escapes.

Roche-Nagle, Graham: Canadian Society for Vascular Surgery Annual Meeting, Toronto, Ontario, Canada, Sep 2014. Presenter: Perfusion Angiography with Indocyanine Green Fluorescence in Patients with Critical Ischemia.

Wooster, Douglas Lawrence: AVID, New York, New York, United States, 22 Nov 2014. Invited Speaker: 1) A Taxonomy of ECA Flow - Pattern Findings and Their Relevance in Patient Outcomes. 2) An 'Evidence-Based' Vascular Ultrasound Training Curriculum for Sonographers and Medical Students.

Wooster, Douglas Lawrence: Canadian Conference on Medical Education, Vancouver, British Columbia, Canada, 26-27 Apr 2015. Presenter: 1) An Analysis of Specialists' Use of a Maintenance of Certification Program and Lessons for Future Engagement. 2) Assessing "Uncertainty" in Resident Trainees in a Seminar Setting - Application of a Script Concordance Model. 3) Faculty Development Strategies for Improving Presentation Skills: Documenting Impact of Interventions.

Wooster, Douglas Lawrence: VITO, Ontario, Canada, 28 Mar 2015. Invited Speaker: 1) Introduction and Objectives. 2) Standards and Guidelines in Vascular Ultrasound Update. 3) Jonathan Cardella Point: Counter point. 4) Understanding ECA Findings. 5) Arterial Case Challenge. 6) POCUS for Venous Disease. 7) Duplex Studies for Aortic Aneurysms. 8) Non - Aneurysm Aortic Studies. 9) Luc Dubois Point: Counter point. 10) Luc Dubois Aortic Image Challenge.

Wooster, Douglas Lawrence: Winnipeg Vascular and Endovascular Meeting, Division of Vascular Surgery, Department of Surgery, University of Manitoba, Winnipeg, Manitoba, Canada, 25 Apr 2015. Invited Speaker: How to do a Proper Venous Valve Incompetence Exam.

# **Research and Investigations**

Developing a Vascular Ultrasound Training Curriculum. Canadian Society for Vascular Surgery, John L Provan Award. Wooster D, Wooster E. (\$5,000.00 CAD, Sep 2014 - Aug 2015).

Online Surgical Education: Does It Continue to Play a Role? *University of Toronto*, *David Fear Fellowship*. Wooster D. (\$2,000.00 CAD, May 2014 - Apr 2015).

PMCC Innovation Grant for "Validation of a pre-operative risk assessment tool for delirium in vascular surgery patients". PMCC Innovation Fund. Sytra R, Elgie-Watson J, Flockhart L, Lindsay T, Tse L. (\$82,086.00 CAD, Jul 2014 - Jun 2016).

Prognostic value of perfusion angiography with indocyanince green fluorescence in patients with critical ischemia. *PMCC Innovation Grant 2014. Roche-Nagle G.* (\$48,836.00 CAD, Dec 2014 - Dec 2016).

Residency Training in Venous Disease Management Fails to Address Practice Needs. Canadian Society for Vascular Surgery, Sigvaris President's Award. Wooster D, Wooster E. (\$1,500.00 CAD, Sep 2014 - Aug 2015).

The Peter Munk Cardiac Center, Innovation Fund Grant. Byrne JS. (\$37,000.00 CAD, 2014).

### **Honours Received**

Oreopoulos, George: University of Toronto Surgical Skills Centre at Mt Sinai Hospital Education Award, University of Toronto, Vascular Surgery, Dept of Surgery, Faculty of Medicine, Toronto, Ontario, Canada. Jul 2014

Oreopoulos, George: Wightman-Berris Academy Individual Teaching Excellence Award - Undergraduate, University of Health Network. Dept of Surgery, Faculty of Medicine. Jun 2015.

Tse, Leonard: Cook Research Award, Canadian Society for Vascular Surgery. 2015

Wooster, Douglas Lawrence: Colin R Woolf Excellence in Teaching, Continuing Education and Professional Development, Vascular Surgery, Dept of Surgery, Faculty of Medicine, Toronto, Ontario, Canada. Jul 2015.

Wooster, Douglas Lawrence: John L Provan Education Award, Canadian Society for Vascular Surgery, Vascular Surgery, Dept of Surgery, Faculty of Medicine, Vancouver, British Columbia, Canada. Jul 2014 - Sep 2015



Women's College Hospital John L. Semple, Surgeon-in-Chief

#### **Division Heads:**

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

### **Important Accomplishments**

**CLINICAL:** The Surgical Services Program is a dynamic innovative program that is responsive to an internal and external environment. Our mandate is to be a leader in Academic Ambulatory Surgery. The program is built on the partnerships with internal and external stakeholders which facilitate our ability to be leaders in Ambulatory Surgery. 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.

**RESEARCH**: Through 2014-2015, the eight core surgeons at Women's College Hospital have over 18 active research grants (including CIHR) and over 64 publications. As in previous years they are all engaged in a variety of clinical, educational and basic research activities. Several of them supervise residents and fellows in projects and graduate degree programs.

**TEACHING:** The experience rated by undergraduate, residents, fellows and the Continuing Medical Education (CME) 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 have developed a new ambulatory general surgery rotation with introduction of weekly guided reflective practice. Dr. Devon has developed multiple educational activities including the Endocrine Surgery Journal Club, Department of Surgery Book Club, Ethics Quality of Care Rounds. The Division of Plastic Surgery continues to host fellows through the Allergan Breast Fellowship Program.

# **New Programs**

With the capacity to expand our surgical programs with ten state of the art operating rooms, WCH continues to grow though its various partnerships including collaboration with the Toronto Central LHIN around alleviating pressure points within the system. New programs that will be commencing in the fall include Otolaryngology, Hand Program and Soft Tissue.

# Recruitments

Tim Dwyer, Orthopedic, Sports Medicine and Arthroscopy surgeon has joined Women's College Hospital with a cross appointment at Mt. Sinai Hospital. Tim's surgical practice encompasses open and arthroscopic surgery of the knee and shoulder. His primary research focus is on the assessment of surgical competence in Competency Based Medical Education, which is the basis of his PhD thesis at IMS.

### Retirements

After 40 years at Women's College Hospital (WCH), Dr. Lavina Lickley, surgeon, researcher and co-founder of the Henrietta Banting Breast Centre was honored for her services with a retirement tea on November 28th 2014. Dr. Lickley has been recognized for several professional and academic accomplishments, including co-founding the Henrietta Banting Breast Centre in 1977 and leading two breast cancer prevention trials – as well as supporting many other studies. In addition to her thyroid and breast surgical duties, she later became a professor at U of T and a breast cancer researcher. Dr. Lickley, who held the position of Chief of Surgery at WCH from 1989-1998, considers her proudest academic moment becoming the first female surgeon in Canada to become a full professor in 1991.



# Division of General Surgery

Dr. T. Cil	Assistant Professor
Dr. K.M. Devon	Assistant Professor

### **Publications**

Abdallah F, Morgan PJ, Cil T, Escallon J, Semple J, Chan V. Comparing the DN4 tool with the IASP grading system for chronic neuropathic pain screening after breast tumor resection with and without paravertebral blocks: a prospective 6-month validation study. Pain. 2015 Apr; 156(4): 740-9.

Cordeiro E, Jackson T, Elnahas A, Cil T. Is Breast Surgery for Metastatic Breast Cancer Safe?: An analysis of the NSQIP database. Annals of Surgical Oncology. 2014 Oct 21; 10: 3167-72.

Devon KM, Bernstein M. Neurosurgical Innovation. In: Ammar A, Bernstein M (eds), Neurosurgical Ethics in Practice: Value-based Medicine. 2014: 171-180. Heidelberg: Springer.

Devon KM. A surgeon's reflections on reflection in surgery. In: Peterkin A, Brett-MacLean P (eds), Keeping Reflections Fresh. 2015. United States: Kent State Press.

**Devon KM.** Becoming the Surgeons of the Future. AMS Pheonix (eds), 2014 Oct. Canada. The AMS Pheonix Project Blog. URL: http://theamsphoenix.ca/blog/?p=55.

Devon KM. What does caring mean when it comes to social media in medicine. AMS Pheonix (eds), 2015 Feb 17. Canada. The AMS Pheonix Project Blog. URL: http://theamsphoenix.ca/blog/?p=100.

Devon KM, Lerner-Ellis JP, Ganai S, Angelos, P. Ethics and Genomic Medicine, How to Navigate Decisions in Surgical Oncology. Milas, M (eds), Journal of Surgical Oncology. 2014. United States.

Foley N, O'Mahony M, Lehane E, Cil T, Corrigan M. A qualitative content analysis of breast cancer narratives hosted through the medium of social media. British Journal of Medicine and Medical Research. 2014 Dec 27; 6(5): 474-483.

Kulasegaram K, Woods N, Knickle K, Wright F, Cil T. Teaching the Breast Examination Using Critiques. The Clinical Teacher. 2014 Dec 3.

Suri M, MckNeally M, Devon KM. Withholding tragic knowledge may lead to a tragic death: a palliative care perspective: Reply. World Journal of Surgery. 2014 Dec. 38, Issue 12 (2014): 3292.

Yakov B, Kayssi M, DiBernardo A, Hicks C, Devon KM. Do Emergency Physiucians and Medical Students Find it Unethical to 'Look up' their patients on Facebook or Google? Western Journal of Emergency medicine. 2015 Feb 25; (1): 1-7.

### **Invited Visits**

Cil, Tulin: Association for Medical Education in Europe (AMEE), Milan, Italy, Aug 2014. Invited Speaker: The "F" Word in Medical Education Research: Bring back Sex/Gender and Feminism into the conversation.

Devon, Karen Michelle: ACCADA, Toronto, Ontario, Canada, 7 Oct 2014. Keynote Speaker: Tweet or dare? Social media and ethics in the world of academic health care. Yearly conference.

# **Research and Investigations**

Adapting Psychological Skills to Surgery: A response to physician stress and burnout. Canadian Physician Health Institute. Moulton CA, Deshauer S, Cil T, Sonnadara R, Mutabdzic D. (\$36,740.00 CAD, Jul 2014 - Jul 2015).

An Online Enhanced Education Tool for Young Women Newly Diagnosed with Breast Cancer. Women's College AFP. Cil T, Stephen J, Quan ML. (\$29,985.00 CAD, May 2015 - May 2016).

Nipple Delay Prior to Nipple Sparing Mastectomy: A Pilot Randomized Control Trial. *Plastics Surgery Foundation*. *Platt J, Zhong T, Hofer S, Cil T.* (\$10,000.00 CAD, Jul 2014 - Jul 2015).

Residents' Experiences with Research During Their Post-Graduate Training: A Qualitative Study. Royal College of Physicians and Surgeons of Canada, CanMeds Research and Development Grant. Cil T, Devine L. (\$22,544.00 CAD, Aug 2014 - Aug 2016).

Transformative Learning Impact of Surgical Ethics Quality of Care Rounds. Arnold P. Gold Foundation. Devon KM, Snelgrove R, Ng S. (\$2,000.00 USD, Jun 2015 - Nov 2015).

# **Honours Received**

Devon, Karen Michelle: Individual Teaching Excellence, Wightman-Berris Academy. Dept of Surgery, Faculty of Medicine. Jul 2014 - Jun 2015.



# Division of Orthopaedics

Dr. J. Chahal Assistant Professor
Dr. T. Dwyer Assistant Professor

Dr. J. Theodoropoulos Assistant Professor (Division Head)

#### **Publications**

De Maio P, White L, Bleakney R, Menezes RJ, Theodoropoulos JS. Diagnostic Accuracy of an iPhone DICOM Viewer for the Interpretation of Magnetic Resonance Imaging of the Knee. Clinical Journal of Sports Medicine. 2014 Jul 1; 24(4): 308-314.

Dwyer T, Petrera M, Ogilvie-Harris D, Chahal J, Theodoropoulos JS. Trans-Subscapularis Portal versus Low-Anterior Portal for Low Anchor Placement on the Inferior Glenoid: A Cadaveric Shoulder Study With CT Analysis. Arthroscopy: The Journal of Arthroscopic and Related Surgery. 2014 Aug 8; 31(2): 209-214.

Kroell A, Marks P, Chahal J, Hurtig M, Dwyer T, Whelan D, Theodoropoulos JS. Microfracture for chondral defects: assessment of the variability of surgical technique in cadavers. Knee Surgery Sports Traumatology and Arthroscopy. 2014 Dec 23.

Leroux T, Wasserstein D, Dwyer T, Ogilvie-Harris DJ, Marks PH, Bach BR Jr, Townley JB, Mahomed N, Chahal J. The epidemiology of revision anterior cruciate ligament reconstruction in Ontario, Canada. Am J Sports Med. 2014 Nov; 42(11): 2666-72.

MacKechnie M, Chahal J, Wasserstein D, Theodoropoulos JS, Henry P, Dwyer T. Repair of Full-Thickness Rotator Cuff Tears in Patients ged Younger Than 55 Years. Arthroscopy: The Journal Arthroscopic and Related Surgery. 2014 Oct; 30(10): 1366-1371.

Mollon B, Griffin AM, Ferguson PC, Wunder JS, Theodoropoulos JS. Combined arthroscopic and open synovectomy for diffuse pigmented villonodular synovitis of the knee. Knee Surgery Sports Traumatology and Arthroscopy. 2014 Oct

Semple J, Sharpe S, Murnaghan L, Theodoropoulos J, Metcalf K. Using a Mobile App for Monitoring Post-Operative Quality of Recovery of Patients at Home: A Feasibility Study. JMIR Mhealth and Uhealth. 2015 Jan 27.

Sermer C, Kandel R, Chahal J, Theodoropoulos JS. The addition of platelet-rich plasma to scaffolds used for cartilage repair: a review of human and animal studies. Arthroscopy: The Journal of Arthroscopic and Related Surgery. 2015 Jan 27.

Sheth U, Theodoropoulos J, Abouali J. Use of 3D Printing for Preoperative Planning in the Treatment of Recurrent Anterior Shoulder Instability. Arthroscopic Techniques. 2015 Mar 5.

Theodoropoulos JS, Petrera M, DeCroos A, Park S, Kandel R. Mechanical Stimulation Improves Integration of Tissue Engineered Cartilage In Vitro. Knee Surgery Sports Traumatology and Arthroscopy. 2014 Aug 31. PMID: 25173505.

Wolfstadt JI, Cole BJ, Ogilvie-Harris DJ, Viswanathan S, Chahal J. Current concepts: the role of mesenchymal stem cells in the management of knee osteoarthritis. Sports Health. 2015 Jan; 7(1): 38-44.

# **Invited Visits**

Theodoropoulos, John: Current Concepts in Sport Medicine, Toronto, Ontario, Canada, 11 Sep 2014. Invited Speaker: The Role of Biologics in Sport Medicine.

### Research and Investigations

Mesenchymal Stromal Cells in the treatment of knee osteoarthritis. *University Health Network Arthritis Program*. Chahal J, Viswanathan S, Ogilvie-Harris D, Mohamed N, Marshall W. (\$500,000.00 CAD, 2015).

# Division of Plastic & Reconstructive Surgery

Dr. M.H. Brown	Associate Professor
Dr. J.L. Semple	Professor (Division Head)

### **Publications**

Abdallah FW, Morgan PJ, Cil T, Escallon J, Semple J, Chan VW. Comparing the DN4 tool with the IASP Grading System for Chronic Neuropathic Pain Screening After Breast Tumor Resection with and without Paravertebral Blocks: A Prospective Six-month Validation Study. Pain. 2015 Jan.

Armstrong KA, Coyte PC, Semple JL. The First Smartphone Application for Microsurgery Monitoring: SilpaRamanitor. Plastic and Reconstructive Surgery. 2015 Feb; 135(2): 458e.



Armstrong KA, Davidge KM, Brown MH, Morgan PJ, Li M, Cunningham L, Semple JL. Quality of recovery in women undergoing autogenous breast reconstruction in an ambulatory setting. Plastic Reconstructive Surgery. 2014 Oct; 134(4 Suppl 1): 90.

Armstrong KA, Semple JL, Coyte PC. Replacing ambulatory surgical follow-up visits with mobile app home monitoring: modeling cost effective scenarios. Journal of Medical Internet Research. 2014 Sep; 22(16(9)): e213.

Dwyer T, Hynes M, Leroux T, Wasserstein D, Nousiainen M, Murnaghan L, Ferguson P, Takahaschi GS, Wadey V, Semple J, Ogilvie-Harris D. How to assess communication, professionalism, collaboration and the other intrinsic Can-MEDS roles in orthopedic residents: use of an objective structured clinical examination (OSCE). Canadian Journal of Surgery. 2014 Aug; 57(4): 230-6.

Govshievich A, Somogyi RB, Brown MH. Conservative mastectomies and immediate reconstruction with the use of ADMS. Gland Surgery. 2014 Nov.

Jansen LA, Backstein RM, Brown MH. Breast size and breast cancer: A systematic review. Elsevier (eds), Journal of Plastic, Reconstructive and Aesthetic Surgery. 2014 Oct 9.

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. PRS Global Open. 2015 Jan 7.

Metcalfe KA, Zhong T, Narod SA, Quan ML, Holloway C, Hofer S, Bagher S, Semple J. A prospective study of mastectomy patients with and without delayed breast reconstruction: Long-term psychosocial functioning in the breast cancer survivorship period. Journal of Surgical Oncology. 2015 Mar; 111(3): 258-264.

Semple JL, Sharpe S, Murnaghan ML, Theodoropoulos J, Metcalfe KA. Using a mobile app for monitoring post-operative quality of recovery of patients at home: a feasibility study. Journal of Medical Internet Research. 2015 Feb 12; 3(1): e18.

Somogyi RB, Brown MH. Outcomes in primary breast augmentation: A single surgeon's review of 1539 consecutive cases. Plastic and Reconstructive Surgery. 2015 Jan; 135(1): 87-97.

### **Invited Visits**

Brown, Mitchell Howard: 31st Annual Atlanta Breast Surgery Symposium - Southeastern Society of Plastic and Reconstructive Surgeons, Atlanta, Georgia, United States, 23 Jan 2015. Invited Speaker: 1) Implant malposition, prevention and correction. 2) Direct to implant breast reconstruction: Patient selection and technique. 3) Single stage correction of the tuberous breast. 4) Observer and commentator - live surgery - Breast Reconstruction with synthetic mesh, implants and fat grafting.

Brown, Mitchell Howard: Allergan, Chicago, Illinois, United States, 11 Oct 2014. Invited Speaker: 1) Two stage approach to alloplastic breast reconstruction. 2) Local round table on the use of shaped breast implants.

Brown, Mitchell Howard: American Society of Aesthetic Plastic Surgeons, Montreal, Quebec, Canada, 16-17 May 2015. Invited Speaker: 1) Instructional Course - Aesthetic breast reconstruction: The new paradigm in breast surgery. 2) Interactive Panel: Solutions to your challenges in breast surgery.

Brown, Mitchell Howard: American Society of Plastic Surgeons, Chicago, Illinois, United States, 12-13 Oct 2014. 1) Presenter: Quality of recovery in women undergoing autogenous breast reconstruction in an ambulatory setting. 2) Invited Speaker: Autoaugmentation mastopexy.

Brown, Mitchell Howard: Atlantic Society of Plastic Surgery, Fredericton, New Brunswick, Canada, 13 Sep 2014. Invited Speaker: 1) Direct to implant breast reconstruction. 2) Direct to implant breast reconstruction: Indications and techniques.

Brown, Mitchell Howard: LifeCell, Toronto, Ontario, Canada, 17 Oct 2014. Invited Speaker: 1) Fat injection to the breast and a new system for fat collection. 2) Direct to implant breast reconstruction with alloderm. 3) Co-Chair: LifeCell Summit on breast reconstruction.

Brown, Mitchell Howard: London Breast Meeting, London, London, City of, United Kingdom, 5-6 Sep 2014. 1) Invited Speaker: Surgical technique: How to carry out an augmentation/mastopexy. 2) Invited Speaker: My approach to implant selection in breast augmentation. 3) Panel Moderator: Longevity in breast reduction and mastopexy. 4) Invited Speaker: Managing breast asymmetry.

Brown, Mitchell Howard: Paris Breast Rendez-vous, Paris, France, 27-28 Mar 2015. Invited Speaker: 1) The right plane: subglandular, subfascia or dual plane. 2) Moderator session Breast Augmentation. 3) Managing infections in prosthetic breast surgery. 4) My most difficult case.

Semple, John Laurie: American Society for Reconstructive Microsurgery, Bahamas, 26 Jan 2015. Speaker: Enhanced Recovery after Surgery: Post-op monitoring with mobile app.

Semple, John Laurie: Canadian Breast Cancer Foundation, Ontario, Canada, 12-13 Feb 2015. Vice Chair - Grant Review Panel.

### **Research and Investigations**

Replacing ambulatory clinic follow-up with remote home monitoring using smartphone in breast reconstruction patients: Is it cost-effective? *Canadian Insitute of Health Research. Semple JL, Bhatia RS, Coyte P, Armstrong K.* (\$39,903.00 CAD, Mar 2014 - Mar 2016).

# Division of Urology

Dr. E. Grober

Assistant Professor

### **Publications**

Grober ED, Krakowsky Y. Hypo active Sexual Desire Disorder in Men. In: Sexual Health in the Couple: Management of Sexual Dysfunction in Men and Women. 2014 Oct.

Grober ED. Testosterone Deficiency and Replacement: Myths and Realities. Canadian Urological Association Journal (CUAJ). 2014 Jul. 2014;8(7-8)Suppl 5;pS145.

Samplaski MK, Yu C, Kattan MW, Lo KC, Grober ED, Zini A, Lau S, Jarvi KA. Nomograms for Predicting Changes in Semen Parameters in Infertile Men After Varicocele Repair. Fertility & Sterility. 2014 Jul.

Samplski M, Lo K, Grober ED, Jarvi K. Finasteride use in the male infertility population: effects on semen and hormone parameters. Journal of Urology. 2014 Sep; 192(3):884.

Samplski M, Loai Y, Wong K, Lo K, Grober ED, Jarvi K. Testosterone Use in the Male Infertility Population: Prescribing Patterns and Effects on Semen and Hormone Parameters. Journal of Urology. 2014 Sep; 192(3):884.

#### **Invited Visits**

Grober, Ethan D: OMA Endocrine Forum, Toronto, Ontario, Canada, Mar 2015. Invited Speaker: Update on Testosterone Deficiency and Replacement.

Grober, Ethan D: Toronto Diabetes Summit, Toronto, Ontario, Canada, Sep 2014. Invited Speaker: Clinical Management of Testosterone Deficienct and Metabolic Dysfunction.

Grober, Ethan D: Canadian Urological Association - Men's Health Summitt, Toronto, Ontario, Canada, Jan 2015. Presenter: Testosterone Deficiency & Replacement - Cardiovascular Risks.

# **Research and Investigations**

An Interactive E-Learning Platform to Enhance Teaching and Learning of Loupe Microsurgical Skills. Sick Kids Hospital AFP. Bagli D, Grober ED, Odeh R, Penna F. (\$10,000.00 CAD, Oct 2014 - Oct 2015).

Development and Validation of a Comprehensive Program of Education and Assessment of the Fundamentals of Micro Surgery (FMS). Women's College Hospital AFP. Grober ED, Bagli D, Semple J, Brown M. Jarvi KA. (\$14,000.00 CAD, Oct 2014 - Oct 2015).

Symptomatic and Biochemical Response to Testosterone Replacement Therapy among Men with Low-Normal Testosterone Levels. *Paladin Labs. Grober ED.* (\$5,000.00 CAD, Jan 2015 - Dec 2015).

# Dinner with the Skeptical Scalpel



# **Division Of Anatomy**

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

### **Publications**

Bin NR, Jung CH, Kim B, Chandrasegaram P, Turlova E, Zhu D, Gaisano H, Sun HS, Sugita S. Chaperoning of closed syntaxin-3 through Lys46 and Glu59 in domain 1 of Munc18 proteins is indispensable for mast cell exocytosis. Journal of Cell Science. 2015 Mar 20; 128(10): 1946-1960.

Chen W, Barszczyk A, Turlova E, Deurloo M, Liu B, Yang B, Rutka J, Feng ZP, Sun HS,. Inhibition of TRPM7 by carvacrol suppresses glioblastoma cell proliferation, migration and invasion. Oncotarget. 2015 Apr 19.

Chen WL, 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 PI3K/Akt and MEK/ERK Signaling Pathways. Marine Drugs. 2015 Apr 22; 13 (2015): 2505-2525.

Chen WL, Xu BF, Xiao AJ, Liu L, Fang XY, Liu R, Turlova E, Barszczyk A, Zhong X, Sun CLF, Britto LRG, Feng ZP, Sun HS. TRPM7 Inhibitor Carvacrol Protects Brains from Neonatal Hypoxic-Ischemic Injury. Molecular Brain. 2015 Feb 19; 8 (2015): 1-11.

Chinchalkar SJ, Pipicelli JG, Agur A, Athwal GS. Zone III flexor tendon injuries - A proposed modification to rehabilitation. J Hand Ther. 2014 Dec 20. PMID: 26089286. AID: 10.1016/j.jht.2014.11.008. pii: S0894-1130(14)00180-X. doi: 10.1016/j.jht.2014.11.008.

Galan A, Dergham P, Escoll P, de-la-Hera A, D'Onofrio PM, Magharious MM, Koeberle PD, Frade JM, Saragovi HU. Neuronal injury external to the retina rapidly activates retinal glia, followed by elevation of markers for cell cycle re-entry and death in retinal ganglion cells. PLoS ONE. 2014 Jul 1; 9(7): e101349.

Giangregorio LM, S. McGill, J. D. Wark, J. Laprade, A. Heinonen, M. C. Ashe, N. J. MacIntyre, A. M. Cheung, K. Shipp, H. Keller, R. Jain, A. Papaioannou. 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.

Huang S, Chen WL, Pang J, Pei Z, Wang GL, Sun HS. Effects of marine compound xyloketal B on neuroprotection and potential drug development. Journal of Coastal Life Medicine. 2015 May 7; 3 (2015)(6): 429-432.

Laprade J. Clinical Tid Bits. Orthopedic Division Review. 2015 Mar.

Laprade J. Reversing the Bend so we don't Break. Canadian Physiotherapy Association's 30 Reps Series (online) (eds), 2015 Mar 11.

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.

Lee D, Kim S, Jackson K, Fiume E, Agur A. A practical approach to in vivo quantification of physiological cross-sectional area of human skeletal muscle. Journal of Biomechanics. 2015.

Li Z, Mogk JPM, Lee D, Bibliowicz J, Agur AM. Development of an architecturally comprehensive database of forearm flexors and extensors from a single cadaveric specimen. Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization. 2015 Jan; 3(1).

Lisk K, McKee P, Baskwill A, Agur AM. Student perceptions and effectiveness of an innovative learning tool: Anatomy Glove Learning System. Anat Sci Educ. 2015 Mar; 8(2): 140-8.

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.

Roberts SL, Burnham RS, Ravichandiran K, Agur AM, Loh EY. Cadaveric study of sacroiliac joint innervation: implications for diagnostic blocks and radiofrequency ablation. Reg Anesth Pain Med. 2014 Nov; 39(6): 456-64.

Schwartz SM, Evans C, Agur AM. Comparison of physical therapy anatomy performance and anxiety scores in timed and untimed practical tests. Anat Sci Educ. 2014 Dec 16. PMID: 25516337. AID: 10.1002/ase.1508. doi: 10.1002/ase.1508.

Shabanzadeh AP, Tassew NG, Szydlowska K, Tymianski M, Banerjee P, Vigouroux RJ, Eubanks JH, Huang L, Geraerts M, Koeberle PD, Mueller BK, Monnier PP. Uncoupling Neogenin association with lipid rafts promotes neuronal survival and functional recovery after stroke. Cell Death and Disease. 2015 May 7; 6(e1744): 1-14.

Sun HS, Xu B, Chen W, Xiao A, Turlova E, Alibraham A, Barszczyk A, Bae C, Quan Y, Liu B, Pei L, Sun C, Deurloo M, Feng ZP. Neuronal K(ATP) channels mediate hypoxic preconditioning and reduce subsequent neonatal hypoxic-ischemic brain injury. Experimental Neurology. 2014 Oct 18; 263 (2015): 161-171.

Tassew NG, Mothe AJ, Shabanzadeh AP, Banerjee P, Koeberle PD, Bremner R, Tator CH, Monnier P. Modifying lipid rafts promotes regeneration and functional recovery. Cell Reports. 2014 Aug 21; 8(4): 1146-1159.

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. Molecular Neurobiology. ePub online as December 11, 2014. DOI 10.1007/s12035-014-9032-y: 1-9. Springer. PMID: 25502295.

Walton C, Li Z, Pennings A, Agur A, Elmaraghy A. A 3-dimensional anatomic study of the distal biceps tendon: Implications for surgical repair and reconstruction. The Orthopedic Journal of Sports Medicine. 2015 Jun; 3(6): 1-6.

Warden JM, Roberts SL, Chang Y, Baker R, Boulias C, Ismail F, Agur AM. Neuromuscular partitioning of subscapularis based on intramuscular nerve distribution patterns: implications for botulinum toxin injections. Arch Phys Med Rehabil. 2014 Jul; 95(7): 1408-15.

Weber JF, Agur AM, Fattah AY, Gordon KD, Oliver ML. Tensile mechanical properties of human forearm tendons. J Hand Surg Eur Vol. 2015 May 4. PMID: 25940499. AID: 10.1177/1753193415584715 [doi].

Xiao AJ, Chen WL, Xu BF, Liu R, Turlova E, Barszczyk A, Sun CLF, Liu L, Deurloo M, Wang GL, Feng ZP, Sun HS. Novel Marine Compound Xyloketal B Reduces Neonatal Hypoxic Ischemic Brain Injury. Marine Drugs. 2014 Dec 24; 13 (2015)(1): 29-47.

Zhao LY, Li J, Yuan F, Li M, Zhang Q, Huang YY, Pang JY, Zhang B, Sun FY, Sun HS, Li Q, Cao L, Xie Y, Lin YC, Liu J, Tan HM, Wang GL. Xyloketal B Attenuates Atherosclerotic Plaque Formation and Endothelial Dysfunction in Apolipoprotein E Deficient Mice. Marine Drugs. 2015 Apr 14; 13 (2015): 2306-2326.

### **Invited Visits**

Agur, Anne: American Association of Anatomists Annual Meeting, Boston, Massachusetts, United States, 28 Mar 2015. Speaker: Expanding Program Specific Anatomy Education during Residency: New Opportunities and Challenges.

Laprade, Judi: Alberta PT Association, Alberta, Canada, 19 Feb 2015. Invited Speaker: Physiotherapy's role in the management of osteoporosis and on the Bone Fit program.

Laprade, Judi: Barrie, Ontario, Canada, 25 Apr 2015. Lead instructor: Bone FitTM

Laprade, Judi: Calgary, Alberta, Canada, 12 Jul 2014. Lead instructor: Bone FitTM

Laprade, Judi: Canadian Physiotherapy Association Teleconference, Ontario, Canada, 22 Oct 2014. Invited Speaker: 2F2F New Exercise Guidelines for Osteoporosis.

Laprade, Judi: Kingston, Ontario, Canada, 31 Jan 2015. Lead instructor: Bone FitTM

Laprade, Judi: London, Ontario, Canada, 8 Nov 2014. Lead instructor: Bone FitTM

Laprade, Judi: Markham, Ontario, Canada, 30 May 2015. Lead instructor: Bone FitTM

Laprade, Judi: Mississauga, Ontario, Canada, 5 Jul 2014. Lead instructor: Bone FitTM

Laprade, Judi: Ontario Physiotherapy Association Conference, Ottawa, Ontario, Canada, 27 Mar 2015. Invited Speaker: Exercise and Physical Activity Recommendations for Individuals with Osteoporosis or with Osteoporotic Vertebral Fractures.

Laprade, Judi: Osteoporosis Canada, Ontario, Canada, 4 Jul 2014. Invited Speaker. Beyond the Break Webinar.

Laprade, Judi: Owen Sound, Ontario, Canada, 7 Mar 2015. Lead instructor: Bone FitTM.

Laprade, Judi: Peterborough, Ontario, Canada, 15 Nov 2014. Lead instructor: Bone FitTM.

Laprade, Judi: Sault Ste Marie, Ontario, Canada, 13 Sep 2014. Lead instructor: Bone FitTM.

Laprade, Judi: St Catherines, Ontario, Canada, 21 Mar 2015. Lead instructor: Bone FitTM.

Laprade, Judi: Toronto, Ontario, Canada, 17 Apr 2015. Lead instructor: Bone FitTM.

Laprade, Judi: Toronto, Ontario, Canada, 6 Dec 2014. Lead instructor: Bone FitTM.

Laprade, Judi: Waterloo, Ontario, Canada, 7 Feb 2015. Lead instructor: Bone FitTM.

Laprade, Judi: Windsor, Ontario, Canada, 13 Jun 2015. Lead instructor: Bone FitTM

Sun, Hong-Shuo: Brock University, St. Catharine, Ontario, Canada, 16 Dec 2014. Invited Speaker: Hypoxic preconditioning provides neuroprotection in neonatal hypoxic-ischemic brain injury.

Sun, Hong-Shuo: Chinese University of Hong Kong, Hong Kong, 14 Nov 2014. Invited Speaker: Drug Development Targeting Ion Channels for Neuroprotection against Stroke.

Sun, Hong-Shuo: Eye Research Center, Sun Yat-Sen University, Guangzhou, Guangdong, China, 12 Nov 2014. Invited Speaker: Drug development for potential treatment in neonatal hypoxic-ischemic brain injury.

Sun, Hong-Shuo: Federal University of Sao Paulo, São Paulo, Brazil, 18 Mar 2015. Invited Lecturer: In-vivo models for studying neuroprotection in cerebral ischemia and stroke.

Sun, Hong-Shuo: Nanjing Medical University, Nanjing, Jiangsu, China, 10 Nov 2014. Invited Speaker: Targeting Ion Channels for Potential Stroke Treatment.

Sun, Hong-Shuo: Southern Medical University, Guangzhou, Guangdong, China, 11 Nov 2014. Invited Speaker: Ion Channels as Therapeutic Targets for Neuroprotection in Stroke.

Sun, Hong-Shuo: Sun Yat-Sen University, Guangzhou, Guangdong, China, 12 Nov 2014. Invited Speaker: PSD-95 Inhibitor in Neuroprotection against Neonatal Stroke.

Sun, Hong-Shuo: University of Hong Kong, Hong Kong, 15 Nov 2014. Invited Speaker: Neuroprotective Effects of PSD-95 Inhibitor in Hypoxic-Ischemic Brain Injury.

Sun, Hong-Shuo: University of Sao Paulo, São Paulo, Brazil, 19 Mar 2015. Invited Lecturer: TRPM7 inhibitor carvacrol protects brain from neonatal hypoxic-ischemic injury.

# **Research and Investigations**

CIHR China-Canada Joint Health Research Initiative. Canadian Institutes of Health Research. Sun HS. (\$225,000.00 CAD, Jan 2014 - Dec 2016).

Collaborative Efforts in Drug Development for TRPM7 channel blockers in Treatment of Brain Diseases and Disorders. Burroughs Wellcome Fund, BWF 2015 Travel Grant. Sun HS. (\$5,000.00 USD, May 2015 - Dec 2016).

Neuroprotective peptides for glaucoma. CIHR, Proof of Principle- Phase I. Koeberle PD. (\$150,000.00 CAD, Apr 2015 - Mar 2016).

Neuroprotective Peptides for the treatment of blindness. *MaRS Innovation*, *POP. Koeberle PD*. (\$25,000.00, Apr 2014 - Mar 2015).

PHuman: Parametric multiscale modeling and simulation of human anatomy. NSERC Collaborative Research and Development Grant One Year Extension. Agur A, Fels S, Doroudi M, Faure F, Gilles B, Hannam A, Nielsen P, Payan Y, Khan A, Autodesk Canada Inc. (\$200,000.00 CAD, 2015 - 2016).

Promoting neural regeneration with stem cell based therapies: A novel source of autologous human neural stem cells for transplantation. CIHR. Morshead CM, Danacause N, Fehlings MG, Mendez IM, Shoichet MS. (\$250,000.00 2014-2019) Synthius. GRAND NCE. Agur A, Fels S. (\$97,690.00 CAD, 2015).

The role of chloride channel CIC-3 in cerebral ischemia and its therapeutic potential in stroke. CIHR. Sun HS, Wang GL. (\$75,000.00 2014-2016)

### **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. Faculty of Medicine. 2015.

# Michael Dan receives Order of Ontario



# Sender Herschorn Chair of DAC



# Research in Education

Dr. S. Kitto Assistant Professor
Dr. R.R. Sonnadara Assistant Professor
Dr. N. Woods Assistant Professor

#### **Publications**

Baghdady M, Carnahan H, Lam EWN, Woods NN. Dental and Dental Hygiene Students' Diagnostic Accuracy in Oral Radiology: The Effect of Diagnostic Strategy and Instructional Method. Journal of Dental Education. 2014; 78(9): 1279-85.

Baghdady M, Carnahan H, Lam EWN, Woods NN. Test-enhanced learning and its effect on comprehension and diagnostic accuracy. Medical Education. 2014; 48(2): 181-188.

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.

Belmont PJ, Jiang P, McKee TD, Xie T, Isaacson J, Baryla NE, Roper J, Sinnamon MJ, Lee NV, Kan JL, Guicherit O, Wouters BG, O'Brien CA, Shields D, Olson P, VanArsdale T, Weinrich SL, Rejto P, Christensen JG, Fantin VR, Hung KE, Martin ES. Resistance to dual blockade of the kinases PI3K and mTOR in KRAS-mutant colorectal cancer models results in combined sensitivity to inhibition of the receptor tyrosine kinase EGFR. Sci Signal. 2014 Nov 11; 7(351): ra107

Hall JN, Woods NN, Hanson MD. Is Social Sciences and Humanities (SSH) Premedical Education Marginalized in the Medical School Admission Process? A Review and Contextualization of the Literature. Academic Medicine: Journal of the Association of American Medical Colleges. 2014; 1. AID: doi:10.1097/ACM.0000000000000284.

Kulasegaram KM, Min C, Howey E, Neville A, Woods NN, Dore K, Norman G. The Mediating Effect of Context Variation in Mixed Practice for Transfer of Basic Science. Advances in Health Sciences Education. 2014. DOI 10.1007/s10459-014-9574-9.

Kulasegaram KM, Wright F, Knickle K, Woods NN, Cil T. Teaching the Breast Examination Using Critiques. The Clinical Teacher. 2015. doi: 10.1111/tct.12368.

Mylopoulos M, Woods NN. Preparing medical students for future learning using basic science instruction. Medical Education. 2014; 48(7): 667-673.

Paneduro D, Pink LR, Smith AJ, Chakraborty A, Kirshen AJ, Backstein D, Woods NN, Gordon AS. Development, implementation and evaluation of a pain management and palliative care educational seminar for medical students. Pain Research & Management: The Journal of the Canadian Pain Society. 2014; 19(5): 230-235.

Rowland P, Kitto S. Patient Safety and Professional Discourses: Implications for Interprofessionalism. Journal of Interprofessional Care. 2014 Jul 1; 28(4): 331-338.

Tolsgaard M, Ku C, Woods NN, Kulasegaram KM, Brydges R, Ringsted C. Quality of randomized controlled trials in medical education reported between 2012 and 2013: a systematic review protocol. BMJ Open. 2014; 4(e005155).

Woods NN, Mylopoulos M. On clinical reasoning research and applications: redefining expertise. Medical Education. 2015; 49: 543.

Yeung E, Kulasegaram KM, Woods NN, Hodges B, Carnahan H. Development of a new assessment rubric for a short-answer test of clinical reasoning in orthopaedic manual physical therapy (OMPT). Physiotherapy. 2015 May; 101: e1690-e1691.

Yeung E, Woods NN, Dubrowski A, Hodges B, Carnahan H. Sensibility of a new instrument to assess clinical reasoning in post-graduate orthopaedic manual physical therapy education. Journal of Manual and Manipulative Therapy. 2014; 20(2). DOI: 10.1016/j.math.2014.10.001.

# **Invited Visits**

Kitto, Simon: AMEE 2014 Excellence in Education, 'The 21st Century Teacher'., Milano, Italy, 2 Sep 2014. Speaker: Kitto S, Marshall S, McMillan S, Wilson S, Shearer W. Activation issues in the rapid response system: An analysis of professional and interprofessional socio-cultural factors.

Kitto, Simon: BSA Medical Sociology 2014 Annual Conference, Birmingham, United Kingdom, 11 Sep 2014. Speaker: Kitto S, McMillan S, Shearer W, Buist M, Grant R, Finnigan M, Ramsay W, Marshall S. Activation issues in the rapid response system: An analysis of professional and interprofessional socio-cultural factors.

Kitto, Simon: Province College of Health Professions Claudiana, Bolzano, Italy, Sep 2014. Keynote Speaker: Crucial competences of IPC in a fast changing health care sector.

Kitto, Simon: The Australian & New Zealand Association for Health Professional Educators (ANZAHPE), 'Developing health professional educators: Connecting science & theory with learning for clinical practice'., Gold Coast, Queensland, Australia, 10 Jul 2014. Speaker: Kitto S. Context and terminology in continuing education: Improving the use of interventions in education and research.

Kitto, Simon: Workshop on Implementation and effect of clinical guidelines. Glostrup Hospital, Glostrup, Denmark, 8 Sep 2014. Keynote Speaker: The importance of sociocultural factors on the implementation of clinical guidelines.

Sonnadara, Ranil: 69th Annual Meeting of the Canadian Urological Association (CUA), St. John's, Newfoundland and Labrador, Canada, 1 Jul 2014. Presenter: Validation of an Intraoperative Assessment Tool for Evaluation and the Provision of Feedback during Robotic-assisted Radical Prostatectomy Training.

Woods, Nicole N: American Association of Colleges of Pharmacy Annual Meeting, Grapevine, Texas, 29 Jul 2014. Keynote Speaker: The Critical Interplay Between Basic and Clinical Sciences: How Better Basic Science Improves Clinical Decision-Making.

Woods, Nicole N: Association of Biochemistry Course Directors Annual Meeting, Santa Fe, New Mexico, United States, 4 Apr 2015. Keynote Speaker: Making Basic Science Visible.

Woods, Nicole N: International Association of Medical Science Educators (IAMSE), San Diego, California, United States, 16 Jun 2015. Presenter: Making an Expert: Using Theories of Expertise to Enhance Basic Science Teaching.

Woods, Nicole N: University of Georgia, Athens, Georgia, United States, 25 Feb 2015. Invited Speaker: Basic Science Integration.

Woods, Nicole N: University of Iowa, 13 Nov 2014. Invited Speaker: How we know what isn't so: Recent research on the role of basic science in the development of expertise.

Woods, Nicole N: University of Iowa, Carver College of Medicine, Iowa, United States, 13-14 Nov 2014. Facilitator: 1) Basic Science Integration. 2) Expertise Effects and Clinical Reasoning.

Woods, Nicole N: Western Unviersity, San Diego, California, United States, 16 Apr 2015. Invited Lecturer: Integration of Basic & Clinical Sciences.

# **Research and Investigations**

DEXA Machine- Body fat mass Composition. Toronto Western Research Institute. (\$30,000.00 CAD, Apr 2014 - Mar 2015).

Enhancing Integration of Basic Science through Assessments: Creating Test-Enhanced Learning for Integration. *Medical Council of Cancada Research. Kulasegaram KM*, *Pittini R*, *Wood T*, *Woods NN*. (\$37,400.00 CAD, Jul 2014 - Jun 2015).

Exploring continuity, integration, context and curriculum during Longitudinal Integrated Clerkship (LIC) Training. Education Development Fund, U of T. Weyman K, Graves L, Bernstein S, Hawa R, Woods NN, Martimianakis T, Mylopoulos M, Kulasegaram K, Nyhof-Young J, Wright S, Zirkle M, Pittini R. (\$19,075.00 CAD, Jul 2014 - Jun 2015).

Exploring parent-health care provider decision making practices for children with complex health care needs receiving home care services. The Hospital for Sick Children, Norman Saunders Complex Care Initiative (NSCCI). LeGrow K, Cohen E, Espin S, Gibson B, Kitto S, Nicholas D. (\$26,152.00 CAD, Jan 2014 - Dec 2014).

Learning in Place to Help Seniors Age in Place: The Virtual Home Health Care Curriculum. Woods NN, Ng S, McKay S, Whitehead C, Rochon P, Gold K, Hart C, Campbell D, Jenkins K. (\$99,487.00 CAD, Apr 2015 - Dec 2015).

# Michael Fehlings, Gallie Day 2015



# **Cross Appointments**

Dr. A.J. Baker	Anaesthesia	Dr. C. Lumsden	Medicine
Dr. B. Bapat	Laboratory Medicine and Pathobiology	Dr. A. Macdonald	Medicine
Dr. P. Birek	Dentistry	Dr. J. McGlade	Medical Biophysics
Dr. A. Campbell	Medicine	Dr. D.A.G. Mickle	Laboratory Medicine and Pathobiology
Dr. J. Carson	Family and Community Medicine	Dr. M. Milner	Rehabilitation Sciences
Dr. W.A. Cassar-Demajo	Anaesthesia	Dr. W. Montanera	Medical Imaging
Dr. A. Daar	Public Health Sciences	Dr. J. Mullen	Laboratory Medicine and Pathobiology
Dr. A. Damyanovich	Medical Imaging	Dr. A. Narold	Public Health Sciences
Dr. J.E. Davies	Dentistry	Dr. M. Ojha	Rehabilitation Sciences
Dr. A.D. DePetrillo	Obstetric and Gynaecology	Dr. K.P.H. Pritzker	Laboratory Medicine and Pathobiology
Dr. E. Diamandis	Laboratory Medicine and Pathobiology	Dr. P. Ritvo	Public Health Sciences
Dr. R.J. Eby	Medicine	Dr. A. Romaschin	Laboratory Medicine and Pathobiology
Dr. V.L. Fornasier	Laboratory Medicine and Pathobiology	Dr. J. Rutka	Otolaryngology
Dr. A. Fox	Medical Imaging	Dr. A. Sahgal	Radiation Oncology
Dr. J. Freeman	Otolaryngology	Dr. G. Sandor	Dentistry
Dr. R. Gilbert	Otolaryngology	Dr. A. Slutsky	Medicine
Dr. M. Greenberg	Pediatrics	Dr. D. Stewart	Psychiatry
Dr. M.D. Grynpass	Laboratory Medicine and Pathobiology	Dr. G. Tait	Anaesthesia
Dr. P.J. Gullane	Otolaryngology	Dr. R. Talwar	Dentistry
Dr. B. Harvey	Public Health Sciences	Dr. K.G. terBrugge	Medical Imaging
Dr. B. Hinz	Dentistry	Dr. T. van der Kwast	Laboratory Medicine and Pathobiology
Dr. J. Irish	Otolaryngology	Dr. Q. Wan	Physiology
Dr. J. Irvine	Psychiatry	Dr. I. Weller	Public Health Sciences
Dr. G. Jackowski	Laboratory Medicine and Pathobiology	Dr. L. White	Medical Imaging
Dr. M.G. Johnston	Laboratory Medicine and Pathobiology	Dr. R. Willinsky	Medical Imaging
Dr. R. Kandel	Laboratory Medicine and Pathobiology	Dr. L. Wilson-Pauwels	Biomedical Communications
Dr. W. Kucharczyk	Medical Imaging	Dr. I. Witterick	Otolaryngology
Dr. G.A. Levy	Medicine		