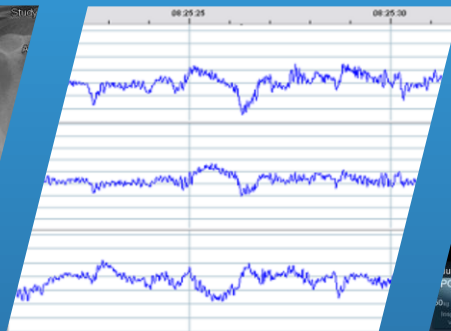
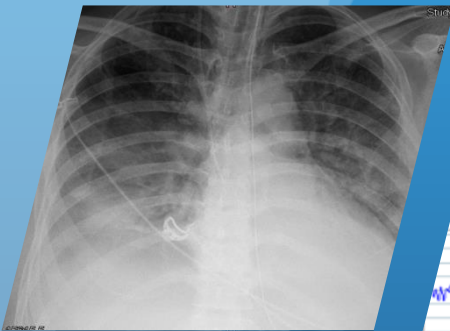




# INTERDEPARTMENTAL DIVISION OF CRITICAL CARE

Department of Medicine, Surgery,  
Anaesthesia and Paediatrics



## 2014 - 2015 Bi-annual Report



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## MESSAGE FROM THE DIVISION DIRECTOR

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Laurent Brochard, MD

Dear Members of the Interdepartmental Division of Critical Care Medicine,

I am pleased and proud to present the bi-annual report for January 1, 2014 – December 31, 2015, for the Division.

Last year we released our Strategic Plan and we decided that our annual report would be moved to 2016, looking back at the years 2014 and 2015 in the same report. So, it is my privilege and pleasure to kick-off our “big” bi-annual report to share what we collectively achieved in the Division over the last two years.

This is a very exciting time because - aside from our very busy daily clinical work - we decided altogether to take a big leap forward to have a strategic plan display our goal of achieving a common and ambitious vision. We have decided to announce “work in progress”. This includes our plan to build a strong division, encompassing education, research, quality improvement, faculty development, and international affairs. We now have a logo and templates for our slides and poster presentations, and we hope to make it meaningful and indicative of the best education, research, and quality of care in Critical Care Medicine.

The Strategic Report can be found on our website (Google, “Critical Care Toronto” to be directed to the site):

[http://www.criticalcare.utoronto.ca/Assets/Critical+Care+Digital+Assets/Critical+Care/Critical+Care+Digital+Assets/Strategic\\_Report/IDCCM+Strategic+Plan+2015\\_2020.pdf](http://www.criticalcare.utoronto.ca/Assets/Critical+Care+Digital+Assets/Critical+Care/Critical+Care+Digital+Assets/Strategic_Report/IDCCM+Strategic+Plan+2015_2020.pdf)

The current website now displays reasonable and updated information. Our project is of course to have an even better website but we acknowledge that it will probably take another year to achieve this goal.

As an Interdepartmental Division, we have a Program Director, an Associate Director for Educational Research & Scholarly Development, and a Paediatric Program Director. In 2015, following our strategic thinking, we decided that we needed a Research Director, as well as (concluded at the final stage) an Associate Research Director. We decided to form a Steering Committee for the Division to be as inclusive and transparent as possible (anyone can attend these meetings via teleconference). Our Steering Committee has representatives for Quality Improvement and Clinical Care as we think that achieving city-wide QI projects will considerably reinforce our vision. We also have representatives for international affairs - which we think is one of our hallmarks. We would like to improve our mentorship program and facilitate Faculty

Development, another key topic for our Division. All of you may not be familiar with the way our University works, and it is important to understand that, within the Faculty of Medicine, having the features described above really speaks to our ambition and our breadth. We must make it an efficient reality but the exceptional quality and involvement of the members of our Division, the variety of skills, knowledge, motivation, and ideas (so crucial!) put forward by our members makes this goal highly realistic. We need to work, collaborate, discuss, socialize, and network together. Events like the Clinical Research in Progress sessions and city-wide events (Visiting Professor Program, Physiology Rounds, Art Slutsky Day, etc.) are essential to making us feel like a cohesive group and to finding our individual accomplishments within the IDCCM.

There are so many people to thank for what has been achieved, beyond those who contributed to writing this report. I hope you will enjoy reading it. I want to give a special thank you to our Administrative Assistants who help all of us in our endeavor to better communicate and connect: Louisa Matela for IDCCM and CCPR; Meredith Malloy for CRIP and VPs; Stephanie Nardella for the Adult Program; and Kathy Boyko for the Paediatric Program.

I really want to thank all of you for giving me the privilege of being the Director of such an exciting Division!



Laurent Brochard, MD  
Division Director, Interdepartmental Division of Critical Care Medicine  
Department of Medicine, University of Toronto

## **MEMBERS OF THE EXECUTIVE COMMITTEE**

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### **Chair**

Dr. Laurent Brochard, St. Michael's Hospital

### **Department Heads**

Dr. Andrew Baker, St. Michael's Hospital

Dr. Brian Cuthbertson, Sunnybrook Hospital

Dr. Niall Ferguson, University Health Network and Mt. Sinai Hospital

Dr. Peter Laussen, The Hospital for Sick Children

## **MEMBERS OF THE STEERING COMMITTEE**

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Dr. Andre Carlos Amaral, Sunnybrook Hospital, Staff Intensivist

Dr. Claudia dos Santos, St. Michael's Hospital, Staff Intensivist

Dr. Robert Fowler, Sunnybrook Hospital, Staff Intensivist

Dr. Margaret Herridge, University Health Network – Toronto General Hospital, Staff Intensivist

Dr. Brian Kavanagh, The Hospital for Sick Children, Staff Intensivist

Dr. Afrothite Kotsakis, The Hospital for Sick Children, Paediatric Education Program Director

Dr. John Laffey, St. Michael's Hospital, Chief Anesthetist

Dr. John Marshall, St. Michael's Hospital, Staff Intensivist

Dr. Geeta Mehta, Mt. Sinai Hospital, Staff Intensivist

Dr. Christopher Parshuram, The Hospital for Sick Children, Paediatric Intensivist Representative

Dr. Dominique Piquette, Sunnybrook Hospital, IDCCM Associate Director

Dr. Gordon Rubinfeld, Sunnybrook Hospital, Staff Intensivist

Dr. Damon Scales, Sunnybrook Hospital, Staff Intensivist

Dr. Jeffrey Singh, University Health Network – Toronto Western Hospital, Staff Intensivist

Dr. Arthur Slutsky, St. Michael's Hospital, IDCCM Ex-chair

Dr. Andrew Steel, IDCCM Program Director Adult Critical Care Medicine Residency and Clinical Fellowships

## University of Toronto Critical Care Training Programs, 2014

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**Damon Scales, MD, PhD, FRCPC**

The University of Toronto Adult Critical Care Medicine Residency Training Program continues to lead the country in producing the highest quality intensivists and leaders in Critical Care Medicine.

We congratulate last year's graduating class: Drs. Kali Barrett, Mohammed Bawazeer, Andrew Beckett, Preeti Dhar, Brooks Fallis, Keren Mandelzweig, Elliott Owen, Ian Randall, and Shankar Sivananthan. We look forward to following their continued career development and success.

We continue to attract the very brightest candidates, and welcome those that joined our program in July 2014: Drs. Edmond Chau, Michael Kim, Andrew Kuhl, Jonathan Marhong, Ingrid Morgan, Marcello Schmidt, Kevin Shore, and Michael Tylee.

The residency program continues to offer novel educational opportunities to our trainees, thanks to the innovation and dedication of the Program's Education Director, Dr. Simon Abrahamson. During the past academic year, we once again had a simulation series (Dr. Abrahamson), National ACES course (Dr. Abrahamson), leadership course (Drs. Brooks Fallis and Abrahamson), communication workshop (Dr. James Downar), and ethics series (Dr. Neil Lazar). Drs. Abrahamson and Alberto Goffi provided an ultrasound and echocardiography course, and Dr. Eddy Fan organized the UofT Critical Care Journal Club series. Dr. Shelly Dev developed the annual in-training objective structured clinical examination (OSCE). Ms. Meredith Malloy was responsible for all administrative aspects of the Residency Program, and Bernadette Slingerland provided administrative support to the academic half-day program.

The recipients of the annual teaching awards were selected by the critical care residents to acknowledge outstanding faculty. Dr. Simon Abrahamson received the John T. Granton Award for Outstanding Contributions to Teaching and Education (city-wide). The site winners for excellence in teaching were Drs. Michael Christian (Mount Sinai), Jan Friedrich (St. Michael's), Cameron Guest (Sunnybrook), Eddy Fan (Toronto General), Jeff Singh (Toronto Western), and Edgar Hockmann (UofT-affiliated hospitals, Toronto East General).

The Visiting Professor series and Clinical Research in Progress sessions, organized by Dr. Gordon Rubinfeld, continued to be a tremendous success. The Annual Residents' Day was a major achievement, featuring Dr. Keith Walley as Keynote Speaker. Our residents and students presented an impressive 50 abstracts, and 9 of these were selected as oral presentations.

My term as Program Director concluded on December 31, 2014. The past 5 years were highly rewarding for me; it was a great honour to serve in this role. I firmly believe that we run one of the world's very best Critical Care training programs, thanks to the breadth of the educational experience and our incredible education leaders and teaching faculty. I have the utmost confidence that the program will continue to improve, with new leadership and ideas from the incoming Program Director, Dr. Andrew Steel, and the new Associate Program Director, Dr. Dominique Piquette. During this period of transition, I would like to express my sincere gratitude to Dr. Simon Abrahamson for his dedication and outstanding leadership; for more than 15 years he has developed and implemented our incredible academic half-day series. I am also indebted to Ms. Meredith Malloy for her superb skill in providing administrative support as the Residency Program Coordinator during my term. Most importantly, I would like to thank all of our residents, who continually remind us why we choose to work in an academic teaching environment.

## University of Toronto Critical Care Training Programs, 2015

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Andrew Steel, BSc, MBBS, MRCP, FRCA, FFICM, FRCPC

In October 2014 leading educators and trainees joined Damon Scales, then Program Director, to consider ways to improve our trainees' educational experience and better prepare the Program for anticipated changes. Much of the information gathered confirmed what the Division does really well but also highlighted concerns requiring attention – many of which were validated by the Internal Review in March 2015. The outcome of this activity was an improved understanding of the strengths and weaknesses of our training programs. Key themes and strategic priorities emerged to ensure the delivery of a truly world-class educational experience for all of our trainees. I am pleased to report the following progress made in the educational deliverables of the *IDCCM 2015-2020 Strategic Plan*:

### **Critical Care Medicine will span the continuum of medical education**

We have engaged in specific efforts to improve the presence and contribution of Critical Care Medicine faculty locally at University PGME, and nationally at the Royal College. Since July 2015 Christie Lee has been invited to join the Royal College Critical Care Subspecialty Examination Committee, representing UofT. Christie and Dominique Piquette have been recognized for their expertise in Simulation Training and have been invited to join the faculty of the successful Royal College ACES course. In addition to this I have represented the Division locally in the UofT Best Practices Committee for Competency Based Education, and at the Royal College developing the first national CCM “entrustable professional activity” for competency in Organ and Tissue Donation.

### **Enhance collaboration across sites to harmonize education activities across the IDCCM**

In addition to rebranding our academic day as Art Slutsky Day to be more inclusive of all our academic faculty, we have targeted a number of collaborative educational opportunities with other Divisions of the Faculty of Medicine (e.g. Nephrology, Pediatrics, Cardiology, Trauma Surgery) to enhance our academic relationships and share expertise around CanMeds domains.

This year the traditional management framework of the Program, the Residency Committee, was augmented with new specific working groups: the Training Evaluation Committee, and Program Development Committee. These were created to address the needs of our different learning groups and align the overall evaluation process with our University and Royal College responsibilities.



## **Implement recommendations of the Adult Critical Care Medicine City-Wide Fellowship Report**

Our future is the development of a University of Toronto Adult Critical Care Fellowship Program and the inaugural city-wide recruited trainees will begin in July 2017. Before this we needed to first create that program and change culture, awarding fellows equal standing and complementary status to our University of Toronto Royal College Adult Critical Care Residency Program. Fundamental to this change is for trainees themselves to feel they are all part of a single educational program, with identical accountabilities and governance. Therefore much effort has been made to increase opportunities for all clinical fellows to rotate outside traditional practice plan silos, attend teaching events with equal opportunity, participate in formative evaluations, and enjoy mentorship and support of the education leadership. This year we established a Chief Resident, Kevin Shore, and Chief Fellow, Brendan Sloan, to represent all trainees at Divisional and University level. In 2014-15 4% of fellows rotated outside their hospital programs. In 2016-17 all fellows have been offered this opportunity and more than 35% are currently scheduled for “cross-site” training.

## **Strengthen collaborations with affiliated community ICUs**

As a leading Community ICU with many alumni of the IDCCM, Trillium Health Partners have been excellent colleagues in supporting the Residency Training Program, hosting 6 of our senior trainees this year. In addition we have proactively engaged several Faculties from other community sites to lend their expertise to the Academic Half-day Program. This has served not only to afford great teaching but also an introduction to our future graduates as future colleagues.

## **Develop a plan to transition towards competency based training and evaluation in Critical Care Medicine**

With the stewardship of Dominique Piquette our Program Development Committee have developed a transition plan in preparation for the transition to RCPSC competency-by-design. Essential elements of this strategy are: testing several new evaluation tools in 2016-17, securing the support of all Faculty colleagues, engagement and representation at University and national level, and establishing the resources and infrastructure to implement this priority.

## **Advance educational scholarship**

While not all trainees will become researchers, it is a vital part of training in Critical Care Medicine to gain an understanding of academic methods. It is also fundamental to the practice of evidence-based medicine that an intensivist has the ability to critically analyze, share, and improve the quality of care using scientific literature.

To encourage the development of these skills, we formalized the Scholarly Activity component of our curriculum that in the Royal College trainees are required to complete. This now includes rigorous evaluation, regular reporting, a final “defense presentation”, and the unreserved support of many faculty supervisors. Currently we are the only Canadian program to formalize our curriculum in this way.

In addition we have doubled the allowance for trainees to attend scientific meetings and conferences. With the exception of CCCF we no longer mandate external courses, and residents now select those that are most relevant to their career direction and education.

### **Improve the mentorship of Critical Care Medicine Residents and Fellows**

The importance of mentorship for CCM trainees was studied and published by our own trainees, Damon Scales and John Granton in 2014, yet no formal mentorship program exists. We must be cognizant of these needs and the difficulties one can encounter during transitions. Each member of the faculty needs to provide, and receive, good mentorship. The appointment of Dominique Piquette as Associate Director for Educational Research & Scholar Development and Laveena Munshi as Wellness Coordinator are key steps to provide mentorship for scholarly activity, career development and wellness for all trainees in our Division.

Finally I would like to thank the 85 members of our Faculty, national and international guest speakers who have supported the Education Program so far this year. The consistent priority will remain training better doctors for our patients' needs. We will continue to deliver a high-quality, scientifically based, curriculum, be enthusiastic educators at the University of Toronto, and leaders in change at the Royal College.

## Department of Critical Care Medicine, St. Michael's Hospital

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**Andrew Baker, MD, FRCPC**

The Department of Critical Care at St. Michael's Hospital has enjoyed another successful year in its educational, academic and research endeavors. The department's staff continues to strive for excellence within their fields and have earned the recognition and accolades they have received.

Department welcomed Dr. Gerard Curley to its faculty.

### **Honours, Awards and Accomplishments**

- Dr. Andrew Baker
  - Reappointed as Chief of Critical Care at St. Michael's Hospital
  - Elected Vice President of the Physicians Services Incorporated (PSI) Foundation.
- Dr. Laurent Brochard
  - ERS Assembly Lifetime Achievement Award by the Assembly Respiratory Intensive Care ESR Officers
  - SMH Best Teaching Award from University of Toronto IDCCM at the Art Slutsky Day.
- Dr. Gerard Curley's trainee award:
  - Grace Hogan - Basic and Translational Science Award from the IDCCM, an award that recognizes the best submitted abstract for oral presentation.
- Dr. Sara Gray
  - Featured in the Toronto Life Magazine - "Toronto's Best Doctors"
  - Outstanding Clinical Teaching Award from the Emergency Medicine, Faculty of Medicine, University of Toronto. The Emergency Medicine residents select the best clinical teacher of the year, across the city-wide division, based on specific criteria for teaching excellence, mentorship and engagement.
- Dr. Warren Lee
  - Awarded a prestigious infrastructure grant of \$1,000,000 for his Center for advanced dynamic imaging of tissue barriers: cellular processes and molecular interactions from Canadian Foundation for Innovation (CFI).
- Dr. Warren Lee's trainee awards:
  - ❖ Michael Sugiyama
    - Graduate Student Poster Prize from American Physiology Society for his poster presented at Experimental Biology.
    - 1<sup>st</sup> Prize Trainee Oral Presentation Award (Best Oral Presentation on LDL transcytosis project at the Canadian Lipoprotein Conference.
    - PhD Graduate Studentship from Ted Rogers Centre for Hear Research.

- Winner, iBEST Angel's Den Trainee Competition, iBEST (Ryerson/St. Michael's Hospital).
  - Best Poster at the LMP Graduate Student Conference, Department of Laboratory Medicine and Pathobiology.
- Dr. Art Slutsky
- Inaugural Presidential Plenary Lecturer, American Thoracic Society (ATS), Distinction, 110th Annual American Thoracic Society (ATS) International Conference on his lecture, "Evolution and development of mechanical ventilation", recognized as one of the seminal clinical/scientific breakthroughs made during the past century that have revolutionized patient care and research in Pulmonary Medicine.
  - Health Researcher of the Year from Canadian Institutes of Health Research.
  - David Bennett Lectureship, UK Intensive Care Society
  - Engineering Alumni Medal, University of Toronto
- Dr. Natalie Wong - Outstanding Teaching Award from the Department of Medicine, University of Toronto.

Congratulations to Drs. Simon Abrahamson and Goffi for the success of the WINFOCUS Ultrasound Course in April 2015. It was a major success and it represents a significant milestone after relentless pursuit of this goal and importantly it reflects a big vision.

Congratulations to Dr. Haibo Zhang led an international research team composed of researchers from St. Michael's Hospital and The First Affiliated Hospital of Guangzhou Medical University, China that has discovered a key role for the cytokine Midkine in the pathogenesis of fibrosis in ARDS. His paper, titled "Mechanical Stress Induces Lung Fibrosis via Midkine Signaling Pathway," has been electronically published in the American Journal of Respiratory and Critical Care Medicine.

### **Promotions**

Congratulations to Drs. Jan Friedrich and Claudia dos Santos on their promotion as Associate Professors.

### **Education**

Dr. Natalie Wong, previously the Education Director for core residents in the Critical Care Department is now the Postgraduate Education Director for the Department of Medicine and at the same time the Director of Cardiac Arrest Training at St. Michael's Hospital. She also continues to lead simulation education research in developing and maintaining hospital staff code blue skills. Dr. David Hall has been appointed as the Director of Education for core residents in Critical Care Department. In addition to this role, he also is the Course Director for the Respiratory block in the University of Toronto medical school's curriculum. This is a huge undertaking and reflects highly on the respect held for him. Dr. Robert Chen was responsible for developing the clinical fellows teaching program in the CVICU. The program itself is highly successful, and is currently completely booked more than two years in advance.

The Department of Critical Care continues to pursue scientific discovery using novel techniques in its research endeavors, which has led to many successes in the past 2 years. Scientists/Researchers have published 307 publications in peer-reviewed journals, furthering the knowledge translation of their work. This research was, in part, made possible by 50 newly issued research grants both as principal investigators and collaborators in 2014 - 2015. They have also actively participated in the presentation of their research findings on the local, national and international level. There were a total of 93 local, 69 national, and 200 international presentations by the Faculty in the Critical Care Department at St. Michael's Hospital.

## Department of Critical Care Medicine, Sunnybrook Hospital

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**Brian Cuthbertson, MD, ChB, FRCA**

The leadership team for Critical Care Medicine at Sunnybrook Health Sciences Centre remained mostly unchanged in 2014 with Dr. Brian Cuthbertson being reappointed as the Chief of Critical Care Medicine for a further 5 year term. Dr. Gordon Rubinfeld continues to serve as Chief of the Trauma, Emergency and Critical Care Program. Drs. Shelly Dev and Cameron Guest continue to lead the education programme as our Residency Director and Co-Directors of the International Fellowship Program. As of January 1, 2015, Dr. Damon Scales stepped down as the Program Director of the University of Toronto Adult Critical Medicine Training Program, while Dr. Dominique Piquette was appointed as Associate Director, Education Research & Scholar Development for the IDCCM.

We are pleased to welcome to our team Drs. Hannah Wunsch and Louise Rose. Dr. Wunsch was recruited as a staff physician and clinician scientist, with appointments as Associate Professor in the Department of Anesthesiology at the University of Toronto and Scientist in Evaluative Clinical Sciences at the Sunnybrook Research Institute. Dr. Rose is the inaugural holder of the TD Professorship in Critical Care Nursing Research. This new research role is the first of its kind at Sunnybrook and will focus on conducting research to improve clinical outcomes for critical care patients. The aim of the TD Professorship is to create an environment for excellence in critical care nursing that embraces inter-professional care.

### **Research**

In research, the Department enjoyed a number of notable academic accomplishments. In total our department generated 104 peer reviewed publications. Brian Cuthbertson has continued to lead the international SuDDICU collaboration which has now been awarded \$5.2M in Australia and New Zealand and awaits funding decision in Canada. Dr. Gordon Rubinfeld has 17 publications listed this year including a prominent publication in JAMA-Internal Medicine on de-escalation of use of intensive glucose control. He has published several invited editorials including one questioning the value of ARDS prevention and one questioning the feasibility of increasing intensivists training and staffing in the US. Dr. Rubinfeld was invited to participate in the new Surviving Sepsis Guideline committee as well as an International Task Force on redefining sepsis.

Dr. Hannah Wunsch's research focuses on the organization and management of critical care services, with particular foci on international comparisons of critical care, use of large databases to understand resource utilization and long-term outcomes among critically ill patients. She was awarded a CIHR operating grant for her project titled "*Identifying Risk Factors for and Outcomes following Rehospitalizations for Elderly Critically Ill Patients*". Andre Amaral was awarded an Academic Health Sciences Centres' Alternate Funding Plan Innovation Fund Innovation grant for his work on building collaborative relations between healthcare providers and patient families

called “Therapeutic Alliances” (in the ICU) in an effort to enhance information to facilitate decision-making. Damon Scales was the inaugural recipient of the PSIF Graham Farquharson Knowledge Translation Fellowship (2012-2015). He authored 15 publications during 2014, and was the Principal Investigator of the ICE-PACS randomized controlled trial of pre-hospital therapeutic hypothermia (CIHR-funded) and the Preventing Premature Termination of Resuscitation after Cardiac Arrest stepped-wedge cluster randomized controlled trial (PremaTOR; CIHR & HSFC-funded). Louise Rose was the successful recipient of the Respiratory Care and Neuromuscular Disorders grant from Muscular Dystrophy Canada for her study titled: “*Health Service Utilization for Assessment, Monitoring and Management of Respiratory Complications for Individuals with Neuromuscular Disease*”. Dr. Rob Fowler was a Consultant to the World Health Organization (2013-2015), Department of Pandemic and Epidemic Diseases. During the West Africa Ebola Virus Disease Outbreak, he, amongst other things, worked with Dr. Nikki Shindo, the WHO Headquarters lead for clinician deployments and clinical care, was deployed to Guinea and helped establish clinical care at the Donka Hospital Treatment facility, assisted in medical evacuations for exposed and infected health care workers, and carried out an observational study of patients with Ebola virus disease clinical presentation and risk factors for poor outcome. In addition to his scientific work on Ebola being published in the *New England Journal of Medicine*, Dr. Fowler has been covered in the major media including 8 articles in the New York Times.

The Visiting Professorship Program organized by Dr. Gordon Rubinfeld and Meredith Malloy continues to be tremendously successful in attracting international experts in Critical Care to the IDCCM. In 2014 we hosted eight Visiting Professors from across North America. The Clinical Research in Progress sessions continue to provide a supportive environment where investigators can bring research projects for critical evaluation and discussion.

The Critical Care Research Department, led by our Research Manager, Nicole Marinoff, RN continues to support the IDCCM with their participation in industry and academic trials. In 2014, the department received 14 new Research Ethic Board approvals in addition to the 18 that remain open.

### **Education and Quality Improvement**

We pride ourselves on our high quality clinical teaching and in the 2014-2015 academic year, the Department has continued to receive high scores for teaching assessments from both resident and fellowship training attachments.

We are also continuing to develop simulation teaching in technical skills based competencies with increased success. Dr. Shelly Dev continues to create innovative media for education. To date she has published several peer-reviewed videos in the *New England Journal of Medicine* and is currently developing additional videos with them. Her collaborative projects with colleagues in the IDCCM include the media development for the diagnosis of ARDS, communication strategies for patients and families in the ICU and the technology for aiding phonation in patients with chronic tracheostomies. In addition, Dr. Dev has expanded her involvement in formalized teaching beyond undergraduate and postgraduate learners to CME learners to whom she has been delivering seminars on strategies to improve teaching performance.

Dr. Neill Adhikari helped with Ebola-related clinical training at a WHO-organized meeting in Brazzaville, Congo of clinicians and Ministry of Health personnel from 10 at-risk sub-Saharan Africa countries that currently do not have any cases. The training was based on existing WHO guidance of management of severely ill patients in resource-limited settings that was adapted based on Ebola-related considerations and direct experience from treatment centres.

In Quality Improvement, the Department continues to collect data on key quality indicators reflecting our performance. Drs. Andre Amaral and Gordon Rubenfeld published an important paper in the *American Journal of Respiratory and Critical Care Medicine* evaluating the ICU coverage model at Sunnybrook. This paper, and its accompanying editorial, focused on how little we understand about the effect of handing over care from one doctor to the next. Contrary to many expectations, it was discovered that, at Sunnybrook, cross coverage by a skilled team did lead to overnight changes in management, but these changes were associated with improved outcome. This is an active area of investigation for Dr. Amaral who continues to provide quality improvement leadership to the Department.



## Department of Critical Care Medicine, The Hospital for Sick Children

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**Peter Laussen, MD, BS, FCICM**

The Paediatric and Cardiac Intensive Care Divisions continue to be extremely busy with 2,100 admissions for the past academic year. Outcomes remain excellent and comparable to any benchmark for mortality and quality. The quality and safety initiatives within the department continue to be amplified and successful. There are always areas for improvement, and as part of the hospital wide "Caring Safely" program, Dr Annich and Moga are leading initiatives to reduce healthcare acquired conditions.

We were very pleased to recruit 2 new faculty to the Cardiac Critical Care Unit, Dr Michael-Alice Moga and Dr Roxanne Kirsch. We have 3 additional faculty positions to fill during 2016 and this will be an exciting time for the growth and the future of the Department. The education mission has continued under the leadership of Drs. Afrothite Kotsakis and Briseida Mema, and for the next 12 months under Dr Humpl while Dr Kotsakis is on maternity leave. Our fellowship program has been stressed by the volume and complexity of patients over the latter part of 2015, particularly on the cardiac critical care unit; the clinical workload has been excessive and we appreciate very much the efforts and dedication of our fellows helping us meet this demand. We continue to train Fellows from across the world and plan to continue our close relationship with trainees through our Alumni Association. We held our third Alumni meeting at the Pediatric Intensive Care Society meeting in Birmingham, UK. As the host institution, we have been preparing for the 8th World Congress in Pediatric Intensive and Critical Care to be held in June 2016 in Toronto; we are planning workshops and scientific meetings that will appeal everyone across the breadth of critical care medicine.

The department continues to have a national and international impact with staff speaking at various academic forums across Canada and worldwide. Clinical research within the department continues to grow and be active under the direction of Dr. Jamie Hutchison. In the past 2 years we have focused on building a strong infrastructure and have doubled our team members to a total of 22. Joining our team is Dr. Danny Eytan and Andrew Goodwin who are working with data analytics on Dr. Peter Laussen's T3 Platform. We have also added a project manager, 2 coordinators, and more recently a data programmer to help with the workload of our Senior Data Analyst. There have been several successful Grants over the past 2 years. Dr. Anne-Marie Guerguerian received \$617,000 CIHR funding for 3 years for 'Quantifying Brain Injury on Computed tomography in Hospitalized Children: A Prospective Trial'. She also had 2 students receive internal awards totaling \$35,000. Dr. Jamie Hutchison received \$3m Brain Canada Platform Support Grant for 3 years to develop a national Biobank and database for patients with traumatic brain injury. He also received \$1.9m from CIHR for Canadian Traumatic Brain Injury Research Consortium. One of the clinical research fellows under Dr. Hutchison's direction received a 2 year internal award for \$40,000. Dr. Alejandro Floh received \$75,000 from NIH Heart, Lung and Blood Institute Pediatric Heart Networks Scholars Grant to investigate

'Early Nutritional Delivery on Glucose Control, Insulin Resistance and Systemic Inflammation Following Pediatric Cardiac Surgery. We were host to the 2015 CCCTG – Canadian Critical Care Trials Group fall workshop. Over all it has been a highly productive 2 years with over 80 active studies at varying stages and it continues to grow with new physicians joining our staff and anxious to participate in the research program.

## Department of Critical Care Medicine, University Health Network & Mount Sinai Hospital

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**Niall Ferguson, MD, MSc, FRCPC**

The Critical Care programme at University Health Network and Mount Sinai Hospital is a complex structure involving the provision of intensive care across 4 physically separate geographic sites and 2 separate hospital organizations. We have over 20 intensivists working in our three Level-3 medical-surgical ICUs (our MSICU group), and also count on the involvement of our colleagues in the Peter Munk Cardiac Centre who provide care for patients in the Cardio-Vascular ICU (CVICU) and Coronary ICU (CICU) at Toronto General Hospital.

### **Personnel**

Over the course of 2014-2015 several important personnel changes occurred within our group.

New Faculty:           Dr. Elizabeth Wilcox, Clinician-Scientist, TWH  
                              Dr. Alberto Goffi, Clinician Teacher, TWH  
                              Dr. Christie Lee, Clinician-Teacher, MSH  
                              Dr. Michael Detsky, Clinician-Investigator, MSH

Departing Faculty:    Dr. Tom Stewart, MSH  
                              Dr. Michael Christian, MSH

We wish our former colleagues all the best in their future endeavours, while at the same time we are excited to welcome our new team members and look forward to their future successes. The executive committee for our group in 2014-15 was comprised of Drs. Neil Lazar, Jeff Singh, and Stephen Lapinsky serving as Site Directors for Toronto General, Toronto Western, and Mount Sinai, respectively, along with Dr. John Granton as Head, Division of Respiriology, and Dr. Niall Ferguson, Head of Critical Care Medicine.

### **Research**

This was another excellent year for our research group. Our grant and publications records were strong (see individual reports). We participated in numerous studies – some investigator-led from within our group, some investigator-initiated from other CCCTG collaborators, and some from industry. This was also a time of transition for leadership within our research group.

We thank both Dr. Margaret Herridge (UHN) and Dr. Geeta Mehta (MSH) for their many years of excellent leadership of the critical care research programmes at the 2 hospitals. Based on goals set within the group, we set out to build a more integrated research program across all 3 sites, and in 2015 Dr. Eddy Fan was the successful applicant for the position of tri-site Research Director. He is working with research leads from each site - Drs. Wilcox, Detsky, and Del Sorbo – to maximize productivity and efficiency across the group.

### **Education/Innovation**

During 2014-2015, new education leads were appointed at MSH (Dr. Christie Lee) and TWH (Dr. Alberto Goffi) – both of whom have done a phenomenal job of reinvigorating the educational experience for trainees of all levels at these sites. In addition, Dr. Andrew Steel, education lead at TGH, was appointed as Program Director for the IDCCM and given a mandate to oversee education of both critical care residents and fellows across the University. Key quality and innovation initiatives included delirium screening, early mobility projects, Ebola preparedness, extra-corporeal life support, and continuous EEG monitoring.

## Critical Care Canada Forum (CCCF) 2014-2015

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**Niall Ferguson, MD, MSc, FRCPC**

Critical Care Canada Forum (CCCF) is a 3-day conference organized by the Interdepartmental Division of Critical Care Medicine, which focuses on topics that are relevant to the individuals involved in the care of critically ill patients, wherever the patients are located. Internationally recognized, the Critical Care Canada Forum focuses on leading-edge science through informative and interactive sessions, dynamic speakers and numerous exhibitions. The CCCF is a place where doctors, nurses and respiratory therapists can collaborate on shared knowledge across disciplines, departments and institutions.

Critical Care Canada Forum (CCCF) was held as usual both years in late October and early November, continuing in its usual location at the Sheraton Centre Hotel & Convention Centre. The conference proper was preceded by several pre-congress courses, including the popular Residents' Day (co-sponsored by the Canadian Critical Care Society) and workshops on extra-corporeal life support, as well as ultrasound in the ICU.

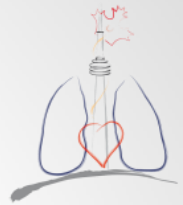
Each year the conference is attended by approximately 1000 participants and features presentations covering many diverse topics including mechanical ventilation, sepsis, ARDS, long-term outcomes and rehab, sedation and analgesia strategies, and systems for improving quality and safety. As usual we had presentations of a number of important randomized trials – including studies on cost-effectiveness of VTE prophylaxis, high-frequency oscillation, non-invasive ventilation, and rehabilitation.

In addition to the strong scientific programme, social aspects of the conference are also highly rated, including the Reception at the Top of the Sheraton. CCCF also has a number of affiliated meetings before and during conference period, including the Canadian Critical Care Society, the Canadian Critical Care Trials Group, and the Canadian Intensive Care Foundation.

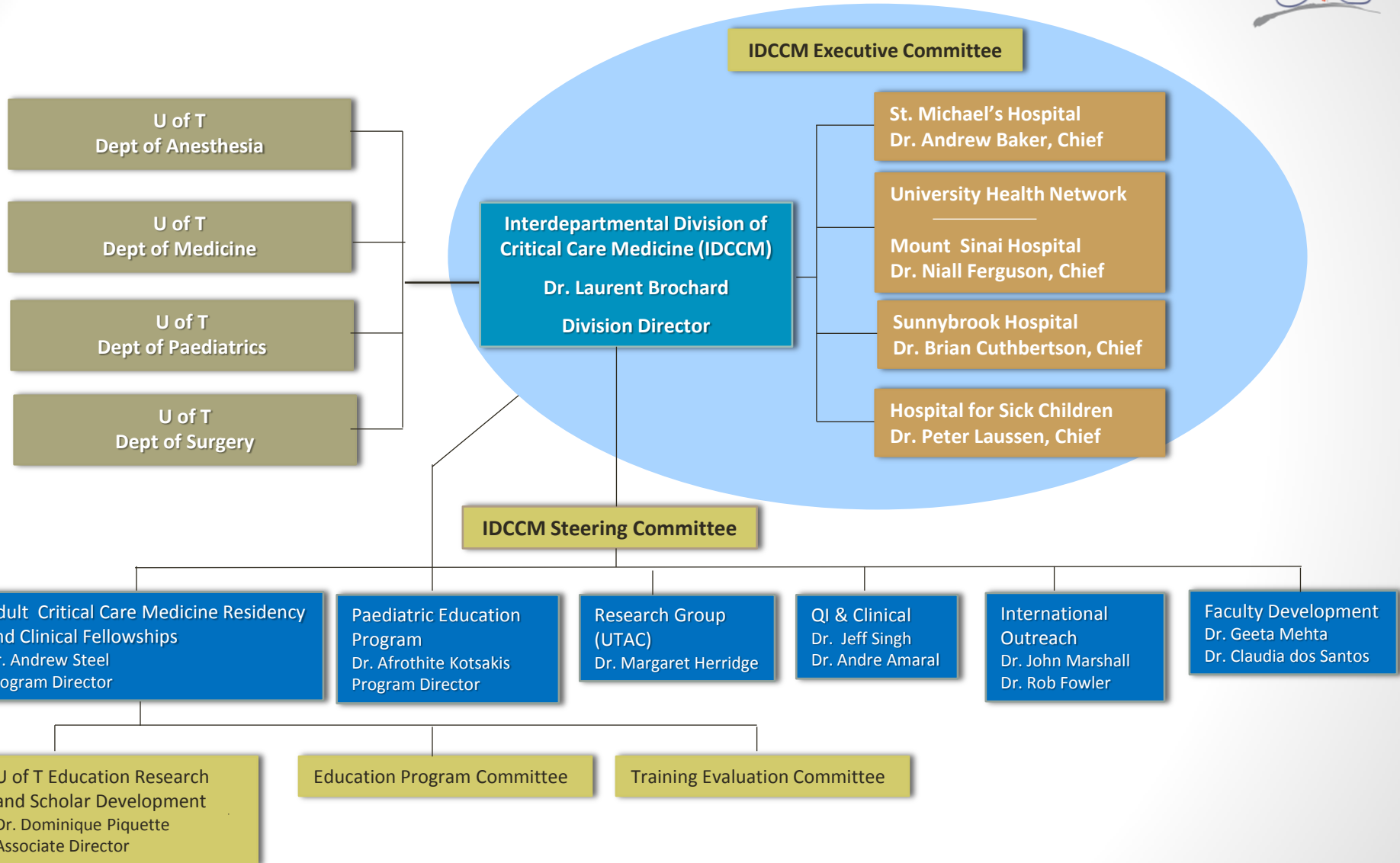
The organizing committee for Critical Care Canada Forum consists of:

Brian Kavanagh (Chair, Organizing Committee); Niall Ferguson (Chair, Scientific Programme); Shelly Dev; Claudia Dos Santos; Rob Fowler; Stephen Lapinsky; John Marshall; Damon Scales; and Art Slutsky. The conferences in 2014 and 2015 were a huge success, and planning is already underway for the upcoming year October 30-November 2, 2016. More details are available at [www.criticalcarecanada.com](http://www.criticalcarecanada.com).

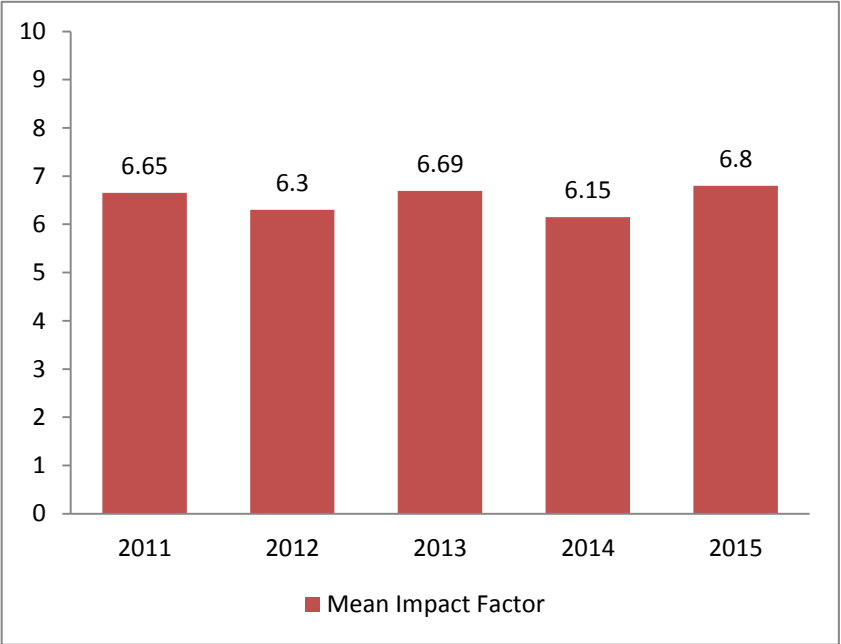
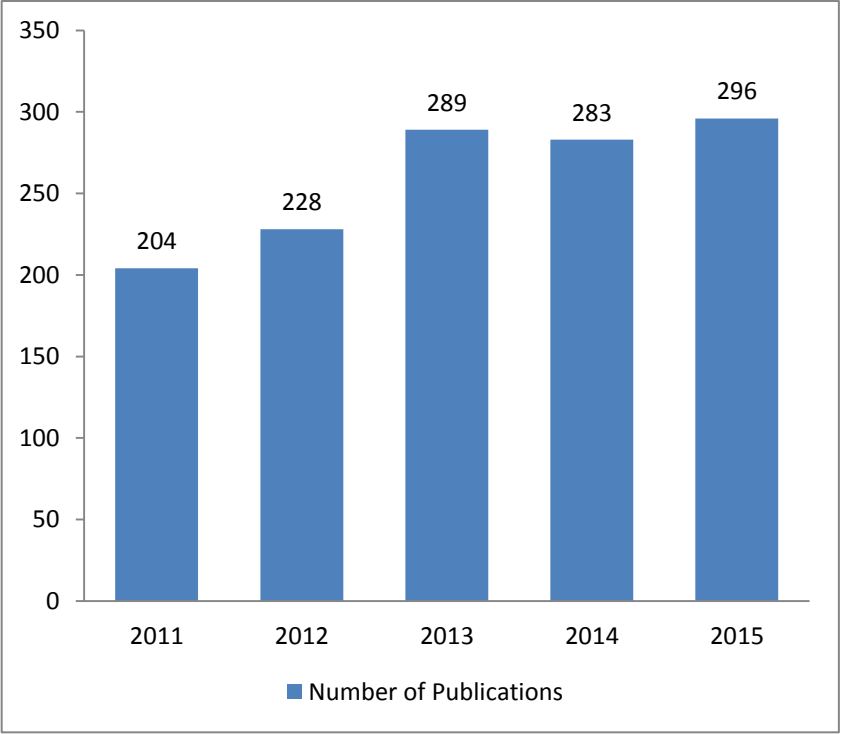
*The Critical Care Canada Forum is where Canada's intensivists put the latest science into practice.*



# U of T IDCCM Organization Chart



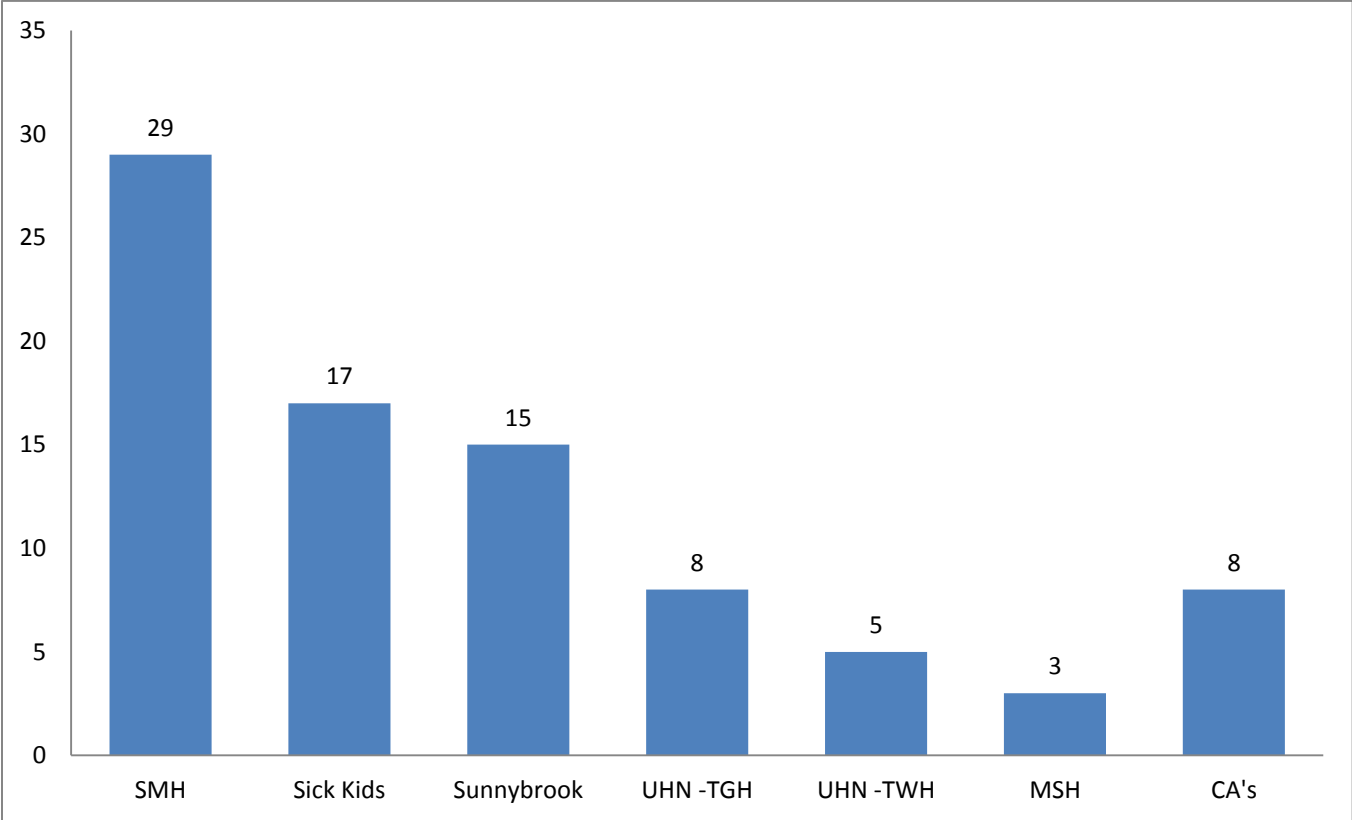
# 5 Year Impact Factor Publication Analysis



# Overall Interdepartmental Summary

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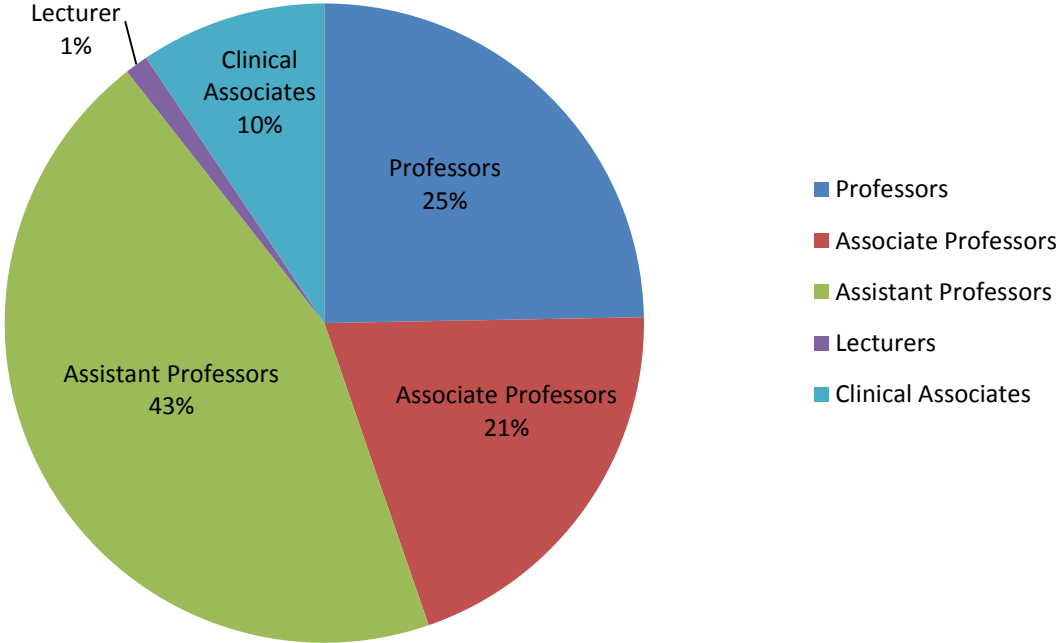
Our interdepartmental division consists of 77 faculty members and 8 clinical associates.





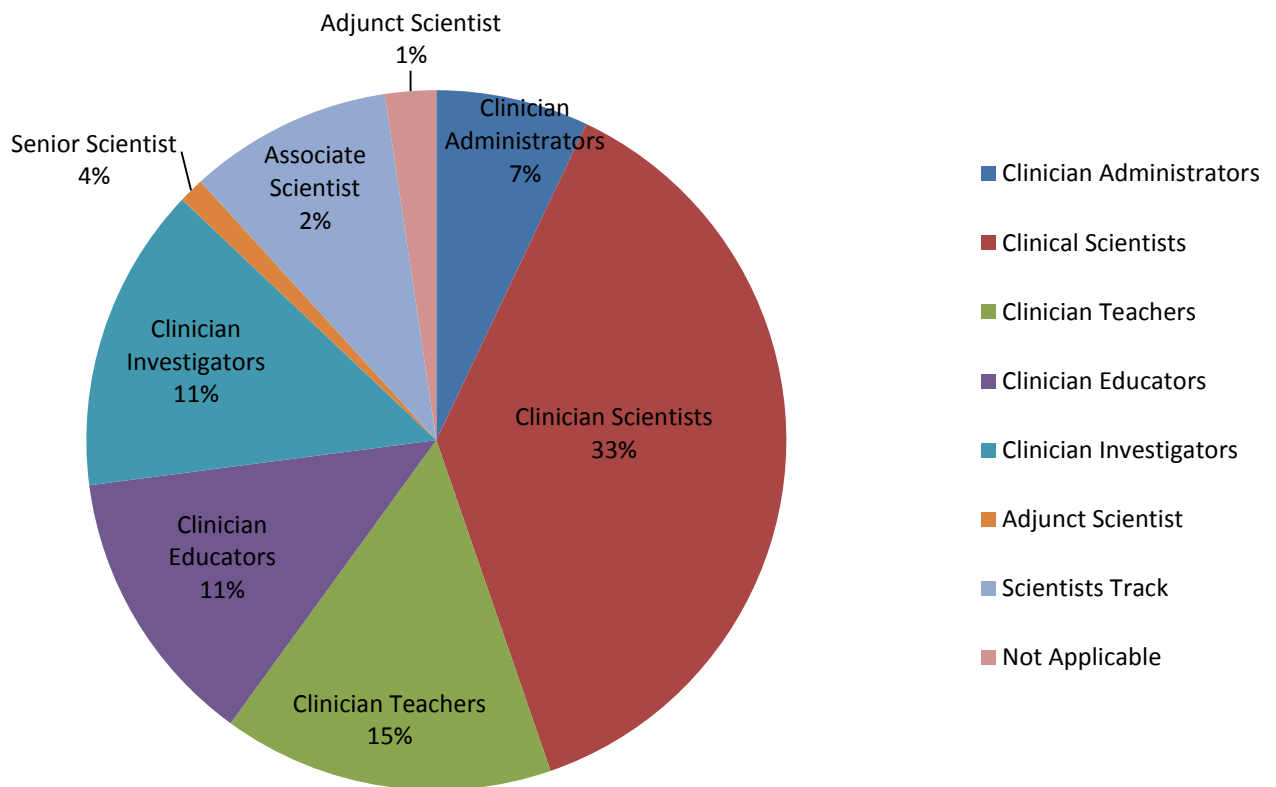
# University Rank Full-Time Faculty

Professors	21
Associate Professors	17
Assistant Professors	38
Lecturer	1
Clinical Associates	8



## Research Job Description Faculty

Clinician Administrators	6
Clinical Scientists	32
Clinician Teachers	13
Clinician Educators	11
Clinician Investigators	12
Adjunct Scientist	1
Scientists Track	8
Not Applicable	2



# APPENDICES

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# Appendix I: Faculty List

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## St. Michael's Hospital

<b>Name</b>	<b>University Rank</b>	<b>Research Rank</b>
Abrahamson, Simon	Associate Professor	Clinician Educator
Ahmed, Najma	Associate Professor	Clinician Educator
Baker, Andrew	Professor	Clinician Scientist
Brochard, Laurent	Professor	Clinician Scientist
Burns, Karen	Assistant Professor	Clinician Scientist
Curley, Gerard	Associate Professor	Clinician Scientist
Darraah, William	Assistant Professor	Clinician Teacher
Dos Santos, Claudia	Associate Professor	Clinician Scientist
Friedrich, Jan	Associate Professor	Clinician Scientist
Gray, Sara	Assistant Professor	Clinician Teacher
Hall, David	Assistant Professor	Clinician Teacher
Hayes, Chris	Assistant Professor	Clinician Teacher
Houston, Patricia	Professor	Clinician Administrator
Kataoka, Mark	Assistant Professor	Clinician Teacher
Klein, David	Assistant Professor	Clinician Scientist
Laffey, John	Professor	Clinician Scientist
Lawless, Bernard	Assistant Professor	Clinician Teacher
Lee, Warren	Assistant Professor	Clinician Scientist
Levene, Richard	Assistant Professor	Clinician Teacher
Marshall, John	Professor	Clinician Scientist

Mazer, David	Professor	Clinician Scientist
Pronovost, Antoine	Assistant Professor	Clinician Administrator
Rigamonti, Andrea	Assistant Professor	Clinician Scientist
Rizoli, Sandro	Professor	Clinician Scientist
Sinderby, Christer	Assistant Professor	Clinician Scientist
Slutsky, Arthur	Professor	Clinician Administrator
Tousignant, Claude	Assistant Professor	Clinician Educator
Wong, Natalie	Assistant Professor	Clinician Teacher
Zhang, Haibo	Professor	Clinician Scientist

## The Hospital for Sick Children

<b>Name</b>	<b>University Rank</b>	<b>Research Rank</b>
Annich, Gail	Professor	Clinician Investigator
Balit, Corrine	Assistant Professor	Clinician Investigator
Cox, Peter	Professor	Clinician Administrator
Floh, Alejandro	Assistant Professor	Clinician Investigator
Guerguerian, Anne-Marie	Assistant Professor	Clinician Scientist
Humpl, Tilman	Associate Professor	Clinician Investigator
Hutchison, Jamie	Professor	Clinician Scientist
Kavanagh, Brian	Professor	Clinician Scientist
Kirsch, Roxanne	Assistant Professor	Clinician Scientist
Kotsakis, Afrothite	Assistant Professor	Clinician Educator
Laussen, Peter	Professor	Clinician Administrator
Mema, Briseida	Assistant Professor	Clinician Educator
Moga, Michael-Alice	Assistant Professor	Clinician Scientist
<i>*Mohseni-Bod, Hadi (left July 2015)</i>	Assistant Professor	Clinician Educator
Parshuram, Christopher	Professor	Clinician Scientist
Schwartz, Steven	Associate Professor	Clinician Investigator
<i>*Sivarajan, Ben (left June 2015)</i>	Assistant Professor	Clinician Investigator

## Sunnybrook Hospital

<b>Name</b>	<b>University Rank</b>	<b>Research Rank</b>
Adhikari, Neill	Lecturer	Clinician Scientist
Amaral, Andre	Assistant Professor	Clinician Scientist
Chapman, Martin	Assistant Professor	Clinician Educator
Cuthbertson, Brian	Professor	Clinician Scientist
Dev, Shelly	Assistant Professor	Clinician Educator
Fowler, Robert	Associate Professor	Clinician Investigator
Guest, Cameron	Associate Professor	-
Piquette, Dominique	Assistant Professor	Clinician Educator
Rose, Louise	Associate Professor	Adjunct Scientist
Rubinfeld, Gordon	Professor	Clinician Scientist
Scales, Damon	Associate Professor	Clinician Scientist
Sinuff, Tasnim	Associate Professor	Clinician Scientist
Smith, Terry	Assistant Professor	Clinician Teacher
Tremblay, Lorraine	Assistant Professor	-
Wunsch, Hannah	Associate Professor	Clinician Scientist

## University Health Network

### *Toronto General Hospital*

<b>Name</b>	<b>University Rank</b>	<b>Research Rank</b>
Del Sorbo, Lorenzo	Assistant Professor	Clinician Investigator
Downar, James	Assistant Professor	Clinician Teacher
Fan, Eddy	Assistant Professor	Clinician Scientist
Ferguson, Niall	Associate Professor	Clinician Scientist
Granton, John	Professor	Clinician Investigator
Herridge, Margaret	Professor	Clinician Scientist
Lazar, Neil	Associate Professor	Clinician Administrator
Steel, Andrew	Assistant Professor	Clinician Educator

### *Toronto Western Hospital*

<b>Name</b>	<b>University Rank</b>	<b>Research Rank</b>
Demajo, Wilf	Assistant Professor	Clinician Teacher
Goffi, Alberto	Assistant Professor	Clinician Teacher
Hawryluck, Laura	Associate Professor	Clinician Educator
Singh, Jeff	Associate Professor	Clinician Investigator
Wilcox, Elizabeth	Assistant Professor	Clinician Scientist



## Mount Sinai Hospital

<b>Name</b>	<b>University Rank</b>	<b>Research Rank</b>
Lapinsky, Stephen	Professor	Clinician Investigator
Lee, Christie	Assistant Professor	Clinician Teacher
Mehta, Sangeeta	Professor	Clinician Investigator

## Clinical Associates

<b>Name</b>	<b>Hospital</b>	<b>Research Rank</b>
Detsky, Michael	Mt. Sinai Hospital	Scientist Track
Goddard, Shannon	Sunnybrook Hospital	Scientist Track
Golan, Eyal	Toronto Western Hospital	Scientist Track
Goligher, Ewan	Mt. Sinai Hospital	Scientist Track
Leligdowicz, Aleksandra	Toronto Western Hospital	Scientist Track
Man, Jeffrey	Toronto Western Hospital	Scientist Track
McCredie, Victoria	Sunnybrook Hospital	Scientist Track
Munshi, Laveena	Mt. Sinai Hospital	Scientist Track

# Appendix II: Summary Activity Reports

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**Dr. Simon Abrahamson (St. Michael's Hospital)**

**Peer-Reviewed Publication**

**Journal Article**

de Oliveira Manoel AL, Turkel-Parrella D, Germans M, Kouzmina E, da Silva Almendra P, Marotta T, Spears J, **Abrahamson S**. Safety of Early Pharmacological Thromboprophylaxis after Subarachnoid Hemorrhage. Canadian Journal of Neurological Science. 41(5): 554-561. **Senior Responsible Author.**

**Invited Lectures and Presentations**

**International**

2014 Ap 30                   **Presenter.** Clinical Outcomes After High-Grade Aneurysmal Subarachnoid Hemorrhage. American Academy of Neurology Annual Meeting. Pennsylvania, Philadelphia, United States. Presenters: de Oliveira Manoel AL, Turkel-Parrella D, Goffi A, McCredie V, Ben-Israel D, Kouzmina E, Spears J, Marotta T .

2014 Feb                   **Presenter.** Unfractionated Heparin for Venous Thromboembolism Prophylaxis in Patients With Aneurysmal Subarachnoid Hemorrhage  
Session Title: Aneurysm and SAH and Other Neurocritical Management.  
International Stroke Conference Moderated Poster Abstracts. San Diego, California, United States. Presenters: de Oliveira Manoel AL, Turkel-Parrella D, Goffi A, McCredie V, Ben-Israel D.

**National**

2014                   **Instructor.** National Acute Care Events National Simulation (ACES) Training Course For Canadian Critical Care Fellows. Royal College of Physicians and Surgeons of Canada. Toronto, Ontario, Canada.

**Dr. Najma Ahmed (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Dedy NJ, Bonrath EM, **Ahmed N**, Grantcharov TP. Structured training to improve nontechnical performance of junior surgical residents in the operating room: a randomized controlled trial. *Annals of Surgery*. 2015 Mar 18;March. :Ann Surg. 2015 Mar 13. (Trainee publication, PhD Student). **Coauthor or Collaborator**.

Nadler A, Escallon J, Ashamalla S, **Ahmed N**, Wright F. Career plans and perceptions in readiness to practice of graduating general surgery residents in Canada: time for a competency based curriculum? *Journal of Surgical Education*. 2015 Mar. 2015 Mar-Apr; 72(2) 2015-11. **Coauthor or Collaborator**.

Bawazeer M, **Ahmed N**, Izadi H, McFarlan A, Nathens A, Pavenski K. Compliance with a Massive Transfusion Protocol (MTP) Impacts Patient Outcome Injury. *Injury*. 2015 Jan;46(1):21-8. 2105 jan;46(1) 21-8. (Trainee publication, Mohameed Bawazeer was a trauma fellow when this study was conducted). **Coauthor or Collaborator**.

Hallet J, Wallace D, Abrahma ES, hall T, **Ahmed N**, Bridge J, Taggar R, DeSouza S, Smith A, Nathens A, Coburn N, Gotlib-Conn L. Optimizing Inter-Professionals Communication in Surgery: Protocol for a Mixed-Methods Exploratory Study. *JMIR Research Protocols*. 2015 Jan;4(1):1-15. **Coauthor or Collaborator**.

Merani S, Kayssi A, **Ahmed N**, Blitz M, Switzer N. Research Productivity of Residents and Surgeons with Formal Research Training. *Journal of Surgical Education*. 2014 Dec. 71(6). **Coauthor or Collaborator**.

Doumouras AG, Keshet I, Nathens AB, **Ahmed N**, Hicks CM. Trauma Non-Technical Training TNT2: the development, piloting and multi-level assessment of a simulation based, interprofessional curriculum for team-based trauma resuscitation. *Canadian Journal of Surgery*. 2014 Oct. 57(5). **Coauthor or Collaborator**.

Nadler A, Escallon J, Ashamalla S, **Ahmed N**, Wright F. Career plans and perceptions in readiness to practice of graduating general surgery residents in Canada: time for a competency based curriculum? *Journal of Surgical Education*. 2014 Apr. **Coauthor or Collaborator**.

**Ahmed N**, Devitt K, Keshet I, Spicer J, Imrie K, Feldman L, Cools-Lartigue J, Kayssi A, Lipsman N, Elmi M, Kulkarni A, Parshuram C, et al. A Systematic Review of the Affects of Resident Duty Hour Restrictions in Surgery: Impact on resident wellness, training and patient outcomes. *Annals of Surgery*. 2014 Mar 25. :1-14. **Principal Author**.

Palter V, **Ahmed N**, Ryzynski A, Smith A, Grantcharov T. Development and Implementation of an evidence-based curriculum for colo-rectal surgery into a surgical residency program. *Journal of Continuing Education in the Health Professions*. 2014 Feb. **Coauthor or Collaborator**.

## Invited Lectures and Presentations

### International

- 2015 Oct 5            **Invited Speaker.** Preserving and advancing surgical education in a world with no time. American College of Surgeons. Chicago, Chile. Presenter(s): Barbara Bass, Helen McRae, Robin McLeod. Invited to speak and be part of a town hall on this topic.
- 2014 Feb             **Presenter.** Implementation of a Tiered Trauma Team Activation System can Improve Identification of Patients who Require Immediate Operative Intervention. Trauma Quality Improvement Program, American College of Surgeons. United States. Presenters: Rezende J.

### Provincial

- 2015 Mar 6           **Invited Speaker.** Surgeon Training and Wellness: What we have learned from the Resident Duty Hours Debate. Alberta Medical Association. Banff, Alberta, Canada. Keynote Address sponsored by the Alberta Medical Association at the Alberta Association of General Surgeons, Annual Scientific Meeting.
- 2014 Sep 19         **Presenter.** General Surgery graduates feel prepared for practice, but is there a practice available? Presenters: Nadler A, Escallon J, Wright F.; Defining needs in improvement of communication: a quantitative and qualitative appraisal of interprofessional pages communication. Presenters: Wallace D, Hallet J, El-Sedfy A, Golib-Conn L, Nathens AB, Ahmed N, Coburn N. Canadian Surgery Forum. British Columbia, Vancouver, Canada.
- 2014 Sep 19         **Invited Speaker.** Acute cholecystitis: operative and non operative management; Resident duty hour restrictions in surgery: impact on training. Canadian Surgery Forum. British Columbia, Vancouver, Canada.
- 2014 Sep             **Presenter.** General Surgery graduates feel prepared for practice, but is there a practice available? Presenters: Nadler A, Escallon J, Wright F.; Defining needs in improvement of communication: a quantitative and qualitative appraisal of interprofessional pages communication. Presenters: Wallace D, Hallet J, El-Sedfy A, Golib-Conn L, Nathens AB, Ahmed N, Coburn N. Royal college of Physicians and Surgeons of Canada. Toronto, Ontario, Canada.
- 2014 Apr             **Invited Speaker.** Innovations in Trauma Education. Trauma Association of Canada. Montreal, Quebec, Canada.

## Local

- 2015 May 15 **Invited Speaker.** The Resident Duty Hours Debate in Surgery: Training vs Work. Surgeon in Chief, St. Michael's Hospital. Toronto, Ontario, Canada. Peri-operative Services Rounds.
- 2014 Oct 24 **Invited Speaker.** Is a tired doctor a safe doctor? (2 hour debate; live on CBC radio). Toronto, Ontario, Canada.
- 2014 Oct 24 **Presenter.** Surgical Residents' Adherence to Post-Call Duty Hours Limits: what are the challenges for education and patient care? International Congress on Residency Education. Presenters: Gotlieb L. Toronto, Ontario, Canada.

## Peer-Reviewed Fundings

- 2015 Jul - 2016 Jul **Co-Investigator.** Royal College of Physicians and Surgeons of Canada 2015 Medical Education Research Grant. Royal College of Physicians and Surgeons of Canada (The). PI: Petrosniak, Andrew. Collaborator(s): Christopher Hicks, Douglas Campbell, Sandro Rizoli. \$50,000.00 CAD. [Grants]

**Dr. Andrew Baker, Chief (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Quan W, Zhang Z, Tian Q, Wen X, Yu P, Wang D, Cui W, Zhou L, Park E, **Baker AJ**, Zhang J, Jiang R. A rat model of chronic subdural hematoma: Insight into mechanisms of revascularization and inflammation. *Brain Res.* 2015 Aug 24. *Brain Res.* 2015 Aug 24. pii: S0006-8993(15)00651-4. doi: 10.1016/j.brainres.2015.08.017. **Coauthor or Collaborator.**

Di Battista A, Buonora J, Rhind S, Hutchison MG, **Baker AJ**, Rizoli S, Diaz-Arrastia R, Mueller G. Blood biomarkers in moderate-to-severe traumatic brain injury: potential utility of a multimarker approach in characterizing outcome. *Front Neurol.* 2015 May 26:e-published. doi.org/10.3389/fneur.2015.00110. **Coauthor or Collaborator.**

**Baker AJ**, Shemie SD. Uniformity in brain death criteria. *Semin Neurol.* 2015 Apr;35(2):162-8. *Semin Neurol.* 2015 Apr;35(2):162-8. **Principal Author.**

Buonora JE, Yarnell AM, Lazarus RC, Mousseau M, Latour LL, Rizoli SB, **Baker AJ**, Rhind SG, Diaz-Arrastia R, Mueller G. Multivariate analysis of traumatic brain injury: development of an assessment score. *Front Neurol.* 2015 Mar;30(6):68. *Front Neurol.* 2015 Mar 30;6:68. **Coauthor or Collaborator.**

Hawryluck L, **Baker AJ**, Faith A, Singh JM. The future of decision-making in critical care after Cuthbertson v. Rasouli. *Can J Anesth/J Can Anesth.* 2014 Aug 28. **Coauthor or Collaborator.**

Shemie SD, **Baker AJ**. Where have we been? Where are we going? Initiatives to improve uniformity of policies, integrity of practice, and improve understanding of brain death within the global medical community and lay public. *J Crit Care.* 2014 Aug 15. **Senior Responsible Author.**

**Baker AJ**, Shemie SD. Biophilosophical basis for identifying the death of a person. *J Crit Care.* 2014 Aug;29(4):687-9. **Principal Author.**

Topolovec-Vranic J, Santos M, **Baker AJ**, Smith OM, Burns KE. Deferred consent in a minimal-risk study involving critically ill subarachnoid hemorrhage patients. *Can Respir J.* 2014 Jun. **Coauthor or Collaborator.**

Dhanani S, Hornby L, Ward R, **Baker AJ**, Dodek P, Chamber-Evans J, Fowler R, Friedrich JO, Gow RM, Kutsogiannis DJ, McIntyre L, Momoli F, Morin K, Ramsay T, Scales D, Writer H, Yildirim S, Young B, Shemie S. Vital Signs After Cardiac Arrest Following Withdrawal of Life-Sustaining Therapy: A Multicenter Prospective Observational Study. *Crit Care Med.* 2014 May 7. **Coauthor or Collaborator.**

Friedrich JO, **Baker AJ**. Optimizing the approach to pain, agitation, and delirium in critical care. *Can J Anaesth.* 2014 May 6. **Senior Responsible Author.**



Bell JD, Thomas TC, Lass EH, Ai J, Wan H, Lifshitz J, **Baker AJ**, Macdonald RL. Platelet-mediated changes to neuronal glutamate receptor expression at sites of micro thrombosis following experimental subarachnoid hemorrhage. J Neurosurg. 2014 April 18. **Coauthor or Collaborator.**

Shemie SD, Hornby L, **Baker AJ**, Teitelbaum J, Torrance S, Young K, Capron AM, Bernat JL, Noel L; and The International Guidelines for Determination of Death phase 1 participants, in collaboration with the World Health Organization. International guideline development for the determination of death. Intensive Care Med. 2014 Mar 25. **Coauthor or Collaborator.**

Park KJ, Park E, Liu E, **Baker AJ**. Bone-marrow derived endothelial progenitor cells protect post-ischemic axons following traumatic brain injury. J Cereb Blood Flow Metab. 2014 Feb;34(2):357-66. **Senior Responsible Author.**

Peterkin A, **Baker AJ**, Bloom R, Marks N. Reflecting on healthcare and self-care in the Intensive Care Unit: our story. Encyclopedia. XVIII (39):74-82. **Coauthor or Collaborator.**

### Peer-Reviewed Fundings

- |                     |                                                                                                                                                                                                                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 Sep - 2016 May | <b>Principal Investigator.</b> Ontario Concussion Care Strategy: Phases I and II. Ontario Neurotrauma Foundation. \$70,000.00 CAD. [Grants]                                                                                                                                                               |
| 2015 Jul - 2017 Jun | <b>Principal Investigator.</b> The role of neuroinflammation following traumatic brain injury to the pathogenesis of neurodegenerative disorders. University of Toronto, Dept of Anesthesia. \$60,000.00 CAD. [Grants]                                                                                    |
| 2015 Jul - 2017 Jun | <b>Principal Investigator.</b> Human umbilical cord perivascular cell (HUCPVC) therapy for traumatic brain injury: targeting the neurovascular unit. PSI Foundation. \$160,500.00 CAD. [Grants]                                                                                                           |
| 2015 Jul - 2017 Jun | <b>Supervisor.</b> A pilot study of sub-anesthetic ketamine infusion for neuroprotection after aneurysmal subarachnoid hemorrhage: Effects on white matter integrity, inflammatory biomarkers, and neurocognitive outcome. Canadian Anesthesiologist Society. PI: Bell, Joshua. \$10,000.00 CAD. [Grants] |
| 2015 Jul - 2017 Jun | <b>Supervisor.</b> A pilot study of sub-anesthetic ketamine infusion for neuroprotection after aneurysmal subarachnoid hemorrhage: Effects on white matter integrity, inflammatory biomarkers, and neurocognitive outcome. PSI Foundation. PI: Bell, Joshua. \$18,000.00 CAD. [Grants]                    |

- 2014 Nov – 2015 Dec **Principal Investigator.** Safety, blood brain barrier permeability and potential efficacy of Etanercept for aneurysmal subarachnoid hemorrhage. Brain Aneurysm Foundation. \$25,000.00 USD. Collaborators: Santos M, Tso M, Bolz S-B, Ai J. [Grants]
- 2012 Jul – 2015 Jun **Principal Investigator.** Development and Innovation of a Clinical Biomarker for Diagnosis of Outcome Following Mild and Moderate Traumatic Brain Injury Using Endothelial Progenitor Cell Specific Markers. Ministry of Economic Development and Innovation. Ontario China Research and Innovation Fund \$250,000.00 CAD. [Grants]
- 2012 Jul – 2015 Jun **Principal Investigator.** Clinical Evaluation of Blood Biomarkers for Discrimination of Posttraumatic Stress Disorder and Traumatic Brain Injury Comorbidity. National Defence Research and Development Canada. \$255,000.00 CAD. [Grants]
- 2013 Oct – 2015 May **Co-investigator.** Do anesthetics exacerbate memory deficits following traumatic brain injury? International Anesthesia Research Society. \$150,000.00 USD. (IARS) Mentored Research Award. PI: Avramescu, S. Collaborators: Orser B, Lecker I, Wang D. [Grants]
- 2013 Jul – 2015 Jun **Principal Investigator.** Endothelial progenitor cells in mild traumatic brain injury: biomarker and mechanisms in recovery. University of Toronto, Dept of Anesthesia. \$80,000.00 CAD. [Grants]
- 2013 Jul – 2015 Jun **Principal Investigator.** Does a key anesthetic contribute to cognitive deficits after traumatic brain injury? University of Toronto, Dept of Anesthesia. \$100,000.00 CAD. Collaborators: Orser B, Park E, Wang D, Lecker I. [Grants]
- 2013 Jul – 2014 Jul **Co-investigator.** Resuscitation in Motion 2014: Building networks of excellence to advance resuscitation science research, development and practice. Canadian Institutes of Health Research (CIHR). \$24,600.00 CAD. PI: Morrison, L. Collaborators: Dainty KN, Rotstein OD. [Grants]
- 2013 Apr – 2014 Mar **Principal Investigator.** Development of Biomarker Profile and Rapid Screening Tool for mTBI due to Subclinical Primary Blast. Development of Biomarker Profile and Rapid Screening Tool for mTBI due to Subclinical Primary Blast. \$ 99,927.00 CAD. Collaborator: Park E. [Grants]
- 2011 Jul – 2016 Jun **Co-investigator.** Resuscitation Outcomes Consortium- Core Training Grant. National Institutes of Health (NIH) (USA). \$335,000.00 CAD. [Grants]
- 2010 Jul – 2016 Jun **Co-investigator.** From bench to bedside to curbside. Heart and Stroke Foundation of Canada (HSFC). \$1,500,000.00 CAD. [Grants]

- 2010 Jul – 2016 Jun      **Co-investigator.** From bench to bedside to curbside. National Institutes of Health (NIH) (USA). \$648,000.00 USD. [Grants]
- 2009 Sep – 2016 Jun      **Co-investigator.** From bench to bedside to curbside. Canadian Institutes of Health Research (CIHR). \$1,057,000.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2014 Apr 8      **Presenter.** International Forum on Quality and Safety in Health Care Quality Improvement Initiative for the Management of Patients Suffering from Aneurysmal Subarachnoid Hemorrhage. Institute for Healthcare Improvement. Paris, France. Presenters: de Oliveira Manoel AL, Turkel-Parrella D, Kouzmina E, Marotta T , Murphy A.

### Provincial

- 2014 Jan 24      **Invited Speaker.** Minimal traumatic brain injury Minimal traumatic brain injury. Alberta Society of Intensive Care Physicians 26th Annual Winter Meeting. Alberta, Canada.

### Local

- 2015 Jun 24      **Facilitator.** Media Coverage on End of Life. OHA. Toronto, Ontario, Canada.
- 2014 Oct 31      **Invited Speaker.** Subarachnoid hemorrhage – Ripe for Clinical Pathways? Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 31      **Invited Speaker.** Donation after circulatory death: A Canadian update. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 29      **Moderator.** CCCF Residents Day Critical Care and the Coming Plague. Canada Critical Care Forum. Toronto, Ontario, Canada.

## Honours and Awards

- 2014 Sep      The North Shore University Hospital Brain Aneurysm Center Chair of Research Award. The Brain Aneurysm Foundation & Scientific Advisory Council. Distinction.

**Dr. Laurent Brochard (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Maitre B, Djibre M, Katsahian S, Habibi A, Stankovic Stojanovic K, Khellaf M, Bourgeon I, Lionnet F, Charles-Nelson A, **Brochard L**, Lemaire F, Galacteros F, Brun-Buisson C, Fartoukh M, Mekontso Dessap A. Inhaled nitric oxide for acute chest syndrome in adult sickle cell patients: a randomized controlled study. *Intensive Care Med.* 2015 Dec 1;41(12):2121-9. **Coauthor or Collaborator.**

Ehrmann S, Roche-Campo F, Bodet-Contentin L, Razazi K, Dugernier J, Trenado-Alvarez J, Donzeau A, Vermeulen F, Thévoz D, Papanikolaou M, Edelson A, León Yoshido H, Piquilloud L, Lakhali K, Lopes C, Vicent C, Desachy A, Apiou-Sbirlea G, Isabey D, **Brochard L**, Reva Research Network, AT@ICU Study Group. Aerosol therapy in intensive and intermediate care units: prospective observation of 2808 critically ill patients. *Intensive Care Med.* 2015 Nov 24. **Senior Responsible Author.**

Cordioli RL, Lyazidi A, Rey N, Granier JM, Savary D, **Brochard L**, Richard JM. Impact of ventilation strategies during chest compression. An experimental study with clinical observations. *J Appl Physiol (1985).* 2015 Nov 19:jap.00632.2015. **Co-Principal Author.**

Carteaux G, Córdoba-Izquierdo A, Lyazidi A, Heunks L, Thille AW, **Brochard L**. Comparison Between Neurally Adjusted Ventilatory Assist and Pressure Support Ventilation Levels in Terms of Respiratory Effort. *Crit Care Med.* 2015 Nov 4. **Senior Responsible Author.**

Goligher EC, Fan E, Herridge MS, Murray A, Vorona S, Brace D, Rittayamai N, Lanys A, Tomlinson G, Singh JM, Bolz SS, Rubenfeld GD, Kavanagh BP, **Brochard L**, Ferguson ND. Evolution of Diaphragm Thickness during Mechanical Ventilation. Impact of Inspiratory Effort. *Am J Respir Crit Care Med.* 2015 Nov 1;192(9):1080-8. **Coauthor or Collaborator.**

Tabuchi A, Nickles HT, Kim M, Semple JW, Koch E, **Brochard L**, Slutsky AS, Pries AR, Kuebler WM. Acute Lung Injury Causes Asynchronous Alveolar Ventilation Which Can Be Corrected by Individual Sighs. *Am J Respir Crit Care Med.* 2015 Oct 29. **Coauthor or Collaborator.**

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### **Editorials**

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### **Research Letters and Letters to Editor**

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### **Reviews**

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**Brochard L**, Lefebvre JC, Cordioli RL, Akoumianaki E, Richard JC. Noninvasive ventilation for patients with hypoxemic acute respiratory failure. *Semin Respir Crit Care Med*. 2014 Aug 1;35(4):492-500. **Principal Author**.

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**Brochard L**. Measurement of esophageal pressure at bedside: pros and cons. *Curr Opin Crit Care*. 2014 Feb 1;20(1):39-46. **Principal Author**.

### Peer-Reviewed Fundings

- |                     |                                                                                                                                                                                                                                                                                                                          |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 Jan - present  | <b>Co-Principal Investigator</b> . Gas eXchange eXtracorporeaL (XXL) Techniques Study. UHN/MSH AFP Innovation Fund. PI: Fan, Eddy. \$130,950.00 CAD. [Grants]                                                                                                                                                            |
| 2015 Apr - 2017 Mar | <b>Principal Investigator</b> . Randomized cross-over physiologic study of High Flow nasal oxygEN cannula versus non-invasive ventilation in cystic fibrosis: The HIFEN study. Canadian Cystic Fibrosis Foundation. Cystic Fibrosis Canada Grant ID: #3050. \$97,925.00 CAD. [Grants]                                    |
| 2014 Jul - 2015 Jul | <b>Collaborator</b> . Liberation from Mechanical Ventilation and Screening: The RELEASE Trial OTS/OLA. Canadian Foundation Innovation (CFI). PI: Burns, Karen. Collaborator(s): Brochard L, Friedrich J, Mehta G, Fan E, et al. \$50,000 CAD. [Grants]                                                                   |
| 2014 Jun - 2016 Jun | <b>Collaborator</b> . The Frequency of Screening and SBT Technique Trial: The FAST Trial. Canadian Institutes of Health Research (CIHR). PI: Burns, Karen. Collaborator(s): Brochard, Laurent, Friedrich J, Mehta G, Fan E, et al. \$156,772.00 CAD. [Grants]                                                            |
| 2014 Mar - 2015 Apr | <b>Collaborator</b> . Screening Elderly Patients for Inclusion in a Weaning Trial: The SENIOR Trial. Tech Value Net. PI: Burns, Karen. Collaborator(s): Brochard, Laurent, Friedrich J, Mehta G, Fan E, et al. \$1,000,000.00 CAD. [Grants]                                                                              |
| 2014 Jan - 2014 Dec | <b>Co-Principal Investigator</b> . The Promizing Study (Proportional assist ventilation for minimizing the duration of mechanical ventilation). CANADA. Canadian Institutes of Health Research (CIHR). Industry Partnership with Covidien. PI: Bosma, Karen. Collaborator(s): Brochard, Laurent. \$900,000 CAD. [Grants] |

- 2013 Oct - 2016 Sep **Co-Investigator.** The Importance of Spontaneous Breathing Efforts in Mechanically Ventilated Patients with Acute Respiratory Distress Syndrome. Physicians Services Incorporated Foundation Operating Grant (PSI). PI: Eddy Fan. Collaborator(s): Brochard, Laurent. \$50,000.00 CAD. [Grants]
- 2012 - 2014 **Principal Investigator.** Clinical Research Hospital Project for a Multicentre Randomized Controlled Trial ARDS (BIRDS). Ministère des Affaires sociales et de la Santé. Clinical Research Hospital Project (PHRC). 250,000.00 EUR. [Clinical Trials]
- 2010 - 2014 **Co-Investigator.** Clinical Research Hospital Project EOLIA (ECMO in ARDS) for a Multicentre Randomized Controlled Trial. Ministère des Affaires sociales et de la Santé. Clinical Research Hospital Project (PHRC). 500,000 EUR. [Clinical Trials]
- 2009 - 2015 **Collaborator.** Hyper2S (fluid loading in sepsis). Ministère des Affaires sociales et de la Santé. Clinical Research Hospital Project (PHRC). Collaborator(s): Brochard, L; Schortgen, F. 150,000 EUR. [Grants]

### Non-Peer-Reviewed Funding

- 2014 Jan - 2018 Dec **Principal Investigator.** Start-Up Operating Funds (Annually). St. Michael's Hospital. \$200,000.00 CAD. [Contracts]
- 2014 - 2016 **Principal Investigator.** Randomized cross-over physiologic study of High Flow nasal oxygen cannula versus non-invasive ventilation in cystic fibrosis: The HIFEN study. Fisher and Paykel. \$20,000.00 CAD. [Industrial Grants]

### Invited Lectures and Presentations

#### International

- 2015 Dec 1 **Invited Speaker.** 21st Postgraduate Refresher Course, Cardiovascular and Respiratory Physiology Applied to Intensive Care Medicine. Brussels, Belgium. Dec 1, PaO<sub>2</sub>/FiO<sub>2</sub> in clinical practice; Lung mechanics: the equation of motion at the bedside; Lung Protective strategies: A practical approach. Dec 2, Pressure vs volume targeted mechanical ventilation.
- 2015 Nov 30 **Invited Speaker.** Conférences de Soins Intensifs et de Médecine d'Urgence. Brussels, Belgium. Patient-ventilator asynchrony: what does it mean? Does it matter?.
- 2015 Nov 28 **Invited Speaker.** JAVA. Paris, France. Du Baby Lung à la pression motrice; ECHO-ICU: Helium au cours de l'IRA hypercapnique.

- 2015 Nov 17 **Invited Speaker.** University of Arizona, Department of Medicine, Pulmonary and Critical Care Grand Rounds. Tucson, Arizona, United States. : Brochard, Laurent. Respiratory Muscle Behavior under Mechanical Ventilation.
- 2015 Oct 3 **Invited Speaker.** LIVES 2015, the 28th ESICM Annual Congress. Berlin, Germany. Oct 3, Speaker: Mechanical Ventilation: From Basics to Advanced Treatment: Assisted mechanical ventilation settings: Basics; ICM Research: Everything you need for a cracking start! Analysis: Study design Oct 4, Speaker: Mechanical Ventilation: From Basics to Advanced Treatment: Weaning from mechanical ventilation; Clinical Case History: Difficult Weaning Oct 5, Chair: Acute Respiratory Failure in the Patient with COPD Oct 5, Speaker: Weaning from Mechanical Ventilation: Classification of patient Oct 6, Speaker: Patient-Ventilator (a) synchrony: Patient-Ventilator mismatch, is it a fatality? Patient Ventilator Asynchronies: What is the impact of them, how do we track them; News in ARDS Management and Therapy: Is the incidence and mortality of ARDS changing Oct 7, Speaker: Non-invasive Ventilation: NIV in COPD.
- 2015 Sep 29 **Invited Speaker.** ERS International Congress 2015. Amsterdam, Netherlands. Sept 26, Speaker: Respiratory Mechanics I: Physiological bases of monitoring airway pressures during mechanical ventilation. Sept 27, Speaker: Weaning from mechanical ventilation: new insights, What's well established and what's new in weaning: an update Sept 29, Speaker: Evolution of medical journals: Publications in Critical Care.
- 2015 Aug 28 **Invited Speaker.** 12th Congress of the World Federation of Societies of Intensive and Critical Care Medicine (WFSICCM) Aug 28- Sept 2. Korea, Republic Of. Aug 29, SY01: Speaker: State of the Art in ARDS and LS01: Covidien Luncheon Symposium: Speaker: Patient Ventilator Interaction: Closing the loop in ventilation Aug 30, Co-Chair and Speaker: Understanding Weaning from MV: New Classification; From 1972 to Date: My Journey on ARDS Understanding Aug 31, SY61: Co-Chair and Speaker: Nasal High-flow Therapy across the Continuum of Care: The Role of Nasal High-flow Therapy for Patients with Hypoxemic Respiratory Failure (Fisher&Paykel) Sept 1, ME14: Speaker: Meet the Expert: Pressure Controlled Versus Volume Controlled Ventilation Sept 2, Speaker: Covidien Customer Symposium: Speaker: Patient Ventilator Interaction: Closing the loop in ventilation.
- 2015 Jun 25 **Invited Speaker.** EcMONet Session: The future of Clinical Research in Extracorporeal Support: Is co-enrollment reasonable in randomized clinical trials? and Designing the next positive randomized trial. 6th International Course on ECMO and Short-term Circulatory/Respiratory Support. Paris, France.

- 2015 Jun 14 **Invited Speaker.** Medicina Intensiva, Actualidad e Innovacion. 50th Congreso Nacioal Semicyuc (June 13-16). San Sebastian, Spain. 1. Monitorizacion hemodinamica: entre la fisiologia y el pragmatismo  
2. Presiones aereas, curvas, asincronias (with L.Blanch)  
3. SDRA: Optimum PEEP: 40 years of research  
4. Weaning: Weaning Prognosis.
- 2015 May 29 **Chair.** 26 SMART Congress. Start Promotions. Milano, Italy. Emergency 1 (with F. Kette).
- 2015 May 28 **Invited Speaker.** 26 SMART Congress. Start Promotions. Milano, Italy. Pressure & volume during spontaneous breathing: do they matter? How to measure them in the non-intubated patient?
- 2015 May 27 **Invited Speaker.** 26 SMART Congress. Start Promotions. Milano, Italy. Synchrony and asynchrony in assisted ventilation.
- 2015 May 20 **Invited Speaker.** Understanding Frailty: Linking Lung Infection with Skeletal Muscle Dysfunction. American Thoracic Society of Meeting. Denver, Colorado, United States. Failure to Wean: The Role of Diaphragmatic Dysfunction.
- 2015 May 6 **Moderator.** Brainstorming: Big Questions for the Experts. Intensive Organization. Madrid, Spain. The future of monitoring.
- 2015 May 5 **Invited Speaker.** Brainstorming: Big Questions for the Experts. Intensive Organization. Madrid, Spain. Caring for the critically ill in the absence of evidence.
- 2015 May 4 **Moderator and Speaker.** Brainstorming: Big Questions for the Experts. Intensive Organization. Madrid, Spain. 1. Moderator: Respiratory Muscle Weakness  
2. Moderator: Controlling respiratory drive through CO2  
3. Speaker: Asynchrony and controlled ventilation protects the lungs and diaphragm.
- 2015 Apr 24 **Moderator and Speaker.** Nijmegen 2015 Meeting Point. Radboud University Medical Center. Nijmegen, Netherlands. 1. Moderator: Respiratory Muscle Weakness  
2. Moderator: Controlling respiratory drive through CO2  
3. Speaker: Asynchrony and controlled ventilation protects the lungs and diaphragm.
- 2015 Apr 23 **Moderator and Speaker.** Nijmegen 2015 Meeting Point. Radboud University Medical Center. Nijmegen, Netherlands. 1. Moderator: Mechanical Ventilation During Sleep and Sedation  
2. Speaker: Overview of intrinsic PEEP  
3. Moderator: Non-invasive ventilation.

- 2015 Mar 23 **Invited Speaker.** DU, Ventilation Artificielle, De la Physiologie a la Pratique. Unviersity of Angers. Angers, France. 1. Asynchronies patient-ventilateur  
2. Modes automatisés: ASV et SmartCare  
3. Questions ouvertes.
- 2015 Mar 19 **Invited Speaker.** 35th International Symposium on Intensive Care and Emergency Medicine. ISICEM. Brussels, Belgium. 1. Automated respiratory support (The next 35 years)  
2. Pressure-controlled versus volume-controlled (Mechanical Ventilation)  
3. Ventilation before and during ECMO (ECMO).
- 2015 Mar 18 **Facilitator.** 35th International Symposium on Intensive Care and Emergency Medicine. ISICEM. Brussels, Belgium. Transpulmonary Pressure (Standard Presentation).
- 2015 Mar 18 **Invited Speaker.** 35th International Symposium on Intensive Care and Emergency Medicine. ISICEM. Brussels, Belgium. 1. A new classification? (Weaning)  
2. Improving the use of pressure support (Mechanical Ventilation: Practical Aspects).
- 2015 Mar 17 **Invited Speaker.** 35th International Symposium on Intensive Care and Emergency Medicine. ISICEM. Brussels, Belgium. Pressure driven ventilator modes (The hematological patient with respiratory failure (TU) [Tutorial] ).
- 2015 Jan 21 **Invited Speaker.** SRLF Congress 2015. SRLF (Jan 21-23). France. 1. C'est demontre, mais l'utilise-t-on assez? Proven, but underused?: Les protocoles de sevrage respiratoire, Mechanical ventilator weaning protocols  
2. Ventilation protectrice: Evaluation des volumes pulmonaires  
3. Automatisation : le futur de la réanimation? Contrôle automatisé de la FiO2 en ventilation mécanique  
4. 2014 : le best-of des éditeurs: American Journal of Respiratory and Critical Care Medicine  
5. Ventilation en situations critiques: Ventilation et massage cardiaque.
- 2015 Jan 21 **Facilitator.** SRLF Congress 2015. SRLF. France. Ventilation mécanique et sevrage.
- 2015 Jan 19 **Invited Speaker.** Ventilation Artificielle, De la Physiologie a la Pratique. CHU d'Angers. France. 1. Replages des modes assistés (VAC, AI)  
2. Volume controle - Pression controlee: exercice sure simulateur  
3. Correction du pre-test- Questions ouvertes.
- 2014 Dec 12 **Invited Speaker.** American Association for Respiratory Care. 41st Donald F Egan Scientific Memorial Lecture What Have We Learned about Non-invasive Ventilation in the Past 20 years? Nevada, Las Vegas, United States.

- 2014 Dec 2 **Invited Speaker.** Department of Medicine, University of Chicago. Huenning Critical Care Visiting Professor, Medicine Grand Rounds ARDS: What we have learned, What we have not. Chicago, Illinois, United States.
- 2014 Nov 24 **Invited Speaker.** 20th Postgraduate Refresher Course: Cardiovascular and Respiratory Physiology Applied to Intensive Care medicine 1. Lung protective strategies: A practical approach 2. Lung practical aspects of Mechanics (with A. Pesenti) 3. Pressure vs volume targeted mechanical ventilation 4. PaO<sub>2</sub>/FiO<sub>2</sub> in clinical practice. Brussels, Belgium.
- 2014 Nov 22 **Invited Speaker.** Journee d'Actualites en Ventilation Artificielle (JAVA) 1. VILI: Quel est l'objectif de la PEP et comment la titre? 2. Demonstrations techniques en petits groupes: Ventilation du SDRA et recrutement pulmonaire. Paris, France.
- 2014 Sept 6 **Invited Speaker.** European Respiratory Society (ERS). Annual Congress 1. PG18 Weaning off mechanical ventilation: between NIV and tracheotomy - How to avoid extubation failure. 2. Noninvasive ventilation in acute respiratory failure. Munich, Berlin, Germany.
- 2014 Aug 2-3 **Invited Speaker.** Albert Einstein Israelita Hospital. 11th International Symposium on Neonatal & Pediatric Mechanical Ventilation of the Albert Einstein Israelita Hospital, 1. To recruit or not recruit the lungs? Tha is the question - No recruitment: Where is the Scientific Evidence 2. Non Invasive Ventilation: The use of Transpulmonary and esophageal pressures in ICU. 3. Non Invasive Ventilation: Update in Non Invasive Ventilation 4. Pulmonary Hypertension: Ventilator-patient interaction. São Paulo, Brazil.
- 2014 May 28-29 **Invited Speaker.** 25 SMART Congress. Simposio Mostra Anesthesia Rianimazione e Terapia Intensiva 1. TV/kg or TV/FRC? 2. Respiratory mechanics in controlled mechanical ventilation. 3. Clinical application of esophageal pressure monitoring in the critically ill patient 4. Ventilation during CPR. Milan, Italy.
- 2014 May 24 **Invited Speaker.** ECMO and Euro-ELSO 2014 International Course Extracorporeal lung support: CPAP, VCV, APRV, NAVA or nothing at all during VV-ECMO? Paris, France
- 2014 May 19 **Invited Speaker.** American Thoracic Society International Conference (ATS) Assembly on Critical Care Membership Meeting - Journal Presentation. San Diego, California, United States.
- 2014 May 5-6 **Invited Speaker.** Universite Angers, Faculte de Medecine. DU de Ventilation Artificielle. 1. Ventilation Artificielle, de la Physiologie a la Pratique: VNI au cours de l'IRA des BPCO 2. VNI post-extubation 3. Humidification des gaz inspires. Paris, France

- 2014 Mar 18 **Facilitator.** Erasme University Hospital, Department of Intensive Care. 34th International Symposium on Intensive Care and Emergency Medicine (ISICEM), March 16-20 Standard Presentation: High frequency ventilation: Is it passe? Brussels, Belgium.
- 2014 Mar 16-20 **Invited Speaker.** Erasme University Hospital, Department of Intensive Care. 34th International Symposium on Intensive Care and Emergency Medicine (ISICEM). 1. Value and limits of mathematical and mechanical modeling 2. How monitoring can improve sleep - Monitoring in mechanical ventilation 3. Bedside measurement - Recruitment: When and How 4. Management of severe ARDS - Tutorial 5. Benefits of proportional modes - partial ventilator support 6. The dark side of Intubation (Novalung) 7. Maybe beneficial? Patient ventilator dyssynchrony. Brussels, Belgium.
- Provincial**
- 2015 Oct 28 **Invited Speaker.** Critical Care NetWork of Chest Conference. Montreal, Quebec, Canada. Speaker: Pressure-Controlled versus Volume Controlled ventilation.
- 2015 Oct 17 **Invited Speaker.** JIVA. Quebec, Canada. Speaker: Ventilation protectrice et individualisation des réglages; Ventilation protectrice et individualisation des réglages; Haut débit nasal ou Bipap?.
- 2015 Jun 11 **Invited Speaker.** Diplome International en Ventilation Artificielle (DIVA), June 11-13. Hopital De Sacre-Coeur de Montreal. Montreal, Quebec, Canada. 1. Les modes proportionnels (NAVA, PAV+) 2. Les interactions patient-ventilateur et les asynchronies 3. Exercices interactifs d'observation des courbes 4. SDRA : Quelle définition ? 5. Ventilation non invasive : Indications et résultats 6. Automatisation de la ventilation 7. Cas cliniques MPOC.
- 2014 Jun 18 **Invited Speaker.** Canadian Critical Care Trials Group (CCCTG). Proportional Assist Ventilation for Minimizing the duration of Mechanical Ventilation: The PROMIZING Study. Speaker: Bosma K. Montreal, Quebec, Canada.
- 2014 Jun 12-14 **Invited Speaker.** Hopital De Sacre-Coeur de Montreal Diplome International en Ventilation Artificielle (DIVA). Exercices interactifs d'observation des courbes 2. Les interactions patient-ventilateur et les asynchronies 3. Physiologie respiratoire appliquee a la ventilation mecanique 4. SDRA: Quelle definition 5. Cas Cliniques MPOC 6. Humidification-Aspirations 7. Ventilation non invasive: Indications et resultats. Montreal, Quebec, Canada.
- 2014 Apr 4 **Invited Speaker.** Hopital Du Sacre-Coeur De Montreal. Journee Internationale en ventilation artificielle (JIVA) 1. Arret cardiaque et ventilation 2. Le decubitus ventral: Y a t-il du nouveau? Montreal, Quebec, Canada.

## Local

- 2015 Dec 15 **Invited Speaker.** Ventilations Rounds. U of T IDCCM Tuesday Teaching Sessions. Toronto, Ontario, Canada.
- 2015 Oct 25 **Invited Speaker.** Critical Care Canada Forum (CCCF). Toronto, Ontario, Canada. Oct 25, Fellows Day: Speaker: ARDS - Use of Esophageal Pressures; Master Class: The Role of Esophageal Pressure Monitoring in ARDS  
Oct 27, Speaker: Ventilation-Muscles & Synchrony: Integration- Individualising Ventilation  
Oct 28, Speaker: ARDS - Molecules to Mechanics - ARDS - The 'key' Mechanics; Plenary Act: RCT - The HYPER2S trial (for A. Mercat).
- 2015 Oct 25 **Invited Speaker.** CCCTG Scientific Session. Toronto, Ontario, Canada. Presenter(s): Brochard, Laurent; Bosma, Karen. Promizing Study (PAV minimizing the duration of mechanical ventilation).
- 2015 Sep 30 **Invited Speaker.** Department of Medicine, University Health Network/Mt. Sinai Hospital, Medical Grand Rounds. Toronto, Ontario, Canada. Speaker: Goldstein Lecture: How We Learned Physiology by Using Mechanical Ventilation.
- 2015 Sep 24 **Invited Speaker.** Early Weaning Symposium. Toronto, Ontario, Canada. 1. The Scope of the Problem – Current Epidemiology, Practice and Health Policy Implications of Weaning (Moderator)  
2. Speaker: Introduction to the Day: “Liberation versus Weaning - Why It Matters”  
3. Components of a Successful Weaning Program - Optimizing Your Patient: Speaker: Bedside Assessment: is it the Heart or the Lungs?.
- 2015 Jul 14 **Invited Speaker.** Patient Ventilator Interactions: Synchrony Matters. U of T IDCCM Tuesday Teaching Sessions. Toronto, Ontario, Canada.
- 2015 Jul 14 **Invited Speaker.** High Flow Nasal Cannula Oxygen for Hypoxemic Respiratory Failure. SMH Critical Care Department Rounds. Toronto, Ontario, Canada.
- 2015 Jun 4 **Invited Speaker.** Ventilator Management Workshop for the Intensivist: Weaning - Mechanical Ventilation. Canadian Critical Care Review Conference (CCCR). Toronto, Ontario, Canada.
- 2015 Jun 3 **Invited Speaker.** Diaphragm dysfunction in the mechanically ventilated patient. U of T Respiriology Research Day. Toronto, Ontario, Canada.
- 2015 Jun 3 **Invited Speaker.** Ventilator Management Workshop for the Intensivist: Patient Ventilator Asynchrony. Canadian Critical Care Review. Toronto, Ontario, Canada.



- 2015 May 21 **Panelist.** U of T ICU/Surgery Symposium. U of T Annual Assembly for General Surgery. Toronto, Ontario, Canada.
- 2015 Feb 24 **Invited Speaker.** U of T IDCCM Critical Care Physiology Rounds. U of T IDCCM. Toronto, Ontario, Canada. What makes for high quality physiology paper.
- 2014 Oct 15 **Invited Speaker.** St. Michael's Hospital, Department of Medicine, Medical Grand Rounds. The Acute Respiratory Distress Syndrome: What We Have Learned, What We Have Not. Toronto, Ontario, Canada.
- 2014 Jun 5 **Invited Speaker.** Canadian Critical Care Review Conference (CCCR) Weaning - Mechanical Ventilation. Toronto, Ontario, Canada.
- 2014 Apr 4 **Invited Speaker.** U of T Respiriology Grand Rounds. New definition for ARDS: limit and interest. Toronto, Ontario, Canada.
- 2014 Feb 27 **Invited Speaker.** U of T Critical Care Physiology Rounds. Sleep in the Critically Ill - Sleep During Critical Illness. Toronto, Ontario, Canada.

### Honours and Awards

- 2015 ERS Assembly Lifetime Achievement Award (by the Assembly 2 Respiratory Intensive Care ERS officers), European Respiratory Society (ERS), Netherlands. (Distinction)
- 2014 ERS Fellowship Honorary Member. European Society of Intensive Care Medicine.
- 2014 41st Donald F Egan Scientific Memorial Lecturer. American Association for Respiratory Care.
- 2014 Heunning Critical Care Visiting Professor. University of Chicago, Medicine Grand Rounds.

**Dr. Karen Burns (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Rose L, Fitzgerald E, Cook D, Kim S, Steinberg M, Devlin JW, Ashley BJ, Dodek P, Smith O, Porretta K, Lee Y, **Burns K**, Harvey J, Skrobik Y, Fergusson D, Meade M, Kraguljac A, Burry L, Mehta S: SLEAP investigators and the Canadian Critical Care Trials Group. Clinician perspectives on protocols designed to minimize sedation. *J Crit Care*. 2015 Apr 30;30(2):348-52. **Coauthor or Collaborator**.

Cape DL, FoxRobichaud A, Turgeon A, Seely A, Hall RI, **Burns K**, Singal R, Dodek P, Bagshaw S, Sibbald R, Downar J. The Impact of the Rasouli Decision: A Survey of Canadian Intensivists. *Journal of Medical Ethics*. 2015 Apr 16. **Coauthor or Collaborator**.

Mehta S, Cook D, Devlin JW, Skrobik Y, Meade M, Fergusson D, Herridge M, Steinberg M, Granton J, Ferguson N, Tanios M, Dodek P, Fowler R, **Burns K**, Jacka M, Olafson K, Mallick R, Reynolds S, Keenan S, Burry L; for the SLEAP Investigators and the Canadian Critical Care Trials Group. Prevalence, Risk Factors, and Outcomes of Delirium in Mechanically Ventilated Adults. *Crit Care Med*. 2015 Mar;43(3):557-66. doi: 10.1097/CCM. **Coauthor or Collaborator**.

**Burns K**, Kho ME. How to assess a survey report: a guide for readers and peer reviewers. *CMAJ*. 2015 Feb 17. **Principal Author**.

Heyland DK, Dodek P, Mehta S, Cook D, Garland A, Stelfox HT, Bagshaw SM, Kusogiannis D, **Burns K**, Muscedere J, Turgeon A, Fowler R, Jiang X, Day AG. Admission of the Very Elderly to the Intensive Care Unit: Family Members' Perspectives on Clinical Decision-Making from a multicenter cohort study. *Palliative Care Med*. 2015 Feb 2. 2015 Feb 2. pii: 0269216314566060. [Epub ahead of print]. **Coauthor or Collaborator**.

Downar J, You JJ, Bagshaw SM, Golan E, Lamontagne F, **Burns K**, Sridhar SK, Seely A, Meade MO, Fox-Robichaud A, Cook D, Turgeon AF, Dodek P, Xiong W, Fowler R, Canadian Critical Care Trials Group. Nonbeneficial treatment Canada: definitions, causes, and potential solutions from the perspective of healthcare practitioners\*. *Crit Care Med*. 2015 Feb 1;43(2):270-81. *Crit Care Med*. 2015 Feb;43(2):270-81. doi: 10.1097/CCM. PMID:25377017. **Coauthor or Collaborator**.

**Burns K**, Rizvi L, Smith OM, Lee Y, Lee J, Wang M, Brown M, Parker M, Premji A, Leung D, Hammond Mobilio M, Gotlib-Conn L, Nisenbaum R, Santos M, Li Y, Mehta S. Is there a role for physician involvement in introducing research to surrogate decision makers in the intensive care unit? (The Approach trial: a pilot mixed methods study). *Intensive Care Med*. 2015 Jan 1;41(1):58-67. **Principal Author**.

Heyland D, Garland A, Bagshaw S, Cook DJ, Stelfox T, Dodek P, Fowler R, Turgeon A, **Burns K**, Muscedere J, Kutsogiannis J, S. Mehta, Jiang X J, Day AG. The Very Elderly Admitted to Intensive Care Unit: A quality finish? *Critical Care Medicine*. 2015. In Press. **Coauthor or Collaborator**.

Wald R, Adhikari N, **Burns K**, Bagshaw S, Garg A, Harel Z, Kitchlu A, Silver S, Scales D, Friedrich J, Mazer D. Changing Incidence and Outcomes Following Dialysis-Requiring Acute Kidney Injury Among Critically Ill Adults: A Population-Based Cohort Study. *American Journal of Kidney Disease*. 2014 Dec. **Coauthor or Collaborator**.

Blackwood B, Alderdice F, **Burns K**, Cardwell C, Lavery G, O'Halloran P. Use of weaning protocols for reducing duration of mechanical ventilation in critically ill adult patients: Un updated Cochrane systematic review and meta-analysis. *Cochrane Database of Syst Reviews*. 2014 Nov. **Coauthor or Collaborator**.

**Burns K**, Caon E, Dodek P. A Survey of the Grants and Manuscripts Committee of the Canadian Critical Care Trials Group. *Can Resp Journal*. 2014 Sep 21:5(5);283-6. **Principal Author**.

Kudlow P, **Burns K**, Adhikari N, Bell B, Klein DJ, Xie B, Friedrich JO, Wald R for the Acute Kidney Injury Group. Inter-Hospital Transfers and Outcomes of Critically Ill Patients with Severe Acute Kidney Injury: A Multicentre Cohort Study. *Critical Care*. 2014 Sept 14:18(5);513. **Coauthor or Collaborator**.

Topolovec-Vranic J, Santos M, Baker AJ, Smith O, **Burns K**. Delayed consent in a minimal risk study of critically ill subarachnoid haemorrhage patients. *Can Resp Journal*. 2014 Sep:21(5);293-6. **Senior Responsible Author**.

Wald R, Shariff SZ, Adhikari NK, Bagshaw SM, **Burns K**, Friedrich JO, Garg AX, Harel Z, Kitchlu A, Ray JG. The Association between renal replacement therapy modality and long-term outcomes among critically ill adults with acute kidney injury: a retrospective cohort study. *Crit Care Med*. 2014 Apr:41(4);868-77. **Coauthor or Collaborator**.

**Burns K**, Premji A, Meade MO, Adhikari NKJ. Weaning Critically Ill Adults with Noninvasive Positive Pressure Ventilation: An Updated Systematic Review and Meta-Analysis. *Review. CMAJ*. 2014 Feb 18:186(3);112-122. **Principal Author**.

Santiago C, Lazar L, Depeng J, **Burns K**. Attitudes and Perceptions of Multidisciplinary Team Members Toward Family Presence at Bedside Rounds in the Intensive Care Unit *Intensive Crit Care Nurs*. 2014 Feb:30(1)13-21. **Senior Responsible Author**.

Chant C, Wang A, **Burns K**, Dos Santos CC, Hwang SW, Friedrich JO, Smith OM. Critical illness in homeless persons is poorly studied: a systematic review of the literature. *Intensive Care Med*. 2014 Jan:40(1);123-5. **Coauthor or Collaborator**.

**Burns K**, Rizvi L, Smith OM, Mehta S. The Approach Trial: A Mixed Methods Pilot RCT Comparing Alternative Strategies for Approaching Substitute Decision Makers for Proxy Consent for Research Participation. *J Clin Trials*. 2014:4(3). **Principal Author**.

Delaney J, Pinto R, Long J, Lamontagne F, Adhikari NK, Kumar A, Marshall J, Cook DJ, Jovet P, Fergusson ND, Griesdale D, Burry L, **Burns K**, Hutchison J, Fowler R. The Influence of Corticosteroid Treatment on the Outcome of Influenza A (H1N1 pdm09)-related Critical Illness. *American Journal of Respiratory and Critical Care Medicine*. 2014. **Coauthor or Collaborator**.

**Burns K**, Lellouche F, Nisenbaum R, Lessard M, Friedrich J, Blackwood B. SmartCare™ versus non-automated mechanical ventilation strategies on discontinuation time for adults in the postoperative period. The Cochrane Database of Syst Rev. 2014: 2. **Principal Author.**

**Burns K**, Lellouche F, Nisenbaum R, Lessard M, Friedrich J. SmartCare™ versus non-automated weaning strategies for weaning time in invasively ventilated critically ill adults. The Cochrane Database of Syst Rev. 2014. **Principal Author.**

**Burns K**, Lellouche F, Nisenbaum R, Lessard MR, Friedrich JO. Automated weaning and SBT systems versus non-automated weaning strategies for weaning time in invasively ventilated critically ill adults. Cochrane Database of Systematic Reviews. 2014: 9. **Principal Author**

## **Abstracts**

Greco P, Every H, Porretta K, **Burns K**. Does Pressure Matter? A Comparison of CPAP vs. No Ventilation Support in the Measurement of the Rapid Shallow Breathing Index. Canadian Respiratory Care Society Meeting. 2014:50(2);57. **Coauthor or Collaborator.**

**Burns K**, Premji A, Rizvi L, Leung D, Hammond Mobilio M, Gotlib-Conn L, Smith O. A Randomized Trial of Different Strategies for Introducing Research to Substitute Decision Makers: The Approach Trial (Qualitative Study) AJRCCM. 2014; A1145. **Principal Author.**

**Burns K**, Rizvi L, Smith O, Lee Y, Lee J, Brown M, Parker M, Santos M, Li Y, Nisenbaum R, Mehta S. A Randomized Trial of Different Strategies for Introducing Research to Substitute Decision Makers: The Approach Trial (Quantitative Study). AJRCCM. 2014. **Principal Author**

**Burns K**, Lellouche F, Nisenbaum R, Lessard M, Friedrich JO. SmartCare versus Non-automated weaning Strategies for Weaning Time in Invasively Ventilated Critically Ill Adults. AJRCCM. 2014; A4468. **Principal Author.**

Badin M, Brown H, **Burns K**, Friedrich JO, Mazer DS, Mazer CD. Use of Alternative Consent Models in Randomized Trials of Acute Care Research: A Systematic Review. vAJRCCM. 2014. **Coauthor or Collaborator**

Digby GC, Parker CM, Keenan SP, Muscedere J, Sinuff T, **Burns K**, Mehta S, Ronco JJ, Kutsogiannis DJ, Rose L, Ayas NT, Berthiaume LR, D'Arsigny CL, Stollery DE. Non-Invasive Ventilation Practice Patterns in Canadian Tertiary Care Centres: A Descriptive Analysis. Canadian Respiratory Journal. 2014. **Coauthor or Collaborator.**

## **Book Chapters**

**Burns K**, Adhikari NKJ. Chapter 29: Non-invasive Ventilation and Weaning Outcome. International Respiratory Care Clinics and Applied Technology. 2015. In Press. **Principal Author.**

## Peer-Reviewed Fundings

- 2015 Jan - 2019 Jan **Co-Investigator.** Standard vs Accelerated Initiation of Renal Replacement Therapy in Acute Kidney Injury. Canadian Institutes of Health Research (CIHR). PI: Wald, R. \$220,996.00 CAD. [Grants]
- 2014 Jul – 2017 Jul **Co-Investigator.** The SuDDICU study- A randomised controlled trial of the clinical effectiveness and cost-effectiveness with a contemporaneous study of the ecological impact of Selective Decontamination of the Digestive tract in critically ill patients treated in Intensive Care Units. CIHR. \$7,771,590.00 CAD. Collaborators: Cuthbertson B, Amaral A, Bagshaw S, Daneman N, et al. [Grants]
- 2014 Jul – 2015 Jul **Principal Investigator.** Liberation from Mechanical Ventilation and Screening: The RELEASE Trial OTS/OLA. \$50,000.00 CAD. Collaborators: Friedrich J, Brochard L, Mehta G, Fan E, et al. [Grants]
- 2014 Jul – 2015 Jul **Co-Investigator.** Variation in Research Ethics and Contract Approval Processes in an International Observational Study of Mechanical Ventilation Discontinuation Practices. CCCTG. \$2,500.00 CAD. Collaborators: Rizvi L, Griffin K, Zytaruk N, Cook D. [Grants]
- 2014 Jun – 2016 Jun **Principal Investigator.** The Frequency of Screening and SBT Technique Trial: The FAST Trial. Canadian Institutes of Health Research (CIHR). \$156,772.00 CAD. Collaborators: Friedrich J, Brochard L, Mehta G, Fan E, et al. [Grants]
- 2014 Mar – 2015 Apr **Principal Investigator.** Screening Elderly Patients for Inclusion in a Weaning Trial: The SENIOR Trial. Tech Value Net. \$100,000.00 CAD. Collaborators: Friedrich J, Brochard L, Mehta G, Fan E, et al. [Grants]
- 2013 Jul – 2014 Jul **Co-Investigator.** Selection for and Timing to Start Renal Replacement in Critically Ill Older Patients with Acute Kidney Injury (OPTIMAL-AKI). Tech Value Net. \$384,087.00. CAD. [Grants]
- 2013 Mar – 2015 Mar **Principal Applicant.** A Nested Study Within An International Observational Study. Tech Value Net. \$70,950.00 CAD. [Grants]
- 2012 Jul – 2014 Jun **Co-Investigator.** One Day Point Prevalence of Acute Rehabilitation: Rates of, Barriers to and Facilitating Factors for Mobilization in Canadian Intensive Care Units. Physician Services Incorporated. Collaborators: Kin-Yue Koo K, Meade M, Cook D, Herridge H, et al. \$58,000.00 CAD. [Grants]

2012 Jul – 2014 Jun	<b>Co-Investigator.</b> One Day Point Prevalence of Acute Rehabilitation: Rates of, Barriers to and Facilitating Factors for Mobilization in Canadian Intensive Care Units. Academic Medical Organization of Southwestern Ontario. Collaborators: Kin-Yue Koo K, Meade M, Cook D, Herridge H, et al. \$102,183.90 CAD. [Grants]
2011 Jul – 2014 Jul	<b>Principal Applicant.</b> Practice Pattern Variation in Liberating Critically Ill Adults from Invasive Mechanical Ventilation: An International Study. GE Healthcare. \$15,000.00 CAD. [Grants]
2011 Jul – 2014 Jul	<b>Principal Applicant.</b> Practice Pattern Variation in Liberating Critically Ill Adults from Invasive Mechanical Ventilation: An International Study. Fisher & Paykel Inc. \$25,000.00 CAD. [Grants]
2011 Jul – 2014 Jul	<b>Principal Applicant.</b> Practice Pattern Variation in Liberating Critically Ill Adults from Invasive Mechanical Ventilation: An International Study. Covidien Inc. \$50,000.00 CAD. [Grants]
2011 Jul – 2014 Jul	<b>Principal Applicant.</b> Practice Pattern Variation in Liberating Critically Ill Adults from Invasive Mechanical Ventilation: An International Study. CIHR. \$85,000.00 CAD. [Grants]
2011 Jul – 2014 Jun	<b>Principal Applicant.</b> The Impact of Practice Pattern Variation in Discontinuing Mechanical Ventilation in Critically Ill Adults. Ministry of Research and Innovation. \$124,842.00 CAD. Collaborators: Cook D, Meade M, Dodek P, Slutsky A et al. [Grants]

## Invited Lectures and Presentations

### International

2014 May 21 **Presenter.** American Thoracic Society. SmartCare vs. Non-automated Weaning Strategies for Weaning Critically Ill Adults. San Diego, California, United States.

### Provincial

2015 Jan 28 **Presenter.** The RELEASE and SENIOR Trials. Canadian Critical Care Trials Group. Lake Louise, Alberta, Canada.

2015 Jan 26 **Presenter.** International Observational Study of Mechanical Ventilation Discontinuation Practices. Canadian Critical Care Trials Group. Lake Louise, Alberta, Canada.

2014 Jun 18 **Presenter.** Canadian Critical Care Trials Group. Update: The RELEASE/SENIOR Trials. Montreal, Quebec, Canada.

2014 Jan 29 **Presenter.** Canadian Critical Care Trials Group. An International Observational Study of Mechanical Ventilation Discontinuation Practices. Lake Louise, Alberta, Canada.

## **National**

2015 Mar 6            **Invited Speaker.** Frequency of Screening in Critically Ill Patients in the ICU: the RELEASE and SENIOR Trials. Ottawa General Hospital. Ottawa, Ontario, Canada.

## **Local**

2014 Oct 31           **Invited Speaker.** Critical Care Canada Forum Research Consent –A Different Paradigm. Toronto, Ontario, Canada.

2014 Oct 28           **Presenter.** Canadian Critical Care Trials Group Update. The RELEASE/SENIOR Trials; International Observational Study of MV Discontinuation Practices. Toronto, Ontario, Canada.

2014 Sept 23          **Presenter.** Tech Value Net Meeting. Practices in End-of-Life Care and In Discontinuing Mechanical Ventilation in Elderly Critically Ill Adults. A Nested Study Within an International Observational Study; Screening Elderly Patients for Inclusion in a Weaning Trial. Toronto, Ontario, Canada.

## **Honours and Awards**

2012 July – 2015 Jun      Merit Review Committee. Program of Research in Weaning Critically Ill Patients from Mechanical Ventilation. University of Toronto.

2014                      Research Engagement Award. Patient and Family Centered Care Committee, St Michael's Hospital.

**Dr. Gerard Curley (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Devaney J, Horie S, Masterson C, Elliman S, Barry F, O'Brien T, **Curley GF**, O'Toole D, Laffey JG. Human mesenchymal stromal cells decrease the severity of acute lung injury induced by E. coli in the rat. *Thorax*. 2015 Jul. July 2015;70(7):625-35. **Coauthor or Collaborator.**

Hayes M, **Curley GF**, Contreras M, Higgins BD, Laffey JG. Mesenchymal stromal cells are more effective than the MSC secretome in diminishing injury and enhancing recovery following ventilator-induced lung injury. *Intensive Care Medicine Experimental*. 2015 May 15. In Press. **Co-Principal Author.**

Hayes M, Masterson C, Devaney J, Barry F, Elliman S, O'Brien T, O'Toole D, **Curley GF**, Laffey JG. Therapeutic efficacy of human mesenchymal stromal cells in the repair of established ventilator-induced lung injury in the rat. *Anesthesiology*. 2015 Feb;122(2):363-73. 2015 Feb;122(2):363-73. **Coauthor or Collaborator.**

**Book Chapters**

**Curley GF**. What is the role of empiric antibiotic therapy in sepsis. In: *Evidence Based Practice of Critical Care*. 2nd. Elsevier Companies Inc (Publication Autumn 2014); 2015. In Press. **Principal Author.**

**Curley GF**, Laffey JG, Kavanagh KP. Carbon Dioxide. In: *Murray & Nadel's Textbook of Respiratory Medicine*. 6th Edition. Elsevier Companies Inc (Publication Autumn 2014); 2015. **Principal Author.**

**Commentaries**

**Curley GF**, Laffey JG, Zhang H, Slutsky AS. Noninvasive respiratory support for acute respiratory failure—high flow nasal cannula oxygen or non-invasive ventilation? *J Thorac Dis*. 2015 Jul 1;7(7):1092-1097. **Principal Author.**

Curley GF, McAuley DF. Stem cells for respiratory failure. *Curr Opin Crit Care*. 2015 Feb;21(1):42-9. 2015 Feb;21(1):42-9. **Principal Author.**

**Curley GF**, Laffey JG. Future therapies for ARDS. *Intensive Care Med*. 2015 Feb;41(2):322-6. 2015 Feb;41(2):322-6. **Principal Author.**

Masterson C, Jerkic M, **Curley GF**, Laffey JG. Mesenchymal stromal cell therapies: potential and pitfalls for ARDS. *Minerva Anesthesiol*. 2015 Feb;81(2):179-94. 2015 Feb;81(2):179-94. **Coauthor or Collaborator.**



## Peer-Reviewed Fundings

- 2015 Jul - 2016 Jul **Principal Investigator.** Surviving Sepsis: Saving Lives with Stem Cells. St Michael's Foundation. St Michael's Foundation Angel's Den Competition. Collaborator(s): Katalin Szaszi. \$30,000.00 CAD. [Grants]
- 2015 Jul - 2016 Jun **Principal Investigator.** PHAGOCyTeS study: PHagocytosis Stimulation and Assessment to Generate an Optimal Cell Therapy for Human Sepsis. St Michael's Foundation. St Michael's Hospital Translational Innovation Fund. Collaborator(s): Katalin Szaszi, Sergio Grinstein, John Marshall, John Laffey, Ori Rotstein. \$50,000.00 CAD. [Grants]
- 2015 - 2020 **Principal Investigator.** Activation of Mesenchymal Stem Cells with Danger Signals: Enhancing Bacterial Clearance and Tissue Repair during sepsis-induced ARDS. Ontario Early Researcher Award. \$150,000.00 CAD. [Grants]
- 2015 - 2016 **Co-Investigator.** IMPACT (IMproved Pulmonary repair with Advanced Cell Therapy) for Acute Respiratory Distress Syndrome. Mitacs-Accelerate. Graduate Research Internship Program. \$80,000.00 CAD. [Grants]
- 2014 - 2019 **Principal Investigator.** Pre-activated Mesenchymal Stem Cell Therapy for Bacterial Pneumonia. Canadian Anesthesiologists' Society. Canadian Anesthesia Research Foundation Operating Grant. \$30,000.00 CAD. [Grants]
- 2014 - 2019 **Co-Investigator.** Cell Based Therapy for Acute Respiratory Distress Syndrome: Using mechanistic insights to optimize therapeutic potential. Canadian Institute of Health. Research Operating Grant. \$895,600.00 CAD. [Grants]
- 2013 - 2016 **Principal Investigator.** Fate and function of MSCs in ARDS and sepsis. University of Toronto Clinician Scientist Transition Award. \$150,000.00 CAD. [Grants]
- 2013 - 2015 **Principal Investigator.** Optimizing MSC-macrophages interactions in ARDS and sepsis. International Anesthesia Research Society Mentored Research Award. \$150,000.00 USD. [Grants]
- 2013 - 2015 **Co-Investigator.** Targeting the MSC-Macrophage interaction to maximize the therapeutic utility of MSCs in sepsis induced ARDS. University of Toronto Translational Research Competition. \$100,000.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

2015 May 19 **Presenter.** Human Mesenchymal Stem/Stromal Cells Enhance Receptor Mediated Phagocytosis of Escherichia Coli in Human Monocyte Derived Macrophages (Poster). American Thoracic Society. Denver, Colorado, United States.

### Local

2015 Jan **Invited Speaker.** Mesenchymal stromal cell - macrophages interactions in ARDS. Keenan Research Centre for Biomedical Science of St. Michael's Hospital Research Meeting, St. Michael's Hospital. Toronto, Ontario, Canada.

**Dr. Claudia Dos Santos (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Siddiqi FS, Majumder S, Thai K, Abdalla M, Hu P, Advani SL et al.. The Histone Methyltransferase Enzyme Enhancer of Zeste Homolog 2 Protects against Podocyte Oxidative Stress and Renal Injury in Diabetes. J. Am. Soc. Nephrol. 2015 Nov. **Coauthor or Collaborator.**

**Dos Santos CC.** Shedding metabo'light' on the search for sepsis biomarkers. Crit Care. 2015;19 :277. doi: 10.1186/s13054-015-0969-7. PubMed PMID:26148483 PubMed Central PMC4493818. Walsh, CJ, Batt, J, Herridge, MS, Dos Santos, CC. Muscle wasting and early mobilization in acute respiratory distress syndrome. Clin. Chest Med. 2015 Jul. 35 (4):811-26. **Principal Author.**

Lunardi LW, Wagner R, **Dos Santos CC**, Severo AT, Ferreira JA. Complete blood count alterations in disseminated histoplasmosis. Rev Bras Hematol Hemoter. 2015 Jul;37(4):263-5. **Coauthor or Collaborator.**

Shan Y, Akram A, Amatullah H, Zhou DY, Gali PL, Maron-Gutierrez T et al.. ATF3 protects pulmonary resident cells from acute and ventilator-induced lung injury by preventing Nrf2 degradation. Antioxid. Redox Signal. 2015 Mar;22 (8):651-68. **Senior Responsible Author.**

Walsh CJ, Batt J, Herridge MS, **Dos Santos CC.** Muscle wasting and early mobilization in acute respiratory distress syndrome. Clin Chest Med, 2014 Dec; 35(4):811-26. **Senior Responsible Author.**

Wilcox ME, Charbonney E, d'Empaire PP, Duggal A, Pinto R, Javid A, **dos Santos CC**, Rubinfeld GD, Sutherland S, Liles WC, Glogauer M Oral neutrophils are an independent marker of the systemic inflammatory response after cardiac bypass. J Inflamm (Lond). 2014 Oct: 18:11(1);32. **Coauthor or Collaborator.**

Amodeo C, Guimarães GG, Picotti JC, **Dos Santos CC**, Bezzerra Fonseca KD, Matins RF et al.. Morning blood pressure surge is associated with death in hypertensive patients. Blood Press Monit. 2014 Aug;19 (4):199-202. **Coauthor or Collaborator.**

Aguirre A, López-Alonso I, González-López A, Amado-Rodríguez L, Batalla-Solís E, Astudillo, A et al.. Defective autophagy impairs ATF3 activity and worsens lung injury during endotoxemia. J. Mol. Med. 2014 Jun;92 (6):665-76. **Coauthor or Collaborator.**

Binnie A, Tsang JYL, **dos Santos C.** Biomarkers in acute respiratory distress syndrome Current opinion in critical care. 2014 Feb. 20(1);47-55. **Senior Responsible Author.**

Chant C, Wang A, Burns K, **dos Santos C**, Hwang S, Friedrich J, Smith O. Critical Illness in Homeless Persons: A Systematic Review of the Literature. Intensive Care Med. 2014 Jan: 40(1);123-125. **Coauthor or Collaborator.**

## Editorials

**dos Santos CC**, Marshall JC. Bridging lipid metabolism and innate host defense. *Sci Transl Med.* 2014 Oct 15;6(258):258fs41. **Principal Author.**

Liles WC, Matthay MA, **dos Santos CC**, Weiss DJ, Stewart DJ. Mesenchymal Stromal (Stem) Cell Therapy: An Emerging Immunomodulatory Strategy for the Adjunctive Treatment of Sepsis. *Am J Respir Crit Care Med.* 2014 Feb. **Coauthor or Collaborator.**

## Peer-Reviewed Fundings

- 2014 Nov – 2015 Oct **Co-Investigator.** Identification and Application of Theranostic MicroRNA(s) in Mesenchymal Stem Cell Therapy for Severe Sepsis Ontario Stem Cell Initiative (OSCI). \$70,000.00 CAD. [Grants]
- 2014 Jul – 2019 Jun **Co-Investigator.** Z-BRAIN: A Zebrafish Drug Screening Platform Targeting Brain Disorders. Brain-Canada Grant. \$1,310,000.00 CAD. [Grants]
- 2014 Jul – 2019 Jun **Principal Investigator.** Molecular Mechanism(s) of Protection from Acute Lung Injury. Canadian Institutes of Health Research (CIHR). \$900,000.00 CAD. [Grants]
- 2014 Jul – 2019 Jun **Co-Investigator.** Mechanisms of Impaired Skeletal Muscle Growth in Intensive Care Unit Acquired Weakness (ICUAW). Canadian Institutes of Health Research (CIHR). \$715,000.00 CAD. [Grants]
- 2013 Mar – 2018 Jun **Principal Investigator.** Mechanisms of protection and informed target discovery for gene and stem cell therapy in sepsis. Canadian Institutes of Health Research (CIHR). \$750,000.00 CAD. [Grants]
- 2013 Mar – 2014 Feb **Principal Investigator.** Mechanisms of protection and informed target discovery for gene and stem cell therapy in sepsis. Canadian Institutes of Health Research (CIHR). \$100,000.00 CAD. [Grants]
- 2012 Mar – 2017 Apr **Principal Investigator.** New Investigator Award: Informed discovery of novel targets for therapy. Canadian Institutes of Health Research (CIHR). \$562,000.00 CAD. [Grants]
- 2010 Oct – 2014 Feb **Principal Investigator.** Molecular Mechanisms of Lung Protection from Ventilator Induced Lung Injury (VILI). Canadian Institute of Health Sciences (CIHR). \$385,000.00 CAD. [Grants]

## **Invited Lectures and Presentations**

### **International**

2014 Sept 29            **Invited Speaker.** ESICM. Mesenchymal Stem Cells in Acute Lung Injury  
Barcelona, Spain.

### **Local**

2014 Nov 1            **Speaker.** Canada Critical Care Forum. Therapy - The Future is Gene and  
Cell Therapy. Toronto, Ontario, Canada.

## **Honours and Awards**

2014            University of Toronto Fellowship - Laboratory Medicine and Pathobiology SGS.

2014            LMP Scholarship of Excellence - SGS. University of Toronto.

2014            IMS Summer Scholarship. University of Toronto.

2014            Department of Physiology Excellence Award. University of Toronto.

2013 – 2014    Margaret J. Santalo Fellowship - The role of DJ-1 in Sepsis.

2012 – 2017    New Investigator Award. Canadian Institutes of Health Research.

**Dr. Jan Friedrich (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Verma S, Goodman SG, Mehta SR, Latter DA, Ruel M, Gupta M, Yanagawa B, Al-Omran M, Gupta N, Teoh H, **Friedrich JO**. Should dual antiplatelet therapy be used in patients following coronary artery bypass surgery? A meta-analysis of randomized controlled trials. *BMC Surg*. 2015 Oct 14;15(1):112. **Senior Responsible Author**.

Wald R, Adhikari NK, Smith OM, Weir MA, Pope K, Cohen A, Thorpe K, McIntyre L, Lamontagne F, Soth M, Herridge M, Lapinsky S, Clark E, Garg AX, Hiremath S, Klein D, Mazer CD, Richardson RM, Wilcox ME, **Friedrich JO**, Burns KE, Bagshaw SM, Canadian Critical Care Trials Group. Comparison of standard and accelerated initiation of renal replacement therapy in acute kidney injury. *Kidney Int*. 2015 Oct 1;88(4):897-904. Epub 2015 Jul 8. **Co-Investigator**.

Sklar MC, Beloncle F, Katsios CM, Brochard L, **Friedrich JO**. Extracorporeal carbon dioxide removal in patients with chronic obstructive pulmonary disease: a systematic review. *Intensive Care Med*. 2015 Oct 1;41(10):1752-62. Epub 2015 Jun 25. **Senior Responsible Author**.

Verma S, Eikelboom JW, Nidorf SM, Al-Omran M, Gupta N, Teoh H, **Friedrich JO**. Colchicine in cardiac disease: a systematic review and meta-analysis of randomized controlled trials. *BMC Cardiovasc Disord*. 2015 Aug 29;15:96. **Senior Responsible Author**.

Kitchlu A, Adhikari N, Burns KE, **Friedrich JO**, Garg AX, Klein D, Richardson RM, Wald R. Outcomes of sustained low efficiency dialysis versus continuous renal replacement therapy in critically ill adults with acute kidney injury: a cohort study. *BMC Nephrol*. 2015 Aug 4;16:127. **Co-Investigator**.

Chant C, Dewhurst NF, **Friedrich JO**. Do we need a pharmacist in the ICU? *Intensive Care Med*. 2015 Jul 1;41(7):1314-20. **Senior Responsible Author**.

Wald R, McArthur E, Adhikari NK, Bagshaw SM, Burns KE, Garg AX, Harel Z, Kitchlu A, Mazer CD, Nash DM, Scales DC, Silver SA, Ray JG, **Friedrich JO**. Changing incidence and outcomes following dialysis-requiring acute kidney injury among critically ill adults: a population-based cohort study. *Am J Kidney Dis*. 2015 Jun 1;65(6):870-7. Epub 2014 Dec 17. **Senior Responsible Author**.

Parshuram CS, Amaral AC, Ferguson ND, Baker GR, Etchells EE, Flintoft V, Granton J, Lingard L, Kirpalani H, Mehta S, Moldofsky H, Scales DC, Stewart TE, Willan AR, **Friedrich JO**, Canadian Critical Care Trials Group. Patient safety, resident well-being and continuity of care with different resident duty schedules in the intensive care unit: a randomized trial. *CMAJ*. 2015 Mar 17;187(5):321-9. Epub 2015 Feb 9. **Senior Responsible Author**.

Lim W, Meade M, Lauzier F, Zarychanski R, Mehta S, Lamontagne F, Dodek P, McIntyre L, Hall R, Heels-Ansdell D, Fowler R, Pai M, Guyatt G, Crowther MA, Warkentin TE, Devereaux PJ, Walter SD, Muscedere J, Herridge M, Turgeon AF, Geerts W, Finfer S, Jacka M, Berwanger O, Ostermann M, Qushmaq I, **Friedrich JO**, Cook DJ, PROphylaxis for ThromboEmbolic in Critical Care Trial Investigators, PROphylaxis for ThromboEmbolic in Critical Care Trial Investigators. Failure of anticoagulant thromboprophylaxis: risk factors in medical-surgical critically ill patients\*. Crit Care Med. 2015 Feb 1;43(2):401-10. **Co-Investigator**.

Cook DJ, Ferguson ND, Hand L, Austin P, Zhou Q, Adhikari NK, Danesh V, Arabi Y, Matte AL, Clarke FE, Mehta S, Smith O, Wise MP, **Friedrich JO**, Keenan SP, Hanna S, Meade MO, OSCILLation for ARDS Treated Early Investigators and the Canadian Critical Care Trials Group. Coenrollment in a randomized trial of high-frequency oscillation: prevalence, patterns, predictors, and outcomes. Crit Care Med. 2015 Feb 1;43(2):328-38. **Co-Investigator**.

Wald R, McArthur E, Adhikari NK, Bagshaw SM, Burns KE, Garg AX, Harel Z, Kitchlu A, Mazer CD, Nash DM, Scales DC, Silver SA, Ray JG, **Friedrich JO**. Changing Incidence and Outcomes Following Dialysis-Requiring Acute Kidney Injury Among Critically Ill Adults: A Population-Based Cohort Study. Am J Kidney Dis. 2014 Dec 17. **Senior Responsible Author**.

Curley GF, Shehata N, Mazer CD, Hare GM, **Friedrich JO**. Transfusion triggers for guiding RBC transfusion for cardiovascular surgery: a systematic review and meta-analysis. Crit Care Med. 2014 Dec 1;42(12):2611-24. **Senior Responsible Author**.

Dhanani S, Hornby L, Ward R, Baker A, Dodek P, Chamber-Evans J, Fowler R, **Friedrich JO**, Gow RM, Kutsogiannis DJ, McIntyre L, Momoli F, Morin K, Ramsay T, Scales D, Writer H, Yildirim S, Young B, Shemie S, Canadian Critical Care Trials Group and in collaboration with the Bertram Loeb Chair and Research Consortium in Organ and Tissue Donation. Vital signs after cardiac arrest following withdrawal of life-sustaining therapy: a multicenter prospective observational study. Crit Care Med. 2014 Nov 1;42(11):2358-69. **Coauthor or Collaborator**.

Kudlow P, Burns K, Adhikari N, Bell B, Klein DJ, Xie B, **Friedrich JO**, Wald R. Inter-hospital transfers and outcomes of critically ill patients with severe acute kidney injury: a multicentre cohort study. Crit Care. 2014 Sept 17;18(5):513. **Coauthor or Collaborator**.

Burns KE, Lellouche F, Nisenbaum R, Lessard MR, **Friedrich JO**. Automated weaning and SBT systems versus non-automated weaning strategies for weaning time in invasively ventilated critically ill adults. Cochrane Database Syst Rev. 2014 Sept 9:9. **Senior Responsible Author**.

Sud S, **Friedrich JO**, Adhikari NK, Taccone P, Mancebo J, Polli F, Latini R, Pesenti A, Curley MA, Fernandez R, Chan MC, Beuret P, Voggenreiter G, Sud M, Tognoni G, Gattinoni L, Guérin C. Effect of prone positioning during mechanical ventilation on mortality among patients with acute respiratory distress syndrome: a systematic review and meta-analysis. CMAJ. 2014 Jul 8;186(10):E381-90. **Coauthor or Collaborator**.

**Friedrich JO**, Baker AJ. Optimizing the approach to pain, agitation, and delirium in critical care. Can J Anaesth. 2014 Jul 1;61(7): 605-610. **Principal Author**.

Crowther M, Cook D, Guyatt G, Zytaruk N, McDonald E, Williamson D, Albert M, Dodek P, Finfer S, Vallance S, Heels-Ansdell D, McIntyre L, Mehta S, Lamontagne F, Muscedere J, Jacka M, Lesur O, Kutsogiannis J, **Friedrich JO**, Klinger JR, Qushmaq I, Burry L, Khwaja K, Sheppard JA, Warkentin TE, PROTECT collaborators, Canadian Critical Care Trials Group, Australian and New Zealand Intensive Care Society Clinical Trials Group. Heparin-induced thrombocytopenia in the critically ill: interpreting the 4Ts test in a randomized trial. *J Crit Care*. 2014 Jun 1;29(3):470.e7-15. **Coauthor or Collaborator**.

Wald R, Shariff SZ, Adhikari NK, Bagshaw SM, Burns KE, **Friedrich JO**, Garg AX, Harel Z, Kitchlu A, Ray JG. The association between renal replacement therapy modality and long-term outcomes among critically ill adults with acute kidney injury: a retrospective cohort study\*. *Crit Care Med*. 2014 Apr 1;42(4):868-77. **Coauthor or Collaborator**.

Burns KE, Lellouche F, Lessard MR, **Friedrich JO**. Automated weaning and spontaneous breathing trial systems versus non-automated weaning strategies for discontinuation time in invasively ventilated postoperative adults. *Cochrane Database Syst Rev*. 2014 Feb 13:2. **Senior Responsible Author**.

Adhikari NK, Dellinger RP, Lundin S, Payen D, Vallet B, Gerlach H, Park KJ, Mehta S, Slutsky AS, **Friedrich JO**. Inhaled nitric oxide does not reduce mortality in patients with acute respiratory distress syndrome regardless of severity: systematic review and meta-analysis. *Crit Care Med*. 2014 Feb 1;42(2):404-12. **Senior Responsible Author**.

Katsios C, Donadini M, Meade M, Mehta S, Hall R, Granton J, Kutsogiannis J, Dodek P, Heels-Ansdell D, McIntyre L, Vlahakis N, Muscedere J, **Friedrich JO**, Fowler R, Skrobik Y, Albert M, Cox M, Klinger J, Nates J, Bersten A, Doig C, Zytaruk N, Crowther M, Cook DJ. Prediction scores do not correlate with clinically adjudicated categories of pulmonary embolism in critically ill patients. *Can Respir J*. 2014 Jan 1; 21(1):36-42. **Coauthor or Collaborator**.

Chant C, Wang A, Burns KE, Dos Santos CC, Hwang SW, **Friedrich JO**, Smith OM. Critical illness in homeless persons is poorly studied: a systematic review of the literature. *Intensive care medicine*. 2014 Jan 1;40(1):123-5. **Coauthor or Collaborator**.

## Abstracts

Rittayamai N, Katsios C, Beloncle F, **Friedrich JO**, Brochard L. A systematic analysis of attributable mortality and morbidity of catheter-associated urinary tract infections in the ICU. *Critical Care Medicine*. 2014 Dec;42(12 Supp):A1532. **Coauthor or Collaborator**.

Danesh V, Austin P, Cook DJ, Hand L, Clarke F, Arroliga AC, Adhikari NK, **Friedrich JO**, Wise MP, Mcardle T, Zhou Q, Ferguson ND, Meade MO, OSCILLATE Investigators and CCCTG. Variability in time to local regulatory approvals for multicenter clinical trials - experiences in the OSCILLATE trial. *Intensive Care Medicine*. 2014 Oct;40(Supp 1):S234. **Coauthor or Collaborator**.

Mehta S, Meade M, **Friedrich JO**, Zhou Q, Iwashyna TJ, Lamontagne F, Bosma K, Burry L, Park P, Arroliga A, Dionne J, Dominguez-Cherit G, Foster D, Hall R, Hanna S, Matte A, Skrobik Y, Smith O, Taneja R, Ferguson ND, OSCILLATE Investigators and the Canadian Critical Care Trials Group. Variation in neuromuscular blocker use in a randomized controlled trial of high-frequency oscillation. *Intensive Care Medicine*. 2014 Oct;40(Supp 1):S92-S93. **Coauthor or Collaborator**.



## Editorials

Goldenberg NM, Leligdowicz A, Slutsky AS, **Friedrich JO**, Lee WL. Is nosocomial infection really the major cause of death in sepsis? Crit Care. 2014 Oct 1;18(5):540. **Coauthor or Collaborator.**

## Reviews

Rittayamai N, Katsios CM, Beloncle F, **Friedrich JO**, Mancebo J, Brochard L. Pressure-Controlled vs Volume-Controlled Ventilation in Acute Respiratory Failure: A Physiology-Based Narrative and Systematic Review. Chest. 2015 Aug 1;148(2):340-55. Epub 2015 Apr 30. **Co-Investigator.**

## Peer-Reviewed Fundings

- 2014 Sept – 2016 Aug **Co-Investigator.** The Frequency of Screening and SBT Technique Trial: The FAST Trial. Canadian Institutes of Health Research. PI: Burns K. Collaborator(s): Brochard L, Mehta S, Fan E, Seely A, Hand L, Kho M, Lee J, Lamontagne F, Cook D, Dodek P, Meade M. \$156,772.00 CAD. [Grants]
- 2014 Sept – 2016 Aug **Co-Investigator.** Liberation from Mechanical Ventilation and Screening: The RELEASE Trial. Ontario Thoracic Society/Ontario Lung Association. PI: Burns K. Collaborator(s): Brochard L, Mehta S, Fan E, Seely A, Hand L, Kho M, Lee J, Lamontagne F, Cook D, Dodek P, Meade M. \$50,000.00 CAD. [Grants]
- 2014 Sept – 2015 Aug **Co-Investigator.** The Senior Trial. Technology Evaluation in the Elderly Network. PI: Burns K. Collaborator(s): Brochard L, Mehta S, Fan E, Dodek P, Seely A, Hand L, Kho M, Cook D, Meade M. \$100,000.00 CAD. [Grants]
- 2013 Mar – 2015 Mar **Co-Investigator.** OPTIMAL Selection for and Timing to Start Renal Replacement Therapy in Critically Ill Older Patients with Acute Kidney Injury (OPTIMAL-AKI) Technology Evaluation in the Elderly Network.. PI's: Bagshaw S, Wald R. Collaborator(s): Adhikari NKJ, Burns K. \$384,087.00 CAD [Grants]
- 2009 Jul – 2014 Jun **Co-Investigator.** The OSCILLation for ARDS Treated Early (OSCILLATE) Study Canadian Institutes for Health Research (Randomized Controlled Trials). PI's: Meade M, Ferguson. Collaborator(s): Ronco J, Jacka M, Keenan S, et al. \$3,791,391.00 CAD. [Clinical Trials]

## Invited Lectures and Presentations

### International

2014 Jun 28 **Invited Speaker.** Western Thoracic Surgical Association - 40th Annual Meeting. Dual anti-platelet therapy in patients with acute coronary syndromes undergoing CABG: A meta-analysis of randomized trials. Dana Point, California, United States.

### Provincial

2015 Jan 30 **Speaker.** Mortality Outcomes in Critical Care Trials. International Forum for Acute Care Trialists (InFACT) Outcome Measures Working Group. Lake Louise, Alberta, Canada.

2014 Oct 3 **Invited Speaker.** Department of Chemistry, Dalhousie University. 2014 Coffin Lecture: "Were the Med Keeners Right?" Nova Scotia, Halifax, Canada.

### Local

2015 Oct 28 **Moderator.** RCT-The HYPER2S Trial and Editorial Comment. Critical Care Canada Forum. Toronto, Ontario, Canada.

2015 Oct 28 **Moderator.** Monitoring. Critical Care Canada Forum. Toronto, Ontario, Canada.

2015 Oct 27 **Invited Speaker.** Fluid Balance in AKI Patients on Dialysis. Critical Care Canada Forum. Toronto, Ontario, Canada.

2015 Oct 26 **Moderator.** Old Concepts, New Ideas. Critical Care Canada Forum Fellows' Day. Toronto, Ontario, Canada.

2015 Jun 5 **Invited Speaker.** Acute Renal Failure and Renal Replacement Therapy in ICU. Canadian Critical Care Review. Toronto, Ontario, Canada. - Review of treatment of acute renal failure in critically ill patients for Canadian critical care fellow review course.

2014 Jun 6 **Invited Speaker.** Canadian Critical Care Review. Acute Renal Failure and Renal Replacement Therapy in ICU - Review of treatment of acute renal failure in critically ill patients for Canadian. Toronto, Ontario, Canada.

2014 May 7 **Invited Speaker.** Canadian Association of Critical Care Nurses Toronto Chapter Annual Conference. Acute Renal Failure in Critical Care. Toronto, Ontario, Canada.

2014 May 7 **Invited Speaker.** Department of Oncology, St. Michael's Hospital. ICU Admission of Critically-Ill Cancer Patients. Toronto, Ontario, Canada.

## **Honours and Awards**

- |                     |                                                                                                                                    |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 2014 Oct            | The 2014 Arthurs - Li Ka Shing Knowledge Institute Research Academy Awards. St. Michael's Hospital "Most Frequently Cited Article" |
| 2014 Mar – 2017 Feb | Clinician Scientist Award – Phase 2 Renewal. Canadian Institutes for Health Research (CIHR)                                        |
| 2013 Jul – 2014 Jun | Best Teacher, St. Michael's Hospital Site. University of Toronto , Interdepartmental Division of Critical Care.                    |

**Dr. Sara Gray (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Petrosoniak A, Owen J, **Gray S**. Done a thoracotomy lately? An intensive, simulation-based curriculum to teach rare procedures in emergency medicine. Journal of Graduate Medical Education. 2015 Dec. **Senior Responsible Author**.

Quan G, McGowan M, Lebovic G, **Gray S**. Should Canada implement early warning scores in the ED for septic shock patients? CMAJ Open. 2015 Dec (Trainee publication, PGY-5). **Senior Responsible Author**.

Ly D, Thippavong S, **Gray S**, Hanbidge A, Atri M, Khalili K. When the appendix is not seen on ultrasound for right lower quadrant pain: does the interpretation of emergency department physicians correlate with diagnostic performance? Ultrasound Quarterly. 2015 Nov. In Press (Trainee publication). **Coauthor or Collaborator**.

Brooks SC, Scales DC, Pinto R, Dainty KN, Racz EM, Gaudio M, Amaral ACKB, **Gray S**, Friedrich JO, Chapman M, Dorian P, Fam N, Fowler RA, Hayes CW, Baker A, Crystal E, Madan M, Ruberfeld G, Smith OM, Morrison LJ. The post cardiac arrest consult team (PACT): impact on care for hospitalized out-of-hospital cardiac arrest patients. Critical Care Medicine. 2015 Nov. **Coauthor or Collaborator**.

Rose L, Scales DC, Atzema C, Burns K, **Gray S**, Doing C, Kiss A, Rubenfeld G, Lee J. Emergency Department length of stay for critical care admissions: a population-based study. Am J Resp Crit Care Med. 2015 Oct. **Coauthor or Collaborator**.

Howes DH, **Gray SH**, Brooks SC, Boyd G, Djogovic D, Golan E, Green RS, Jacka M, Sinuff T, Chaplin T, Smith O, Owen J, Szulewski A, Murphy L, Irvine S, Jichici D, Muscedere J. Canadian Guidelines for the use of targeted temperature management after cardiac arrest: a joint statement from the Canadian Critical Care Society (CCCS), Canadian Neurocritical Care Society (CNCCS) and the Canadian Critical Care Trials Group (CCCTG). Resuscitation. 2015 Sep;98:48-63. **Coauthor or Collaborator**.

Norouzi N, Carver S, Dear T, Bromberg S, **Gray S**, Kahan M, Aarabi P, Borgundvaag B. Time-frequency visualization of alcohol withdrawal tremors. IEEE transactions on human-machine systems. 2015 Mar (Trainee publication). **Coauthor or Collaborator**.

Dennis Djogovic, Shavaun MacDonald, Andrea Wensel, Rob Green, Osama Loubani, Patrick Archambault, Simon Bordeleau, David Messenger, Adam Szulewski, Jon Davidow, Janeva Kircher, **Sara Gray**, Katherine Smith, James Lee, Jean Marc Benoit, Dan Howes for the CAEP Critical Care Committee (C4). Vasopressor and Inotrope Use in Canadian Emergency Departments: Evidence Based Consensus Guidelines. Canadian Journal of Emergency Medicine. 2015 Jan;17(1):1-2. **Coauthor or Collaborator**.

## Abstracts

Taylor S, McGowan M, MacKinnon D, Hayes C, Barratt L, Gaunt K, Nagatu E, **Gray S**. Use of a severe sepsis bundle can improve ED care: preliminary findings from a quality initiative. *Canadian Journal of Emergency Medicine*. 2014 May;16(Supp 1);S110-111. **Senior Responsible Author**.

**Gray S**, Simard R, Lee JS. Which test leads to the shorter ED length of stay for patients with appendicitis: Ultrasound or CT? *Canadian Journal of Emergency Medicine*. 2014 May;16(Supp 1);S89. **Principal Author**.

Carver S, Norouzi N, Bromberg S, **Gray S**, Kahan M, Aarabi P, Borgundvaag B. A novel approach to the assessment of alcohol withdrawal in the Emergency Department *Canadian Journal of Emergency Medicine*. 2014 May;16(Supp 1);S80. **Coauthor or Collaborator**.

Taylor S, McGowan M, MacKinnon D, Hayes C, Barratt L, Gaunt K, Nagatu E, **Gray S**. Improving quality measures of ED sepsis care through staff education, feedback and use of a standardized protocol. *Canadian Journal of Emergency Medicine*. 2014 May;16(Supp 1);S 33. **Senior Responsible Author**

Morrison LJ, Rac VE, Dorian P, Cheskes S, Fowler R, Dainty KN, Gaudio M, Racz E, Parsons J, Kiss A, Slutsky A, Bierman AS, Abramson BL, **Gray S**, Scales D. Gender differences in access to post-arrest care: a SPARC network cohort study. *Canadian Journal of Emergency Medicine*. 2014 May;16(Supp 1);S28. **Coauthor or Collaborator**.

Brooks S, Scales D, Dainty K, **Gray S**, Pinto R, Racz E, Gaudio M, et al. Post arrest consult team: a knowledge translation strategy for post-cardiac arrest care. *Critical Care*. 2014;18(Supp 1)S178. **Coauthor or Collaborator**.

Morrison L, Rac V, Dorian P, Cheskes S, Fowler R, Zahn C, Dainty K, Gaudio M, Racz E, Parsons J, Kiss A, Slutsky A, Bierman A, Abramson B, **Gray S**, Scales D. Gender differences in access to post-arrest care: a SPARC network cohort study *Prehospital Emergency Care*. 2014;18(1);132. **Coauthor or Collaborator**.

## Peer-Reviewed Fundings

2013 Jul – 2015 Jul **Co-Investigator**. A Novel Approach to the Assessment of Alcohol Withdrawal in the Emergency Department. MSH-UHN AMO Innovation Fund. PI: Borgundvaag B. Collaborator: Kahan M. \$101,581.00 CAD. [Grants]

2012 Jul – 2014 Jun **Co-Investigator**. Pilot KT intervention to address gender differences in access to post arrest care. Canadian Institutes of Health Research (CIHR). PI: Morrison, Laurie. \$218,000.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Dec 9 **Presenter.** Socking it to sepsis: a journey to improve quality ED sepsis care. IHI National Forum. Orlando, Florida, United States. Presenter(s): McGowan M, Barratt L, Guiyab M, Swift S, MacKinnon D, Hayes C, Gaunt K, Gray S.
- 2015 Nov 8 **Presenter.** Incidence and outcomes of out-of-hospital maternal cardiac arrest and compliance with resuscitation guidelines. AHA Resuscitation Science Symposium. Orlando, Florida, United States. Presenter(s): Lipowicz AA, Cheskes S, **Gray S**, Jeejeebhoy F, Lee J, Scales DC, Zhan C, Morrison LJ. (Trainee Presentation)
- 2015 Oct 12 **Presenter.** Allocation of critical care resources during mass disaster: a scoping review. European Society of Emergency Medicine (EuSEM). Turin, Italy. Presenter(s): Acton C, McGowan M, Ziegler C, Gray S. (Trainee Presentation).
- 2015 Oct 18 **Presenter.** Red Blood Cell Transfusions and Iron Therapy for Patients Presenting with Acute Upper GI Bleeding: A Survey of Gastroenterologists. American College of Gastroenterology Conference. Hawaii, United States. Presenter(s): Fortinsky KJ, Martel M, Razik R, Spiegle G, Grover S, Pavenski K, Weizman A, Gallinger Z, Kwapisz L, Mehta S, **Gray S**, Barkun A. (Trainee Presentation)
- 2015 Aug 25 **Presenter.** A quantitative evaluation of alcohol withdrawal tremors. Engineering in Medicine and Biology Conference (EMBC). Milan, Italy. Presenter(s): Aarabi P, Norouzi N, Dear T, Carver S, Bromberg S, **Gray S**, Kahan M, Borgundvaag B.
- 2015 Jun 26 **Invited Speaker.** Preparing your hospital for a disaster. SMACC. Chicago, Illinois, United States.
- 2015 Jun 25 **Invited Speaker.** Optimizing care of ICU patients in the ED. SMACC. Chicago, Illinois, United States.
- 2015 May 22 **Presenter.** Bundling elements of sepsis care can improve ED care for patients admitted to Internal Medicine. Sepsis Unplugged. Nottingham, United Kingdom. Presenter(s): Gray S, McGowan M, Barratt L, MacKinnon D, Chan C, Hayes C. Moderated poster.
- 2015 May 21 **Presenter.** Improving quality measures of ED sepsis care through huddles, performance feedback and use of a standardized protocol. Sepsis Unplugged. Nottingham, United Kingdom. Presenter(s): Gray S, Barratt L, McGowan M, MacKinnon D, Hayes C. Moderated poster.

- 2015 May 21 **Presenter.** Would you like a lactate? Boosting lactate measurement in the ED for early sepsis recognition. Sepsis unplugged. Nottingham, United Kingdom. Presenter(s): Gray S, McGowan M, Barratt L, MacKinnon D, Gaunt K, Leung V, Modi G, Hayes C. Moderated poster.
- 2015 May 20 **Presenter.** Improving sepsis care with a collaborative Emergency-Critical Care pathway. Sepsis Unplugged. Nottingham, United Kingdom. Presenter(s): Gray S, McGowan M, Barratt L, MacKinnon D, Hayes, C. Moderated poster.
- 2015 May 13 **Presenter.** The development of an iOS app to measure tremor in patients with alcohol withdrawal syndrome. Society for Academic Emergency Medicine. San Diego, California, United States. Presenter(s): Dear T, Carver S, Norouzi N, Bromberg S, Rohringer T, Kahan M, **Gray S**, Aarabi P, McLeod S, Borgundvaag B. Innovation spotlight presentation. (Trainee Presentation)
- 2015 Apr 22 **Presenter.** Improving quality measures of ED sepsis care through huddles, performance feedback and use of a standardized protocol. International forum on quality and safety in healthcare. London, United Kingdom. Presenter(s): Gray S, McGowan M, MacKinnon D, Barratt L, Hayes C. Moderated poster.
- 2014 Dec **Presenter.** Radiological Society of North America (RSNA). When the appendix is not seen on ultrasound for RLQ pain: does the interpretation of emergency department physicians correlate with diagnostic performance? Poster. Presenters: Ly D, Thippavong S, Khalili K. Chicago, Illinois, United States.
- 2014 Dec 8 **Presenter.** Institute for Healthcare Improvement. Improving quality measures of ED sepsis care through staff education, feedback and use of a standardized protocol – Poster. Presenters: McGowan M, MacKinnon D, Barratt L, Taylor S, Negatu E, Hayes C. Orlando, Florida, United States.
- 2014 Dec 8 **Presenter.** Institute for Healthcare Improvement. Disaster Befalls: optimizing the emergency department's preparedness for mass disaster – Storyboard. Presenters: Kokoski C, Barratt L, Jolley J, Gaunt K, McGowan M, Riley J. Orlando, Florida, United States.
- 2014 Aug 29 **Presenter.** International Engineering in Medicine and Society Meeting (IEEE). Time-frequency visualization of alcohol withdrawal tremors – Poster. Presenters: Carver S, Norouzi N, Bromberg S, Gray S, Kahan M, Arabi P, Borgundvaag B. Chicago, Illinois, United States.
- 2014 Jun 14 **Presenter.** International Conference on Emergency Medicine. Improving quality measures of ED sepsis care through staff education, feedback and use of a protocol – Poster. Presenters: Taylor S, McGowan M, MacKinnon D, Hayes C, Barratt L, Gaunt K, Nagatu E. Hong Kong, China.

- 2014 Jun 14 **Presenter.** International Conference on Emergency Medicine. Use of a severe sepsis management bundle can improve ED care: preliminary findings from a quality initiative - Poster. Presenters: Taylor S, McGowan M, MacKinnon D, Hayes C, Barratt L, Gaunt K, Nagatu E. Hong Kong, China.
- 2014 Jun 13 **Presenter.** International Conference on Emergency Medicine. A novel approach to the assessment of alcohol withdrawal in the ED - Poster. Presenters: Carver S, Kahan M, Borgundvaag B. Hong Kong, China.
- 2014 Mar 17 **Presenter.** 34th International Symposium on Intensive Care and Emergency Medicine. Post-arrest consult team: a knowledge translation strategy for post-cardiac arrest care – Poster. Presenters: Brooks SC, Scales D, Dainty K, Gray S, Pinto R, Racz E, Gaudio M, Amaral A, Baker A, Chapman M, Crystal E, Dorian P, Fam N, Fowler R, Friedrich J, Madan M, Rubenfeld G, Smith O, Morrison LJ. Brussels, Belgium.
- 2014 Jan 10 **Presenter.** National Association of EMS physicians. Gender differences in access to post-arrest care: a SPARC network cohort study - Poster. Presenters: Morrison LJ, Rac V, Dorian P, Cheskes S, Fowler R, Zahn C, Dainty K, Gaudio M, Racz E, Parsons J, Kiss A, Slutsky A, Bierman A, Abramson B, Gray S, Scales D. Tucson, Arizona, United States.

## Provincial

- 2015 Jun 1 **Presenter.** Bundling elements of sepsis care can improve ED care for patients admitted to Internal Medicine. Canadian Association of Emergency Physicians. Edmonton, Alberta, Canada. Presenter(s): **Gray S**, McGowan M, Barratt L, Chrystal C, MacKinnon D, Hayes C. Moderated poster.
- 2015 Jun 1 **Presenter.** Administration of the CIWA protocol for the treatment of alcohol withdrawal syndrome in the emergency department. Canadian Association of Emergency Physicians. Edmonton, Alberta, Canada. Presenter(s): Dear TE, Carver SM, Rohringer T, Norouzi N, Bromberg S, McLeod S, Kahan M, **Gray S**, Aarabi P, Borgundvaag B. Poster presentation. (Trainee Presentation)
- 2015 Jun 1 **Presenter.** Disaster befalls: optimizing our emergency departments' preparedness for mass disaster. Canadian Association of Emergency Physicians. Edmonton, Alberta, Canada. Presenter(s): Kokoski C, McGowan M, Barratt L, Jolley J, Gaunt K, Riley J, **Gray S**. Poster presentation.
- 2015 May 31 **Presenter.** Improving severe sepsis care with a collaborative Emergency - Critical Care pathway. Canadian Association of Emergency Physicians. Edmonton, Alberta, Canada. Presenter(s): **Gray S**, McGowan M, Barratt L, MacKinnon D, Hayes C. Oral presentation.



## National

- 2014 Jun 4 **Presenter.** Canadian Association of Emergency Physicians. Improving quality measures of ED sepsis care through staff education, feedback and use of a standardized protocol – Poster. Presenters: Taylor S, McGowan M, MacKinnon D, Hayes C, Barratt L, Gaunt K, Nagatu E. Ottawa, Ontario, Canada.
- 2014 Jun 3 **Presenter.** Canadian Association of Emergency Physicians. A novel approach to the assessment of alcohol withdrawal in the Emergency Department – Poster. Presenters: Carver S, Norouzi N, Bromberg S, Kahan M, Aarabi P, Borgundvaag B. Ottawa, Ontario, Canada.
- 2014 Jun 2 **Presenter.** Canadian Association of Emergency Physicians. Use of a severe sepsis management bundle can improve ED care: preliminary findings from a quality initiative – Poster. Presenters: Taylor S, McGowan M, MacKinnon D, Hayes C, Barratt L, Gaunt K, Nagatu E. Ottawa, Ontario, Canada.
- 2014 Jun 2 **Invited Speaker.** Canadian Association of Emergency Physicians. Peter Brindley and Sara Gray Resuscitation: Stump the Experts. Ottawa, Ontario, Canada.
- 2014 Jun 1 **Presenter.** Canadian Association of Emergency Physicians. Which test leads to the shorter ED length of stay for patients with appendicitis: Ultrasound or CT? Poster. Presenters: Simard R, Lee JS. Ottawa, Ontario, Canada.

## Local

- 2015 Nov 2 **Keynote Speaker.** Optimizing Critical Care resuscitation in your ED. University Health Network EM Conference. Toronto, Ontario, Canada.
- 2015 May 26 **Speaker.** Developing triage criteria for scarce critical care resources. University of Toronto EM Faculty Research Day. Toronto, Ontario, Canada. Presenter(s): Clare Acton. (Trainee Presentation).
- 2015 May 8 **Invited Speaker.** Critical Care Cases: getting best practice to the bedside. Emergency Medicine Update. Toronto, Ontario, Canada.
- 2014 Oct 28 **Presenter.** Critical Care Canada Forum. Use of a severe sepsis management bundle can improve ED care: findings from a collaborative Emergency-Critical Care Quality Initiative – Poster. Presenters: McGowan M, MacKinnon D, Barratt L, Taylor S, Nagatu E, Hayes C. Toronto, Ontario, Canada.
- 2014 Oct 9 **Presenter.** University of Toronto Centre for Quality Improvement and Patient Safety Symposium (C-QUIPS). Improving quality measures of ED sepsis care through staff education, feedback and the use of a standardized protocol – Poster. Presenters: McGowan M, MacKinnon D, Barratt L, Taylor A, Gaunt K, Nagatu E, Hayes C. Toronto, Ontario, Canada.

- 2014 Jul 29      **Presenter.** Keenan Research Summer Student Program. Out of hospital maternal cardiac arrest incidence and outcomes – Poster. Presenters: Lipowicz A, Lee J, Zhan C, Morrison L. Toronto, Ontario, Canada.
- 2014 Jun 25      **Invited Speaker.** Mount Sinai Hospital Emergency Department. Grand Rounds. Delivering quality sepsis care in your ED. Toronto, Ontario, Canada.
- 2014 May 10      **Invited Speaker.** Emergency Medicine Update. NYGH. Combating shock plenary: which vasopressor should I use?; Critical Care Conundrums Toronto, Ontario, Canada.
- 2014 Apr 8      **Invited Speaker.** Resuscitation in Motion (RiM 2014). Acute ED - resuscitation of sepsis. Toronto, Ontario, Canada.
- 2014 Mar 26      **Invited Speaker.** University Health Network Emergency Department. Sepsis management in the ED. Toronto, Ontario, Canada.
- 2014 Jan 8      **Invited Speaker.** St. Michael's Hospital Emergency Department. Grand Rounds: Trouble shooting a ventilator. Toronto, Ontario, Canada.

### **Honours and Awards**

- 2015 May      Outstanding Clinical Teaching Award, Emergency Medicine, Dept of Medicine, Faculty of Medicine, University of Toronto Division of Emergency Medicine. (Postgraduate MD)
- 2014 Mar      Toronto's Best Doctors. Toronto Life Magazine

**Dr. David Hall (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Article**

Kim R, **Hall D**, Cutz E, Knowles M, Nelligan K, Nykamp K, Zariwala M, Dell S. The Role of Molecular Genetic Analysis in the Diagnosis of Primary Ciliary Dyskinesia. *Annals of the American Thoracic Society*. 2014 Feb 05. **Coauthor or Collaborator**.

**Invited Lectures and Presentations**

**Provincial**

2014 Apr 26           **Invited Speaker**. Canadian Respiratory Conference. Non-CF Bronchiectasis: A Multidisciplinary Approach to Management Primary Ciliary Dyskinesia. Speakers: Jarand J, McIlwaine M. Calgary, Alberta, Canada.

**Local**

2015 Oct 25           **Moderator**. Sepsis - New Paradigms. Critical Care Canada Forum. Toronto.

2015 Jun 19           **Invited Speaker**. Primary Ciliary Dyskinesia: The Beat Goes On. Division of Respiriology, Dept of Medicine, Faculty of Medicine. Toronto.

2014 Mar 27           **Invited Speaker**. The Fred A Litwin Family Centre in Genetic Medicine. Primary Ciliary Dyskinesia. Toronto, Ontario, Canada.

2014 Mar 27           **Co-Chair**. Interdepartmental Division of Critical Care Medicine. Critical Care Physiology Rounds. Speaker: del SorboL, Gas Exchange - Oxygenation Extracorporeal CO2 removal in Acute Exacerbations of COPD. Toronto, Ontario, Canada.

**Dr. Christopher Hayes (St. Michael's Hospital)**

**Peer-Reviewed Fundings**

2012 Oct – present **Principal Investigator.** SEARCHED: Sepsis Early Antibiotics and Resuscitation to Control Infected Patients in the Emergency Department. AHSC Alternate Funding Plan Innovation Fund – MOHLTC. \$82,455.00 CAD. [Grants]

**Peer-Reviewed Publications**

**Journal Articles**

**Christopher W. Hayes**, Paul B. Batalden, Don Goldmann. A 'work smarter, not harder' approach to improving healthcare quality. *BMJ Quality and Safety*. 2015 Feb;24(2):100-2. **Principal Author.**

**Invited Lectures and Presentations**

**International**

- 2015 May 30 **Invited Speaker.** Creating Highly Adoptable Improvement. Institute for Health Improvement Middle East Forum. Doha, Qatar.
- 2015 Apr 22 **Presenter.** Highly Adoptable Improvement: a model and tool to improve sustainable adoption of QI initiatives. *BMJ International Forum on Quality and Safety in Healthcare*. London, London, City of, United Kingdom. Presenter(s): Hayes C, Goldmann D.
- 2015 Apr 24 **Invited Speaker.** Becoming a Harkness Fellow. Commonwealth Fund. London, London, United Kingdom.
- 2015 Apr 17 **Invited Speaker.** Surgical Safety Checklist Works. Canadian Patient Safety Institute. Riyadh, Ar Riyāḍ, Saudi Arabia.
- 2015 Apr 15 **Invited Lecturer.** Highly Adoptable Improvement. Canadian Patient Safety Institute. Riyadh, Ar Riyāḍ, Saudi Arabia.
- 2015 Apr 14 **Invited Speaker.** Surgical Safety Checklist Works. Canadian Patient Safety Institute. Riyadh, Ar Riyāḍ, Saudi Arabia.
- 2015 Feb 2 **Invited Speaker.** Patient Safety Course. Accreditation Canada. Riyadh, Ar Riyāḍ, Saudi Arabia.

## Provincial

- 2015 Sep 18 **Invited Speaker.** Pursuing Triple Aim & Sustaining Adoptable Improvement. Canadian Foundation of Healthcare Improvement. Saguenay, Quebec, Canada. Presenter(s): Hayes C, Verma J, de Villa E.
- 2015 Jun 17 **Invited Speaker.** Safer Healthcare Now - Falls Prevention. Canadian Orthopedics Association. Vancouver, British Columbia, Canada.

## Local

- 2015 Nov 13 **Invited Speaker.** Highly Adoptable Improvement. Health Quality Ontario - IDEAS Program. Toronto, Ontario, Canada.
- 2015 Oct 8 **Presenter.** Highly Adoptable Improvement. Centre for Quality Improvement and Patient Safety Annual Symposium. Toronto, Ontario, Canada.
- 2015 Sep 29 **Invited Speaker.** Highly Adoptable Improvement. Dept of Gastroenterology, St. Michael's Hospital. Toronto, Ontario, Canada.
- 2015 Sep 16 **Distinguished Speaker.** Achieving Excellence...Sustainably: Lessons from high performing healthcare organizations. Trillium Health Partners. Mississauga, Ontario, Canada.
- 2015 May 27 **Invited Speaker.** Using a Quality Lense to Execute Strategy. St.Michael's Hospital - Leadership Insights. Toronto, Ontario, Canada.
- 2015 May 22 **Keynote Speaker.** Highly Adoptable Improvement. Trillium Health Partners. Mississauga, Ontario, Canada.
- 2015 May 19 **Invited Speaker.** Highly Adoptable Improvement. Centre for Quality Improvement of Patient Safety (C-QulPS). Toronto, Ontario, Canada.
- 2015 May 2 **Invited Speaker.** Efficiency in Healthcare. IHI U of T Open School Chapter. Toronto, Ontario, Canada.
- 2015 Feb 18 **Invited Speaker.** What Is All This Quality Stuff About? St.Michael's Hospital - Faculty Development Day. Toronto, Ontario, Canada.
- 2015 Feb 11 **Invited Lecturer.** Clinical Decision Making in Medicine. Osgoode Hall Law School. Toronto, Ontario, Canada.
- 2015 Feb 11 **Invited Speaker.** To Study or Improve? That IS the Question. St.Michael's Hospital. Toronto, Ontario, Canada.
- 2015 Feb 10 **Invited Speaker.** Engaging Clinicians By Creating Highly Adoptable Improvement. Canadian Patient Safety Institute. Toronto, Ontario, Canada.
- 2015 Feb 5 **Invited Speaker.** Surgical Safety Checklist Works. Canadian Patient Safety Institute. Toronto, Ontario, Canada.

- 2015 Jan 29      **Attendee.** Quality of Care Reviews and Disclosures. Toronto, Ontario, Canada.
- 2015 Jan 15      **Invited Speaker.** Highly Adoptable Improvement. Health Quality Ontario - IDEAS Program. Toronto, Ontario, Canada.
- 2015 Jan 14      **Invited Speaker.** Highly Adoptable Improvement Model. IHPME. Toronto, Ontario, Canada.

### **Honours and Awards**

- 2013 May – 2014 Aug      Harkness Fellowship in Health Care Policy and Practice. The Commonwealth Fund.

**Dr. Patricia Houston (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Papadakos CT, Papadakos J, Catton P, **Houston P**, McKernan P, Jusko Friedman A. From theory to pamphlet: the 3Ws and an H process for the development of meaningful patient education resources. J Cancer Educ. 2014 Jun 1;29(2):304-10. **Coauthor or Collaborator**.

**Invited Lectures and Presentations**

**International**

- 2015 Nov **Invited Speaker**. Global health education done locally: Educating to improve care for the disadvantaged. 2015 East-West Alliance Global Symposia. Groningen, Netherlands.
- 2015 Oct **Invited Speaker**. Why Mentorship Matters. You Too Can be an Anesthesia Leader – An International Perspective. American Society of Anesthesiology Annual Meeting. San Diego, California, United States.
- 2015 Mar **Keynote Speaker**. Effective Mentoring Skills. Academy of Surgical Educators, Royal Australasian College of Surgeons. Melbourne, Victoria, Australia.
- 2015 Mar **Invited Speaker**. How can we teach QI Competencies. Royal Australasian College of Surgeons. Melbourne, Victoria, Australia.
- 2015 Mar **Invited Speaker**. Collaborative Care – \_Competencies Needed for the \_Future of Healthcare. International Medical Symposium - Royal Australasian College of Surgeons. Melbourne, Victoria, Australia.
- 2015 Feb **Invited Speaker**. Perioperative myocardial infarction: which beta-blocker is more protective? Doctors Updates 2015. Val d'Isere, Savoie, France.
- 2015 Feb **Invited Speaker**. When is blood the right fluid? Doctors Updates 2015. Val d'Isere, Savoie, France.

**Provincial**

- 2015 Nov **Facilitator**. Aligning your simulation program with your healthcare institution's strategic objectives. Simulation Summit 2015. Banff, British Columbia, Canada. Presenter(s): Doug Campbell, Nazanin Khodadoust.
- 2015 Apr **Moderator**. Interprofessional Education. Canadian Conference on Medical Education. Vancouver, British Columbia, Canada.
- 2015 Apr **Moderator**. Simulation. Canadian Conference on Medical Education. Vancouver, British Columbia, Canada.

2015 Apr **Moderator.** Leadership/Mentorship. Canadian Conference on Medical Education. Vancouver, British Columbia, Canada.

2014 Feb **Presenter.** Drug Shortages. UBC Whistler Anesthesia Summit. Whistler, British Columbia, Canada. Presenter(s): Houston, PL.

### **National**

2015 Jun **Presenter.** Choosing Wisely Canada – How to do Better With Less. Canadian Anesthesiologists Society. Ottawa, Ontario, Canada. Presenter(s): Bryson G, Cheng D, Hare G, **Houston P**, Kirkham K, Meineri M.

2014 Apr **Moderator.** Education Innovation - Interprofessional Education. Canadian Conference on Medical Education. Ottawa, Ontario, Canada.

2014 Apr **Moderator.** Education Innovation - Faculty Development. Canadian Conference on Medical Education. Ottawa, Ontario, Canada.

2014 Feb **Speaker.** Drug Shortages. CMA Specialist Forum. Ottawa, Ontario, Canada. Presenter(s): Houston, PL.

2014 Feb **Speaker.** Drug Shortages. ACUDA Management Committee. Ottawa, Ontario, Canada. Presenter(s): Houston, PL.

### **Local**

2014 Sep **Invited Speaker.** Canadian Anesthesiologists' Society Update. 59th Annual Ontario Anesthesia Meeting. Toronto, Ontario, Canada.

2014 Dec 2 **Invited Speaker.** Which is Better: Interprofessional practice in real time or focused continuing professional development to acquire the knowledge and skills of interprofessional practice? University of Toronto. Toronto, Ontario, Canada. Co-Presenter: Russell A.

### **Honours and Awards**

2014 Jun Jeffrey Lozon Physician Leadership Award, St Michaels Hospital, Ontario, Canada. (Distinction)



**Dr. Mark Kataoka (St. Michael's Hospital)**

**Peer-Reviewed Publication**

**Journal Article**

Baker JE, Pavenski K, Pirani RA, White A, **Kataoka M**, Waddell JP, Ho A, Schemitsch EH, Lo N, Bogoch E, Pronovost A, Luke K, Howell A, Nassis A, Tsui AK, Tanzini RM, Mazer CD, Freedman J, Hare GM. Universal Tranexamic Acid Therapy to Minimize Transfusion for Major Joint Arthroplasty: A Retrospective Analysis of Protocol Implementation. Canadian Journal of Anesthesia. 2015 Aug 13. Accompanied by Editorial: Tranexamic acid: When is enough (data) enough? Rally FE Can J Anesth. In Press. **Coauthor or Collaborator.**

**Dr. David Klein (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

O Rewa, Wald R, Adhikari N, Hladunewich M, Lapinsky S, Muscedere J, Bagshaw S, Smith O, Lebovic G, Kuint R, **Klein DJ**. Neutrophil Gelatinase-Associated Lipocalin (NGAL) to Predict Adverse Events in Acute Kidney Injury: A Prospective Observational Cohort Study. Journal of Critical Care. 2015 Aug 25. In Press (Trainee publication). **Senior Responsible Author**.

Charbonney E, Tsang J, Li Y, **Klein DJ**, Duque P, Houde L, Romaschin A, Marshall JC. Endotoxemia following multiple trauma: Risk Factors and Prognostic Implications. Critical Care Medicine. 2015 Aug. In Press. **Coauthor or Collaborator**.

Kitchlu A, Adhikari N, Burns KE, Friedrich JO, Garg AX, **Klein DJ**, Richardson RM, Wald R. Outcomes of sustained low efficiency dialysis versus continuous renal replacement therapy in critically ill adults with acute kidney injury: a cohort study. BMC Nephrology. 2015 Aug;16(127) (Trainee publication). **Coauthor or Collaborator**.

Wald R, Adhikari N, Smith O, Weir M, Pope K, Cohen A, Thorpe K, McIntyre L, Lamontagne F, Soth M, Herridge M, Lapinsky S, Clark E, Garg A, Hiremath S, **Klein, DJ**, Mazer D, Richardson Rt, Bagshaw S. STandard vs Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury (STARRT-AKI): A pilot randomized controlled trial. Kidney International. 2015 May. In Press. **Coauthor or Collaborator**.

Kudlow P, Burns K, Adhikari N, Bell B, **Klein DJ**, Xie B, Friedrich J, Wald R. Inter-Hospital Transfers and Outcomes Of Critically Ill Patients With Severe Acute Kidney Injury: A Multicentre Cohort Study. Critical Care. 2014 Oct. **Coauthor or Collaborator**

Ronco C, **Klein DJ**. Polymyxin B Hemoperfusion (PMX-DHP): A Mechanistic Perspective Critical Care. 2014 Jun 9. **Senior Responsible Author**.

**Klein DJ**, Foster D, Schorr C, Kazempour K, Walker P, Dellinger P. The EUPHRATES trial (Evaluating the Use of Polymyxin B Hemoperfusion in a Randomized controlled trial of Adults Treated for Endotoxemia and Septic shock): study protocol for a randomized controlled trial. Trials. 2014 Jun;15(218). **Principal Author**.

Huynh T, Baker R, Bierman A, **Klein DJ**, Rudoler D, ET AL. Exploring Accountable Care in Canada. Canadian Foundation for Health Innovation. 2014 Mar. **Coauthor or Collaborator**.

Foster D, **Klein DJ**, Guadagni G, Walker PM. Endotoxin removal: Gringing the mission to North America. Blood Purif. 2014 Jan 20;37(Suppl 1);14-17. **Coauthor or Collaborator**.

## Peer-Reviewed Fundings

- 2014 Oct - 2015 Sep **Co-Investigator.** STandard versus initiation of Renal Replacement Therapy in Acute Kidney injury (STARRT-AKI). Canadian Institutes of Health Research (CIHR). Operating Grant, Grant New. PI: Wald, R. Collaborator(s): Ms. Orla Marie SMITH, Dr. Mark Douglas SOTH, Dr. Henry Thomas STELFOX, Dr. Amit GARG, et al. \$100,000.00 CAD. [Clinical Trials]
- 2013 Apr – Present **Co-Principal Investigator.** A Phase II Randomized Placebo Controlled Trial testing *Withania somnifera* in Volunteers with Amyotrophic Lateral **Sclerosis** (NIALS). ALS Canada. PI: Zinman L. \$500,000.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Feb 17 **Invited Speaker.** Polymyxin B binding Filter in Sepsis: The EUPHRATES Trial. CRRT. San Diego, United States. Plenary Lecture: CRRT 2015.
- 2014 Jun 9 **Invited Speaker.** Spectral Diagnostics Investigator Meeting. MODS score as an enrollment criteria. New York, New York, United States.
- 2014 Mar 7 **Invited Speaker.** CRRT 2014. CRRT Polymyxin B binding Filter in Sepsis: The EUPHRATES Trial Plenary Lecture; The Burden of Endotoxin in Health and Disease: Where else does it hurt? San Diego, California, United States.

### National

- 2014 Sept 16 **Invited Speaker.** Canadian Association for Healthcare Reimbursement. Using Real World Evidence - A Research Perspective. Ottawa, Ontario, Canada.

### Local

- 2014 Nov 1 **Invited Speaker.** Canadian Critical Care Foundation - Spectral Diagnostics EUPHRATES Update. Toronto, Ontario, Canada.

**Dr. John Laffey (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Walshe CM, **Laffey JG**, Kevin L, O'Toole D. Sepsis protects the myocardium and other organs from subsequent ischaemic/reperfusion injury via a MAPK-dependent mechanism. *Intensive Care Med Exp*. 2015 Dec. Dec 2015; 3(1);35. **Coauthor or Collaborator**.

Zambelli V, Bellani G, Borsa R, Pozzi F, Grassi A, Scanziani M, Castiglioni V, Masson S, Decio A, **Laffey JG**, Latini R, Pesenti A. Angiotensin-(1-7) improves oxygenation, while reducing cellular infiltrate and fibrosis in experimental Acute Respiratory Distress Syndrome. *Intensive Care Med Exp*. 2015 Dec. 2015 Dec;3(1);44. **Coauthor or Collaborator**.

Luo AA, Fanelli V, Spieth PM, Uhlig S, **Laffey JG**, Slutsky AS, Zhang H. INF/IR-8: MIDKINE PLAYS A KEY ROLE IN THE PATHOGENESIS OF ACUTE LUNG INJURY. *Shock*. 2015 Oct. 2015 Oct.;44 Suppl 2:9. **Coauthor or Collaborator**.

Vargas M, Sutherland Y, Antonelli M, Brunetti I, Corcione A, **Laffey JG**, Putensen C, Servillo G, Pelosi P. Tracheostomy procedures in the intensive care unit: an international survey. *Crit Care*. 2015 Aug 13. 2015 Aug 13; 19(1):291. **Coauthor or Collaborator**.

Zhang R, Pan Y, Fanelli V, Wu S, Luo AA, Islam D, Han B, Mao P, Ghazarian M, Zeng W, Spieth PM, Wang D, Khang J, Mo H, Liu X, Uhlig S, Liu M, **Laffey JG**, Slutsky AS, Li Y, Zhang H. Mechanical Stress and the Induction of Lung Fibrosis via the Midkine Signaling Pathway. *Am J Respir Crit Care Med*. 2015 Aug. 2015 Aug;192(3):315-23. **Coauthor or Collaborator**.

Devaney J, Horie S, Masterson C, Elliman S, Barry F, O'Brien T, Curley GF, O'Toole D, **Laffey JG**. Human mesenchymal stromal cells decrease the severity of acute lung injury induced by E. coli in the rat. *Thorax*. 2015 Jul. 2015 July;70(7):625-35. **Senior Responsible Author**.

Contreras M, Masterson C, **Laffey JG**. Permissive hypercapnia: what to remember. *Curr Opin Anaesthesiol*. 2015 Feb;28(1):26-37. **Senior Responsible Author**.

Curley GF, **Laffey JG**. Future therapies for ARDS. *Intensive Care Med*. 2015 Feb;41(2):322-6. **Senior Responsible Author**.

Hayes M, Masterson C, Devaney J, Barry F, Elliman S, O'Brien T, O'Toole D, Curley GF, **Laffey JG**. Therapeutic Efficacy of Human Mesenchymal Stromal Cells in the Repair of Established Ventilator-induced Lung Injury in the Rat. *Anesthesiology*. 2015 Feb;122(2):363-73. **Senior Responsible Author**.

MacLoughlin RJ, Higgins BD, Devaney J, O'Toole D, Laffey JG, O'Brien T. Aerosol-Mediated Delivery of AAV2/6-IkB $\alpha$  Attenuates Lipopolysaccharide-Induced Acute Lung Injury in Rats. *Hum Gene Ther*. 2015 Jan;26(1):36-46. **Coauthor or Collaborator**.

Hayes M, Curley GF, Ansari B, Devaney J, O'Toole D, **Laffey JG**. Pulmonary overexpression of inhibitor  $\kappa$ B $\alpha$  decreases the severity of ventilator-induced lung injury in a rat model. *Br J Anaesth*. 2014 Dec. 113(6):1046-54. **Senior Responsible Author**.

McAuley DF, **Laffey JG**, O'Kane CM, Perkins GD, Mullan B, Trinder J, Johnston P, Hopkins PA, Johnston AJ, McDowell C, McNally C, and the HARP-2 investigators\* on behalf of the Irish Critical Care Trials Group. Simvastatin in Acute Respiratory Distress Syndrome. *N Engl J Med*. 2014 Oct. 371 (18):1694-703. **Coauthor or Collaborator**.

Cabrera-Benitez NE, **Laffey JG**, Parotto M, Spieth PM, Villar J, Zhang H, Slutsky AS. Mechanical ventilation-associated lung fibrosis in acute respiratory distress syndrome: a significant contributor to poor outcome. *Anesthesiology*. 2014 Jul. 21(1):189-98. **Coauthor or Collaborator**.

Antunes MA, **Laffey JG**, Pelosi P, Rocco PR. Mesenchymal stem cell trials for pulmonary diseases. *J Cell Biochem*. 2014 Jun. 115(6):1023-32. **Coauthor or Collaborator**.

Curley GF, **Laffey JG**. Acidosis in the critically ill - balancing risks and benefits to optimize outcome. *Crit Care*. 2014 Apr 3. 18(2):129. **Senior Responsible Author**.

Maron-Gutierrez T, **Laffey JG**, Pelosi P, Rocco PR. Cell-based therapies for the acute respiratory distress syndrome. *Curr Opin Crit Care*. 2014 Feb. 20(1):122-31. **Coauthor or Collaborator**.

Masterson C, Jerkic M, Curley GF, **Laffey JG**. Mesenchymal stromal cell therapies: potential and pitfalls for ARDS. *Minerva Anesthesiol*. 2014 Feb. 81(2):179-94. **Senior Responsible Author**.

McAuley DF, Curley GF, Hamid UI, **Laffey JG**, Abbott J, McKenna DH, Fang X, Matthay MA, Lee JW. Clinical Grade Allogeneic Human Mesenchymal Stem Cells Restore Alveolar Fluid Clearance in Human Lungs Rejected for Transplantation. *Am J Physiol Lung Cell Mol Physiol*. 2014 Feb. **Coauthor or Collaborator**.

Curley GF, Scott JA, **Laffey JG**. Therapeutic potential and mechanisms of action of mesenchymal stromal cells for Acute Respiratory Distress Syndrome. *Curr Stem Cell Res Ther*. 2014. 9(4):319-29. **Senior Responsible Author**.

## **Abstracts**

McDonnell MJ, Jones R, Crossfield G, Bourke S, Forrest I, Simpson J, Rutherford RM, **Laffey JG**, Griffin M, Pearson J, Ward C. Using Questionnaires To Measure The Impact Of Gastro-Esophageal Reflux In Chronic Lung Disease. *Am J Respir Crit Care Med*. 2014. **189; 2014: A1914**. **Coauthor or Collaborator**.

Horie S, Masterson C, Devaney J, O'Toole DP, **Laffey JG**. Assessing The Therapeutic Potential Of Human Mesenchymal Stromal Cell Conditioned Medium In In Vitro Models Of Acute Lung Injury. *Am J Respir Crit Care Med*. 2014. **189;2014: A3404**. **Senior Responsible Author**.

Devaney J, Horie S, Masterson C, O'Toole DP, **Laffey JG**. Optimal Dose And Mechanism Of Action Of Human Mesenchymal Stromal Cell Therapy In E.coli Induced Pneumonia In The Rat. *Am J Respir Crit Care Med*. 2014. **189;2014: A340**. **Senior Responsible Author**.

## Book Chapters

Contreras M, **Laffey JG**. Is Permissive Hypercapnia helpful or harmful? In: C Deutschman, P Neligan, editor(s). Elsevier; 2015. **Co-Principal Author**.

**Laffey JG**, Kavanagh BP. Hypercapnia (Acute Respiratory Failure). In: Andrew Webb, Derek Angus, Simon Finfer, Luciano Gattinoni, Mervyn Singer, editor(s). Oxford Textbook of Critical Care. Oxford University Press (Anticipated Publication Spring 2015); 2015. **Senior Responsible Author**.  
Neligan P, **Laffey JG**. Obstetric Physiology and Special Considerations in ICU. In: Andrew Webb, Derek Angus, Simon Finfer, Luciano Gattinoni, Mervyn Singer, editor(s). Oxford Textbook of Critical Care. Oxford University Press (Anticipated Publication Spring 2015); 2015. **Senior Responsible Author**.

Curley G, Kavanagh BP, **Laffey JG**. Hypo- and Hypercapnoea. Murray & Nadel's Textbook of Respiratory Medicine. 6<sup>th</sup> E. 2014. Elsevier Companies Inc. Editors: Broaddus V, Mason R, Murray J, Nadel J, King T, Ernst J, Lazarus S, Slutsky A. **Senior Responsible Author**.

Contreras M, **Laffey JG**, Kavanagh BP. Mechanical Ventilation, Permissive Hypercapnia. Encyclopedia of Trauma Care. 2014. Springer Companies Inc. Editors: Papadakos P, Gestring M, Lapinsky S. **Coauthor or Collaborator**.

Hassett P, **Laffey JG**, Kavanagh BP. Permissive Hypercapnia. Pediatric Critical Care. 2014. Springer-Verlag. Editor: Rimensberger P. **Coauthor or Collaborator**.

## Editorials

Steinberg BE, Goldenberg NM, **Laffey JG**. Extracorporeal membrane oxygenation for blastomycosis-related severe ARDS: a new indication as a rescue therapy? Can J Anaesth. 2015 Jul. 2015 July;62(7):731-5. **Senior Responsible Author**.

## Peer-Reviewed Fundings

- |                     |                                                                                                                                                                                                                                                                                                                             |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2014 Oct - 2017 Sep | <b>Co-Applicant (N. Rowan Principal Applicant)</b> . Enhancing the antimicrobial efficacy of mesenchymal stem cells (MSCs) for eliminating sepsis induced acute lung injury (ALI) using a novel combination of immune-stimulants. Health Research Board, Ireland. Project Grant. HRA-POR-2014-644. 288,000.00 EUR. [Grants] |
| 2014 Oct - 2017 Sep | <b>Co-Applicant (A. Nichol Principal Applicant)</b> . STandaRd Issue TrANsfusion versuS Fresher red blood cell Use in intenSive care (TRANSFUSE) – a randomised controlled trial. Health Research Board, Ireland. Project Grant. HRA-2014-DI-589. 750,000.00 EUR. [Grants]                                                  |
| 2014 Jul - 2015 Jun | <b>Principal Applicant</b> . Medically Licensed Mesenchymal Stem Cells for Acute Respiratory Distress Syndrome. European Research Council Proof-of-Concept Grant (ERC 2014-PoC). Programme Grant. 149,500.00 EUR. [Grants]                                                                                                  |

- 2013 Jul - 2015 **Applicant.** 2013 - 2015 Merit Award. Dept. of Anesthesia, University of Toronto. \$40,000.00 CAD. [Grants]
- 2012 Apr - 2015 Apr **Principal Applicant.** Investigation of therapeutic potential of Mesenchymal Stem Cells to aid repair following Acute Lung Injury. Health Research Board (HRB) (Ireland). Project Grant. 300,000.00 EUR. [Grants]
- 2004 May - 2015 Jun **Mentor and Joint Project Supervisor (with Prof P. McLoughlin).** Investigation of the efficacy of Hypercapnic acidosis on pulmonary sepsis induced ARDS. IRCSET Graduate Studentship Grant - Enterprise Ireland. PI: Nichol, Alistair (Conway Institute, UCD). 18,000.00 EUR. [Grants]
- 2014 Feb **Principal Investigator.** Operating Grant Award. Canadian Institutes for Health Research. \$750,000.00 CAD. [Grant]

## Invited Lectures and Presentations

### International

- 2014 Oct 3 **Invited Speaker.** Statins for ARDS: where are we now? Medical Grand Rounds, Galway University Hospitals. Galway, Ireland.
- 2014 Sept 30 **Invited Speaker.** LUNG SAFE Study: Results from the Northern Hemisphere; Drug induced ARDS; Three papers that changed my practice in Drug therapy for ARDS. European Society of Intensive Care Medicine (ESICM) Annual Conference. Bachelona, Spain.

### Provincial

- 2014 May 17 **Invited Speaker.** Cell based therapies for ARDS: Promise and Pitfalls. International Anesthesia Research Society Annual Scientific Conference., Montreal, Quebec, Canada.

### National

- 2014 Oct 31 – Nov 1 **Invited Speaker.** LUNG SAFE study Results; ARDS...cell therapies. Canadian Critical Care Forum. Toronto, Ontario, Canada.
- 2014 Oct 30 **Invited Speaker.** A clinical trial of MSC therapy for ARDS in Canada: Just do it! ARDS and Critical Illness Cell Therapy Symposium (ACCT) 2014, at the Canadian Critical Care Forum. Toronto, Ontario, Canada.
- 2014 Oct 29 **Invited Speaker.** How I use rescue therapies in severe ARDS patients; Conventional mechanical ventilation for ARDS in 2014. Severe Acute Respiratory Failure Master-Class, Canadian Critical Care Forum. Toronto, Ontario, Canada.

### Local

2015 Feb 6

**Invited Speaker.** Cell based therapies for ARDS. Society of Chinese Bioscientists in America – annual Toronto Chapter Meeting. Toronto, Ontario, Canada.

2014 Jun 10

**Invited Speaker.** When more CO<sub>2</sub> is less and more – a physiologic approach. University of Toronto Interdisciplinary Dept of Critical Care Annual Residents Day. Toronto, Ontario, Canada.



**Dr. Bernard Lawless (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

**Lawless B**, Jayasuriya C, Ritacca B, Dinsdale E, Kostrzewa L. Critical Care Response Team Roles and Education: Introduction of an E-learning tool. *Critical Care Medicine*. 2014 Apr. **Principal Author**.

**Lawless B**, Trpkovski J. A large scale Implementation of a Critical Care Surge Capacity Management Program across 202 critical care units. *Critical Care Medicine*. 2014 Apr. **Co-Principal Author**.

Fowler R, Cook D, Dodek P, **Lawless B**, Marshall J, et al. Critical Care Capacity in Canada During the Influenza A(H1N1) Pandemic of 2009-10: Results of a National Survey. *CMAJ*. 2014. **Coauthor or Collaborator**.

**Clinical Care Guidelines**

**Lawless B**, Jeschke M, Dal Cin A and the Provincial Burns Committee. Provincial Burns Consultation and Referral Guidelines. 2014 Mar. Available from: [www.criticalcareontario.ca](http://www.criticalcareontario.ca). **Coauthor or Collaborator**.

Nathens A, **Lawless L**, et al (Ontario Trauma Advisory Committee). Ontario Trauma Consultation and Referral Guidelines. (Canada); 2014 Jan. Available from: [http://www.criticalcareontario.ca/EN/Toolbox/Trauma%20and%20Burns%20Consultation%20Guidelines/CCSO\\_TraumaGuidelines\\_14x11-EN.pdf](http://www.criticalcareontario.ca/EN/Toolbox/Trauma%20and%20Burns%20Consultation%20Guidelines/CCSO_TraumaGuidelines_14x11-EN.pdf). **Coauthor or Collaborator**.

**Magazine Entries**

**Lawless B**. What Does Ontario's Provincial Life or Limb Policy Mean for Emergency Medical Services. *EMS Matters*. 2014 Jan(2013/2014):13-15. **Principal Author**.

**Manuals**

**Lawless B**, Fram N, Kostrzewa L, et al. Repatriation Guide. In: B. Lawless, editor(s). 2014. 12 p. Available from: [www.criticalcareontario.ca](http://www.criticalcareontario.ca). **Co-Principal Author**.

**Lawless B**, Kostrzewa L, Giwa M, et al. Life or Limb Policy Implementation Guide. In: B. Lawless, editor(s). Canada; 2014. 38 p. Available from: <http://www.criticalcareontario.ca/EN/Toolbox/Implementing%20Life%20or%20Limb%20Policy/2014%2002%2007%20EN%20Life%20or%20Limb%20Policy%20Implementation%20Guide%20Final.pdf>. **Senior Responsible Author**.

## Peer-Reviewed Fundings

- 2012 Oct – 2015 Sep **Co-Investigator.** Canadian Critical Care Knowledge Translation Network. Canadian Institutes of Health Research (CIHR). PI: Muscedere, John. Collaborator(s): Gibney N, Keenan S, Cook D, Dodek P, Heyland DK, Martin C, Scales D, et. al. \$599,611.00 CAD. [Grants]
- 2010 Jul – 2015 Jun **Decision Maker.** Trauma System Development in Canada: Overcoming the Challenges of Geography Through an Evaluation of Structures and Process. Canadian Institutes of Health Research (CIHR). PI: Nathens A. Collaborator(s): Rubinfeld G, Morrison LM, Gagliardi A, Pong R, Schuurman N, Cusimano M, Hameed M, Lawless B, Peters P, Snider C, Tallon J, Schwartz B, Pandya A. \$2,264,139.00 CAD. [Grants]

**Dr. Warren Lee (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Sugiyama M, Gamage A, Zyla R, Armstrong SM, Advani S, Advani A, Wang C, Lee WL. Influenza infection induces platelet-endothelial adhesion which contributes to lung injury. *Journal of Virology*. 2015 Dec 4. PMID: 26637453 (Trainee publication). **Senior Responsible Author.**

Steinberg BE, Goldenberg NM, Fairn GD, Kuebler WM, Slutsky AS, Lee WL. Is basic science disappearing from medicine? The decline of biomedical research in the medical literature. *FASEB J*. 2015 Oct 14. PMID: 26467794 (Trainee publication). **Senior Responsible Author.**

Schmidt EP, Kuebler WM, Lee WL, Downey GP. Adhesion Molecules: Master Controllers of the Circulatory System. *Comprehensive Physiology*. 2015 Sep. In Press. **Coauthor or Collaborator.** Armstrong SM, Sugiyama MG, Fung KY, Gao Y, Wang C, Levy AS, Azizi P, Roufaiel M, Zhu SN, Neculai D, Yin C, Bolz SS, Seidah NG, Cybulsky MI, Heit B, Lee WL. A novel assay uncovers an unexpected role for SR-BI in LDL transcytosis. *Cardiovasc Res*. 2015 Nov 1;108(2):268-77 (Trainee publication). **Senior Responsible Author.**

Yin J, Michalick L, Tang C, Tabuchi A, Goldenberg N, Dan Q, Awwad K, Wang L, Erfinanda L, Nouailles-Kursar G, Witzernath M, Vogelzang A, Lv L, Lee WL, Zhang H, Rotstein O, Kapus A, Szaszi K, Fleming I, Liedtke WB, Kuppe H, Kuebler WM. Role of Transient Receptor Potential Vanilloid 4 in Neutrophil Activation and Acute Lung Injury. *Am J Respir Cell Mol Biol*. 2015 Jul 29. [pub ahead of print]. **Coauthor or Collaborator.**

Pillon NJ, Azizi PM, Li YE, Liu J, Wang C, Chan KL, Hopperton KE, Bazinet RP, Heit B, Bilan PJ, Lee WL, Klip A. Palmitate-induced inflammatory pathways in human adipose microvascular endothelial cells promote monocyte adhesion and impair insulin transcytosis. *Am J Physiol Endocrinol Metab*. 2015 Jul 1;309(1):E35-44 (Trainee publication). **Senior Responsible Author.**

Sugiyama MG, Armstrong SM, Wang C, Hwang D, Leong-Poi H, Advani A, Advani S, Szaszi K, Tabuchi A, Kuebler WM, Van Slyke P, Dumont DJ, Lee WL. The Tie2-agonist Vasculotide rescues mice from severe influenza virus infection. *Scientific Reports*. 2015 Jun 5;5:11030. Available from: <http://www.nature.com/srep/2015/150605/srep11030/full/srep11030.html> (Trainee publication). **Senior Responsible Author.**

Wang C, Armstrong SM, Sugiyama MG, Tabuchi A, Krauszman A, Kuebler WM, Mullen B, Advani S, Advani A, Lee WL. Influenza Primes Human Lung Microvascular Endothelium to Leak upon Exposure to *Staphylococcus aureus*. *Am J Respir Cell Mol Biol*. 2015 Oct;53(4):459-70 (Trainee publication). **Senior Responsible Author.**

Azizi PM, Zyla RE, Guan S, Wang C, Liu J, Bolz SS, Heit B, Klip A, Lee WL. Clathrin-dependent entry and vesicle-mediated exocytosis define insulin transcytosis across microvascular endothelial cells. *Mol Biol Cell*. 2015 Feb 15;26(4):740-50 (Trainee publication). **Senior Responsible Author.**

Goldenberg NM, Steinberg BE, **Lee WL**, Wijeyesundera DN, Kavanagh BPLung-protective ventilation in the Operating Room: Time to Implement? Anesthesiology. 2014 Jul :121(1);184-8. **Coauthor or Collaborator.**

### Book Chapters

**Lee WL**, Slutsky A. Chapter 100: Acute Hypoxemic Respiratory Failure and ARDS. In: V. Courtney Broaddus, R. Mason, J. Ernst, T. King Jr, S. Lazarus, J. Murray, J. Nadel, AS Slutsky, M. Gotway, editor(s). Murray and Nadel's Textbook of Respiratory Medicine. 6th Edition. 2015. Principal Author.

### Editorials

Filewod N, **Lee W**. Is strengthening the endothelial barrier a therapeutic strategy for Ebola? International Journal of Infectious Diseases. 2015 May 12;36:78-79. Available from: <http://www.sciencedirect.com/science/article/pii/S1201971215001241> (Trainee publication). **Senior Responsible Author.**

Goldenberg NM, Leligdowicz A, Slutsky AS, Friedrich JO, **Lee WL**. Is nosocomial infection really the major cause of death in sepsis? Crit Care. 2014 Oct 1;18(5):540 (Trainee publication). **Senior Responsible Author.**

### Letters to Editor

Goldenberg NM, Steinberg BE, **Lee WL**, Wijeyesundera DN, Kavanagh BP. In reply. Anesthesiology. 2015 Feb 1;122(2):473-4. **Coauthor or Collaborator.**

### Peer-Reviewed Fundings

- |                      |                                                                                                                                                                                                                                                                                       |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 May - present   | <b>Principal Investigator.</b> Center for advanced dynamic imaging of tissue barriers: cellular processes and molecular interactions. Canadian Foundation for Innovation (CFI). John R. Evans Leaders Fund. Collaborator(s): Kapus, Andras and Szaszi, K. \$1,000,000.00 CAD [Grants] |
| 2015 Jun - 2020 Jun  | <b>Principal Investigator.</b> Molecular characterization of endothelial transcytosis by different tissue beds. <b>NSERC.</b> \$150,000.00 CAD. [Grants]                                                                                                                              |
| 2013 Jun – 2018 Sept | <b>Principal Applicant.</b> Influenza and acute lung injury: priming, platelets and permeability. Canadian Institutes of Health Research (CIHR). \$480,000.00 CAD. [Grants]                                                                                                           |
| 2013 Jun – 2018 Sept | <b>Co-Investigator.</b> Macrophage lipotoxic inflammation: Its mechanism, impact on insulin delivery and interplay with muscle Canadian Institutes of Health Research (CIHR). PI: Klip A. \$750,000.00 [Grants]                                                                       |
| 2013 Jul – 2014 Jun  | <b>Co-Investigator.</b> Sunlife Financial Equipment Grant for Diabetes Research. PI: Advani A. \$30,000.00 CAD. [Grants]                                                                                                                                                              |

- 2012 Jul – 2015 Jul **Co-Investigator.** Endothelial and transendothelial events underlying immune cell infiltration of metabolic tissues in pre-diabetes Canadian Diabetes Association. PI: Klip A. \$300,000.00 CAD. [Grants]
- 2011 Nov – 2016 Apr **Principal Investigator.** Pathogenesis of severe disease from influenza - role and mechanisms of microvascular leak. Early Research Award, Ministry of Research and Innovation (Ontario) \$150,000.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Nov 26 **Invited Speaker.** Beyond mechanical ventilation - Novel therapeutic approaches for ARDS. Life and Care Symposium, Swiss Paraplegic Centre. Nottwil, Switzerland.
- 2015 May **Invited Speaker.** Endothelial activation and barrier disruption in the pathogenesis of influenza. American Thoracic Society (ATS) International Conference. Denver, USA.
- 2015 Apr **Presenter.** A Tie2 agonist protects mice from lethal influenza infection (Poster). Experimental Biology, International Conference. United States. Trainee presentation - Michael Sugiyama; awarded a **Graduate Student Poster Prize.**
- 2015 Mar 30 **Presenter.** A novel assay for insulin transcytosis reveals an unexpected role for clathrin (Poster). Experimental Biology 2015. Boston, Massachusetts, United States. Trainee presentation by Paymon Azizi
- 2014 Nov **Presenter.** Novel Assay for Detection of LDL Transcytosis Across Coronary Endothelium Reveals an Unexpected Role for SR-B1 (Poster). American Heart Association, Scientific Sessions 2014. Chicago, Illinois, United States. Selected as a **top-rated abstract** for ATVB Early Career Reception.
- 2014 May 21 **Presenter.** Acetylsalicylic acid improves acute lung injury from influenza infection. American Thoracic Society International Conference. California, United States. **Podium presentation** by my student Susan Armstrong. (Trainee Presentation)

### Provincial

- 2014 Apr 25 **Presenter.** LDL crosses the coronary artery endothelium by transcytosis. IRCM, Montreal. Quebec, Canada. **Podium presentation** by my student Susan Armstrong, awarded **Best Abstract.** (Trainee Presentation).

## National

- 2015 Sep 25 **Invited Speaker.** Loss of lung endothelial barrier integrity is the cause of death from influenza in mice. London-Toronto Lung Research Symposium. Ontario, Canada.
- 2014 **Invited Speaker.** Around and through - endothelial permeability as a therapeutic target. RGE Murray Seminar Series, University of Western Ontario (Dept of Microbiology and Immunology).

## Local

- 2014 Nov **Invited Speaker.** Critical Care Canada. Novel Therapies for Severe Influenza. Toronto, Ontario, Canada.
- 2015 Dec 4 **Invited Speaker.** Around or through? Endothelial permeability as a therapeutic target. Hospital for Sick Children - Cell Biology Research Rounds (Toronto, Canada).
- 2015 Oct 14 **Invited Speaker.** Transition to an Independent Investigator - Finding and Starting a new academic job. Clinician Investigator Program, University of Toronto. Ontario, Canada.
- 2014 Aug 6 **Invited Speaker.** Around and through – the physiology and pathology of endothelial permeability. Sunnybrook Research Institute – Biological Sciences Platform, Invited Speaker Seminar Series.
- 2015 Apr 24 **Invited Speaker.** Research-in-Progress: Around and through - endothelial permeability as a therapeutic target. University of Toronto Division of Respiriology. Ontario, Canada.
- 2014 Jan 13 **Invited Speaker.** Influenza and acute lung injury. Matrix Dynamics Group, University of Toronto. Canada.

## Media Appearances

- 2015 June 23 **Interviewed by Metro News.** Drug shows promise in fighting fatal flu symptoms. Interviewer: Megan Haynes.
- 2015 Jun 15 **Interviewed by Global News about our new drug for influenza.** Novel drug to treat influenza (highlighting our recent publication). Interviewer: Global News. Global. Canada.
- 2015 Jun 5 **Interviewed by CTV News.** Novel drug to treat influenza (highlighting our recent publication). Interviewer: Pauline Chan. CTV. Canada.

**Dr. John Marshall (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Johnstone J, Meade M, **Marshall JC**, Heyland DK, Surette MG, Bowdish DME, Lauzier F, Thebane L, Cook DJ. Probiotics: Prevention of Severe Pneumonia and Endotracheal Colonization Trial—PROSPECT: protocol for a feasibility randomized pilot trial. Pilot and Feasibility Studies. 2015 Dec;1:19. **Coauthor or Collaborator.**

Maslove DM. Diagnostic Utility of Different Blood Components in Gene Expression Analysis of Sepsis. Shock. 2015 Nov 25. [Epub ahead of print]. **Co-Principal Author.**

Godard S, Herry C, Westergaard P, Scales N, Brown S, Burns K, Mehta S, Jacono F, Kubelik D, Maziak DE, **Marshall JC**, Martin C, Seely A. Practice variation in spontaneous breathing trial performance and documentation. Can Respir J. 2015 Nov 17. **Coauthor or Collaborator.**

**Marshall JC**, Kwong W, Kommaraju K, Burns KE. Determinants of Citation Impact in Large Clinical Trials in Critical Care: The Role of Investigator-led Clinical Trials Groups. Crit Care Med. 2015 Nov 13. **Principal Author.**

Silversides JA, Ferguson AJ, McAuley DF, Blackwood B, **Marshall JC**, Fan E. Fluid strategies and outcomes in patients with acute respiratory distress syndrome, systemic inflammatory response syndrome and sepsis: a protocol for a systematic review and meta-analysis. Syst Rev. 2015 Nov 12;4(1):162. **Senior Responsible Author.**

Charbonney E, Tsang JY, Li Y, Klein D, Duque P, Romaschin A, **Marshall JC**. Endotoxemia Following Multiple Trauma: Risk Factors and Prognostic Implications. Crit Care Med. 2015 Oct 27. **Senior Responsible Author.**

Daneman N, Rishu AH, Xiong W, Bagshaw SM, Dodek P, Hall R, Kumar A, Lamontagne F, Lauzier F, **Marshall JC**, Martin CM, McIntyre L, Muscedere J, Reynolds S, Stelfox HT, Cook DJ, Fowler RA, Canadian Critical Care Trials Group. Duration of Antimicrobial Treatment for Bacteremia in Canadian Critically Ill Patients. Crit Care Med. 2015 Oct 22. **Coauthor or Collaborator.**

Rimmelé T, Payen D, Cantaluppi V, **Marshall JC**, Gomez H, Gomez A, Murray P, Kellum JA; ADQI XIV Workgroup. Immune Cell Phenotype and Function in Sepsis. Shock. 2015 Oct 12. [Epub ahead of print]. **Coauthor or Collaborator.**

Vincent JL, **Marshall JC**, Dellinger RP, Simonson SG, Guntupalli K, Levy MM, Singer M, Malik R, OUTCOMEREA Study Group. Talactoferrin in Severe Sepsis: Results From the Phase II/III Oral tAlactoferrin in Severe sepsIS Trial. Crit Care Med. 2015 Sep 1;43(9):1832-1838. **Coauthor or Collaborator.**

Blackwood B, Ringrow S, Clarke M, **Marshall JC**, Rose L, Williamson P, McAuley D. Core Outcomes in Ventilation Trials (COVenT): protocol for a core outcome set using a Delphi survey with a nested randomised trial and observational cohort study. *Trials*. 2015 Aug 20;16(1):368. **Coauthor or Collaborator.**

Blackwood B, **Marshall JC**, Rose L. Progress on core outcome sets for critical care research. 2015 Aug 8. **Coauthor or Collaborator.**

Bertolini G, Nattino G, Langer M, Tavola M, Crespi D, Mondini M, Rossi C, Previtali C, **Marshall JC**, Poole D, GiViTI. The role of the intensive care unit in real-time surveillance of emerging pandemics: the Italian GiViTI experience. *Epidemiol Infect*. 2015 Jun 29:1-5. **Coauthor or Collaborator.**

**Marshall JC**. Understanding the Global Burden of Pediatric Sepsis. *Am J Respir Crit Care Med*. 2015 May 15;191(10):1096-1098. **Principal Author.**

Tawadros PS, Powers KA, Ailenberg M, Birch SE, **Marshall JC**, Szaszi K, Kapus A, Rotstein OD. Oxidative Stress Increases Surface Toll-Like Receptor 4 Expression in Murine Macrophages via Ceramide Generation. *Shock*. 2015 May 4. **Coauthor or Collaborator.**

Lee CM, Gupta S, Parodo J, Wu J, **Marshall JC**, Hu J. The uncovering of ESE-1 in human neutrophils: implication of its role in neutrophil function and survival. *Genes Immun*. 2015 Apr 23. **Coauthor or Collaborator.**

Daneman N, Rishu AH, Xiong W, Bagshaw SM, Cook DJ, Dodek P, Hall R, Kumar A, Lamontagne F, Lauzier F, **Marshall JC**, Martin CM, McIntyre L, Muscedere J, Reynolds S, Stelfox HT, Fowler RA, Canadian Critical Care Trials Group. Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE): study protocol for a pilot randomized controlled trial. *Trials*. 2015 Apr 18;16(1):173. **Coauthor or Collaborator.**

D'Aragon F, Belley-Côté EP, Meade MO, Lauzier F, Adhikari NK, Briel M, Lalu M, Kanji S, Asfar P, Turgeon AF, Fox-Robichaud A, **Marshall JC**, Lamontagne F. Blood Pressure Targets for Vasopressor Therapy - A Systematic Review. *Shock*. 2015 Apr 18. **Coauthor or Collaborator.**

Fowler RA, Abdelmalik P, Wood G, Foster D, Gibney N, Bandrauk N, Turgeon AF, Lamontagne F, Kumar A, Zarychanski R, Green R, Bagshaw SM, Stelfox HT, Foster R, Dodek P, Shaw S, Granton J, Lawless B, Hill A, Rose L, Adhikari NK, Scales DC, Cook DJ, **Marshall JC**, Martin C, Jouvét P, Canadian Critical Care Trials Group and The Canadian ICU Capacity Group. Critical Care capacity in Canada: results of a national cross-sectional study. *Crit Care*. 2015 Apr 1;19(1):133. **Coauthor or Collaborator.**



Edwards AM, Arrowsmith CH, Bountra C, Bunnage ME, Feldmann M, Knight JC, Patel DD, Prinos P, Taylor MD, Sundström M, Barker P, Barsyte D, Bengtson MH, Bell C, Bowness P, Boycott KM, Buser-Doepner C, Carpenter CL, Carr AJ, Clark K, Das AM, Dhanak D, Dirks P, Ellis J, Fantin VR, Flores C, Fon EA, Frail DE, Gileadi O, O'Hagan RC, Howe T, Isaac JT, Jabado N, Jakobsson PJ, Klareskog L, Knapp S, Lee WH, Lima-Fernandes E, Lundberg IE, **Marshall JC**, Massirer KB, MacKenzie AE, Maruyama T, Mueller-Fahrnow A, Muthuswamy S, Nanchahal J, O'Brien C, Oppermann U, Ostermann N, Petrecca K, Pollock BG, Poupon V, Prinjha RK, Rosenberg SH, Rouleau G, Skingle M, Slutsky AS, Smith GA, Verhelle D, Widmer H, Young LTSGC. Open Source Target-Discovery Partnership. Preclinical target validation using patient-derived cells. *Nat Rev Drug Discov*. 2015 Mar 1;14(3):149-50. **Coauthor or Collaborator**.

Peng Q, Jia SH, Parodo J, Ai Y, **Marshall JC**. Pre-B cell colony enhancing factor induces Nampt-dependent translocation of the insulin receptor out of lipid microdomains in A549 lung epithelial cells. *Am J Physiol Endocrinol Metab*. 2015 Feb 15;308(4):E324-33. **Senior Responsible Author**.

Cameron JI, Chu LM, Matte A, Tomlinson G, Chan L, Thomas C, Friedrich JO, Mehta S, Lamontagne F, Levasseur M, Ferguson ND, Adhikari NKJ, Rudkowski JC, Meggison H, Skrobik Y, Flannery J, Bayley M, Batt J, dos Santos C, Abbey SE, Tan A, Lo V, Mathur S, Parotto M, Morris D, Flockhart L, Fan E, Lee CM, Wilcox ME, Ayas N, Choong K, Fowler R, Scales DC, Sinuff T, Cuthbertson BH, Rose L, Robles P, Burns S, Cypel M, Singer L, Chaparro C, Chow C-W, Keshavjee S, Brochard L, Hebert P, Slutsky AS, **Marshall JC**, Cook D, Herridge MS, for the RECOVER Program Investigators (Phase 1: towards RECOVER) and the Canadian Critical Care Trials Group. The RECOVER Program: One-Year Outcomes in Caregivers of Critically Ill Patients Mechanically Ventilated for 7 Days. *N. Engl. J. Med*. 2015. In Press. **Coauthor or Collaborator**.

Rimmer E, Houston BL, Kumar A, Abou-Setta AM, Friesen C, **Marshall JC**, Rock G, Turgeon AF, Cook DJ, Houston DS, Zarychanski R. The efficacy and safety of plasma exchange in patients with sepsis and septic shock: a systematic review and meta-analysis. *Crit Care*. 2014 Dec 20. 18(6):699. **Coauthor or Collaborator**.

Fowler RA, Mittmann N, Geerts WH, Heels-Ansdell D, Gould MK, Guyatt G, Krahn M, Finfer S, Pinto R, Chan B, Ormanidhi O, Arabi Y, Qushmaq I, Rocha MG, Dodek P, McIntyre L, Hall R, Ferguson ND, Mehta S, **Marshall JC**, Doig CJ, Muscedere J, Jacka MJ, Klinger JR, Vlahakis N, Orford N, Seppelt I, Skrobik YK, Sud S, Cade JF, Cooper J, Cook D. Economic evaluation of the prophylaxis for thromboembolism in critical care trial (E-PROTECT): study protocol for a randomized controlled trial. *Trials*. 2014 Dec 20. 15(1):502. **Coauthor or Collaborator**.

Fowler RA, Mittmann N, Geerts W, Heels-Ansdell D, Gould MK, Guyatt G, Krahn M, Finfer S, Pinto R, Chan B, Ormanidhi O, Arabi Y, Qushmaq I, Rocha MG, Dodek P, McIntyre L, Hall R, Ferguson ND, Mehta S, **Marshall JC**, Doig CJ, Muscedere J, Jacka MJ, Klinger JR, Vlahakis N, Orford N, Seppelt I, Skrobik YK, Sud S, Cade JF, Cooper J, Cook D, Canadian Critical Care Trials Group, Australia and New Zealand Intensive Care Society Clinical Trials Group. Cost-effectiveness of dalteparin vs unfractionated heparin for the prevention of venous thromboembolism in critically ill patients. *JAMA*. 2014 Nov 26. 312(20):2135-45. **Coauthor or Collaborator**.

dos Santos C, **Marshall JC**. Bridging lipid metabolism and innate host defense. *Sci Transl Med*. 2014 Oct 15. 6(258): 258-41. **Senior Responsible Author**.

Waechter J, Kumar A, Lapinsky SE, **Marshall JC**, Dodek P, Arabi Y, Parrillo JE, Dellinger RP, Garland A, Cooperative Antimicrobial Therapy of Septic Shock Database Research Group. Interaction between fluids and vasoactive agents on mortality in septic shock: a multicenter, observational study\*. Crit Care Med. 2014 Oct 1. 42(10):2158-68. **Coauthor or Collaborator.**

Weiss SL, Fitzgerald JC, Faustino EV, Festa MS, Fink EL, Jouvet P, Bush JL, Kissoon N, **Marshall JC**, Nadkarni VM, Thomas NJ, Pediatric Acute Lung Injury and Sepsis Investigators Network and Australia and New Zealand Intensive Care Society Investigators. Understanding the global epidemiology of pediatric critical illness: the power, pitfalls, and practicalities of point prevalence studies. Pediatr Crit Care Med. 2014 Sept 1. 15(7):660-6. **Coauthor or Collaborator.**

**Marshall JC.** ACP Journal Club. Review: Selective digestive decontamination reduces mortality more than chlorhexidine in general ICU patients. Ann Intern Med. 2014 Aug 19. 161(4):JC9. **Principal Author.**

De Waele J, Lipman J, Sakr Y, **Marshall JC**, Vanhems P, Barrera Groba C, Leone M, Vincent JL, EPIC II Investigators. Abdominal infections in the intensive care unit: characteristics, treatment and determinants of outcome. BMC Infect Dis. 2014 Jul 29. 14:420. **Coauthor or Collaborator.**

Lalu MM, Moher D, **Marshall JC**, Fergusson D, Mei SH, Macleod M, Griffin G, Turgeon AF, Rudnicki M, Fishman J, Avey MT, Skidmore B, Grimshaw JM, Stewart DJ, Singh K, McIntyre L, Canadian Critical Care Translational Biology Group. Efficacy and safety of mesenchymal stromal cells in preclinical models of acute lung injury: a systematic review protocol. Syst Rev. 2014 May 23. 3:48. **Coauthor or Collaborator.**

Vincent JL, **Marshall JC**, Namendys-Silva SA, François B, Martin-Loeches I, Lipman J, Reinhart K, Antonelli M, Pickkers P, Njimi H, Jimenez E, Sakr Y, ICON investigators. Assessment of the worldwide burden of critical illness: the Intensive Care Over Nations (ICON) audit. Lancet Respir Med. 2014 May 1. 2(5):380-6. **Coauthor or Collaborator.**

Blackwood B, Clarke M, McAuley DF, McGuigan PJ, **Marshall JC**, Rose L. How outcomes are defined in clinical trials of mechanically ventilated adults and children. Am J Respir Crit Care Med. 2014 Apr 15. 189(8):886-93. **Coauthor or Collaborator.**

Jia SH, Parodo J, Charbonney E, Tsang JL, Jia SY, Rotstein OD, Kapus A, **Marshall JC**. Activated neutrophils induce epithelial cell apoptosis through oxidant-dependent tyrosine dephosphorylation of caspase-8. Am J Pathol. 2014 Apr 1. 184(4):1030-40. **Senior Responsible Author.**

**Marshall JC.** Why have clinical trials in sepsis failed? Trends Mol Med. 2014 Apr 1. 20(4):195-203. **Principal Author.**

Seely AJ, Bravi A, Herry C, Green G, Longtin A, Ramsay T, Fergusson D, McIntyre L, Kubelik D, Maziak DE, Ferguson N, Brown SM, Mehta S, Martin C, Rubenfeld G, Jacono FJ, Clifford G, Fazekas A, **Marshall JC**, Canadian Critical Care Trials Group (CCCTG). Do heart and respiratory rate variability improve prediction of extubation outcomes in critically ill patients? Crit Care. 2014 Apr. 18(2):65. **Coauthor or Collaborator.**

Bloos F, Thomas-Rüddel D, Rüddel H, Engel C, Schwarzkopf D, **Marshall JC**, Harbarth S, Simon P, Riessen R, Keh D, Dey K, Weiß M, Toussaint S, Schädler D, Weyland A, Ragaller M, Schwarzkopf K, Eiche J, Kuhnle G, Hoyer H, Hartog C, Kaisers U, Reinhart K. Impact of compliance with infection management guidelines on outcome in patients with severe sepsis: a prospective observational multi-center study. *Crit Care*. 2014 Mar 3. 18(2):R42. **Coauthor or Collaborator**.

Trop S, **Marshall JC**, Mazer CD, Gupta M, Dumont DJ, Bourdeau A, Verma S. Perioperative cardiovascular system failure in South Asians undergoing cardiopulmonary bypass is associated with prolonged inflammation and increased Toll-like receptor signaling in inflammatory monocytes. *J Surg Res*. 2014 Mar 1. 187(1):43-52. **Coauthor or Collaborator**.

St-Onge M, Mandelzweig K, **Marshall JC**, Scales DC, Granton J. Critical care trainees' career goals and needs: A Canadian survey. *Can Respir J*. 2014 Mar 1. 21(2):93-5. **Coauthor or Collaborator**.

Dunning JW, Merson L, Rohde GG, Gao Z, Semple MG, Tran D, Gordon A, Olliaro PL, Khoo SH, Bruzzone R, Horby P, Cobb JP, Longuere KS, Kellam P, Nichol A, Brett S, Everett D, Walsh TS, Hien TT, Yu H, Zambon M, Ruiz-Palacios G, Lang T, Akhvlediani T, ISARIC Working Group 3, ISARIC Council, Hayden FG, **Marshall JC**, Webb S, Angus DC, Shindo N, van der Werf S, Openshaw PJ, Farrar J, Carson G, Baillie JK. Open source clinical science for emerging infections. *Lancet Infect Dis*. 2014 Jan 1. 14(1):8-9. **Coauthor or Collaborator**.

### **Conference Publication**

Gupta A, **Marshall JC**. Up Regulation of Heat-Shock Protein 90 (HSP90) in Human Septic Patients and LPS Stimulated Healthy Donors Significantly Impairs Neutrophil Apoptosis. *SHOCK*. 2015 Jun;Volume 43 - Supplement 1-6S:122-123. **Co-Principal Author**.

### **Journal Articles, Multicenter Study, Randomized Controlled Trial**

Lacroix J, Hébert PC, Fergusson DA, Tinmouth A, Cook DJ, **Marshall JC**, Clayton L, McIntyre L, Callum J, Turgeon AF, Blajchman MA, Walsh TS, Stanworth SJ, Campbell H, Capellier G, Tiberghien P, Bardiaux L, van de Watering L, van der Meer NJ, Sabri E, Vo D, ABLE Investigators, Canadian Critical Care Trials Group. Age of transfused blood in critically ill adults. *N Engl J Med*. 2015 Apr 9;372(15):1410-8. **Coauthor or Collaborator**.

### **Book Chapters**

Brotfain E, Klein M, **Marshall JC**. Supraventricular dysrhythmias in the critically ill: Diagnostic and prognostic implications. *Annual Update in Intensive Care and Emergency Medicine 2014*. Springer, Switzerland. Editor: Vincent JL. **Senior Responsible Author**.

**Marshall JC**. Acute Pancreatitis. *Critical Care Medicine: Principles of Diagnosis and Management in the Adult*. 2014. 4<sup>th</sup> Edition: 1353-1362. Elsevier Saunders. Philadelphia, United States. Editors: Parrillo JE, Dellinger RP. **Principal Author**.

## Peer Reviewed Fundings

- 2015 Jul - 2016 Jun **Co-Investigator.** Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE): A Randomized Controlled Clinical Trial. Canadian Institutes of Health Research. Operating Grant. PI: Daneman, Nick & Fowler, Robert A. Collaborator(s): Bagshaw, Sean M; Coburn, Bryan A; Cook, Deborah J; Dodek, Peter M; Hall, Richard I; Kumar, Anand; Lamontagne, Francois; Lauzier, François; Marshall, John C; Martin, Claudio M; McIntyre, Lauralyn A; Muscedere, John; Reynolds, Steven C; Stelfox, Henry T. \$100,000.00 CAD. [Clinical Trials]
- 2015 Jul - 2016 Jun **Co-Investigator.** Crystalloid FLUID Choices for Resuscitation of Hospitalized Patients: A Pragmatic Cluster Cross Over Pilot Trial. Canadian Institutes of Health Research (CIHR). Operating Grant. PI: McIntyre, Lauralyn Ann and Taljaard, Monica. Collaborator(s): Christian M, Fergusson D, Forster A, Fox-Robichaud A, Graham I, Hawken S, Marshall J, Martin C, Maybee A, Mccartney C, Muscedere J, Saginur R, Seely A, Stiell I, Thavor K. \$135,935.00 CAD. [Clinical Trials]
- 2015 Jun - 2016 Jun **Co-Investigator.** Establishing Feasibility & Safety of Providing Critical Care for Patients with Ebola through design of a simulated Ebola Treatment Centre. Canadian Institutes of Health Care Research. Operating Grant - Innovative Ebola Research Grants. PI: Fowler, RA and Adhikari, NK. Collaborator(s): Bah EI, Chan A, Christian MD, Hajek J, Hall TN, Lamah MC, Lamontagne F, Marshall JC, Mishra S, Murthy S, Piquette D, Simor E, Vanderschuren A. \$249,973.00 CAD. [Grants]
- 2015 Apr - 2016 Mar **Principal Investigator.** International Forum for Acute Care Trialists. Canadian Institutes of Health Research (CIHR). Institute of Circulatory and Respiratory Health. \$40,000.00 CAD. [Planning Meeting Grant 2015-16]
- 2015 Feb – 2017 Feb **Principal Investigator.** Cellular and molecular mechanisms of neutrophil survival in sepsis and trauma: the role of PBEF/Nampt/Visfatin. The Physicians' Services Incorporated Foundation. \$169,500.00 CAD. [Grants]
- 2014 Oct – 2019 Aug **Co-Investigator.** Temperature, Heart and Respiratory Rate Investigation with Variability Evaluation and Serum Biomarkers (THRRIVES) to provide early and specific warning of infection. The Ottawa Hospital Academic Medical Organization. PI: Seely A. [Clinical Trials]
- 2014 Sept – 2019 Aug **Co-Principal Investigator.** The Canadian Critical Care Trials Group. Canadian Institutes of Health Research (CIHR). Co-PIs: Hebert P, Cook D, Burns K, et al. \$1,500,000.00 CAD. [Grants]

- 2014 - 2015      **Collaborator.** 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). PI: McLeod R. Collaborators: Aarts MA, Marshall JC, McCluskey S, Morris A, Okrainec A, Rotstein O, Stiel I. \$489,000.00 CAD. [Clinical Trials]
- 2013 Mar – 2015 Mar      **Co-Investigator.** PROSPECT: Probiotics: Prevention of Severe Pneumonia and Endotracheal Colonization Trial (PROSPECT): A Pilot Trial. Canadian Institutes of Health Research. PI: Cook DJ. \$223,231.00 CAD. [Grants]
- 2012 – 2014      **Principal Investigator.** Cellular and Molecular Mechanisms of Prolonged Neutrophil-Mediated Inflammation in Trauma and Sepsis: The Role of PBEF/Nampt/Visfatin. The Physicians' Incorporated Foundation. \$169,500.00 CAD. [Clinical Trials]
- 2011 Nov – 2014 Jun      **Co-Investigator.** Animals, Humans, and the Continuity of Evidence: A Study of Clinical Translation. Canadian Institutes of Health Research (CIHR). PIs: Fergusson DA, Kimmelman, J. Collaborators: Grimshaw JA, Hackam DG, Knoll G, London AJ, Moher D, Ramsay TO, Sampson M, Stewart DJ, Weijer CE. \$273,952.00 CAD. [Grants]
- 2011 Nov – 2014 Jun      **Co-Investigator.** Sepsis Outcomes National Registry to Improve Survival. Canadian Institutes of Health Research (CIHR). PI: Boyd J. Collaborators: Doig C, Hancock R, Kubes P, Russell J. \$200,000.00 CAD. [Grants]
- 2012 -2014      **Co-Investigator.** Cellular Immunotherapy for Septic Shock (CISS): A Phase I Trial. Canadian Institutes of Health Research (CIHR). PI: McIntyre LA. Collaborators: Courtman D, Fergusson D, Granton J, Lalu T, Manoj M, Mei S, Stewart D, Walley K, Winston B. \$366,811.00 CAD [Grants]
- 2009 Jul – 2014 Jun      **Principal Investigator.** Characterization of a novel, caspase-8 dependent survival pathway in inflammatory neutrophils. Canadian Institutes of Health Research (CIHR). \$501,135.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Nov      **Invited Speaker.** 1. Surgical source control and the difficult abdomen. 2. Deresuscitation of the critically ill patient. 2nd ICON Conference, Cebu, Manila Philippines, November 12-13, 2015.

- 2015 Nov **Invited Speaker.** Capacity building, collaboration, and networking: The critical care perspective. International Severe Acute Respiratory and Emerging Infection Consortium Meeting, London. UK November 30 – December 1, 2015.
- 2015 Sep **Invited Speaker.** 1. The PIRO Model: Predisposition, Insult, Response, Organ Dysfunction. 2. Targets for vasopressor therapy in septic shock. 3. Inflammation, coagulopathy, and the pathogenesis of the Multiple Organ Dysfunction Syndrome. 4th Simposio Nacional de Sepsis, Cali, Colombia, September 10-11, 2015.
- 2015 Sep **Invited Speaker.** 1. New concepts, new models: Critical care 2015. 2. Endotoxin in critical illness: Significance and therapeutic implications. 3. Testing new treatments in complex diseases: EUPHRATES and beyond. First Endotoxemia Congress, Gurgaon, India, September 26, 2015.
- 2015 Aug **Invited Speaker.** 1. Critical illness is an iatrogenic disorder. 2. Global collaboration for sepsis research. 3. Guidelines are the future of sepsis management – Con. 4. Global collaboration for acute care research. 5. Report of the WFSICCM Task Force: What is an ICU? 12th World Congress of Intensive and Critical Care Medicine, Seoul, Korea, August 29 – September 1, 2015.
- 2015 Jun **Invited Speaker.** 1. Care bundles: A methodologic critique. 2. What happened to the gut as motor of MOF? 50th Spanish National Critical Care Congress, Sociedad Espanola de Medicina Intensiva Critica y Unidades Coronarias. San Sebastián, Spain, June 14-17, 2015. Spain.
- 2015 May **Invited Speaker.** Pandemic research collaboration: Priorities and challenges. Global Research Collaboration for Infectious Disease Preparedness Meeting. May 4-5 2015. Cape Town, South Africa.
- 2015 May **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. 13th Simposio Internacional Emergencias Médicas y Paciente Crítico, May 14-16, 2015. Santiago, Chile.
- 2015 May **Invited Speaker.** Primum non nocere. American Thoracic Society Conference 2015, May 18, 2015. Denver, Colorado, United States.
- 2015 Apr **Invited Speaker.** From inflammation to the Multiple Organ Dysfunction Syndrome. 35th Surgical Infection Society Meeting, April 16-18, 2015. Westlake Village, California, United States.
- 2015 Apr **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. 12th Critical Care Symposium, April 23-24, 2015. Manchester, United Kingdom.

- 2015 Mar **Invited Speaker.** Are we ready for the next pandemic? Roundtable Conference on Reducing the Global Burden of Sepsis, Brussels, Belgium. March 14 – 16, 2015. Brussels, Belgium.
- 2015 Mar **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. 35th International Symposium on Intensive Care and Emergency Medicine. March 17 – 20, 2015. Brussels, Belgium.
- 2015 Feb **Invited Lecturer.** Lessons from sepsis: Understanding heterogeneity. AKI Outcomes: Overcoming barriers in AKI Research, NIH, Bethesda MD, February 11,12, 2015. Bethesda, Maryland, United States.
- 2015 Jan **Invited Speaker.** Working Group on Rethinking Endpoints for Trials in the Critically Ill. Paris, France. Presenter(s): 1. Mortality as an outcome measure for sepsis trials. 2. Matching the trial to the disease. January 12-13, 2015.
- 2014 Oct 23 **Invited Speaker.** Fluid replacement in septic shock. National Congress of the Italian Society of Anaesthesiology and Intensive Care Medicine. Venice, Treviso, Italy.
- 2014 Oct 13 **Invited Speaker.** Immune cells in sepsis. 14th Acute Dialysis Quality Initiative. Bogota, Bogota, Colombia.
- 2014 Sep 18 **Invited Speaker.** The PIRO concept; Opportunities for global collaboration in sepsis research. SepsEast; 2nd Central and Eastern European Sepsis Forum. Budapest, Hungary.
- 2014 Aug 15 **Invited Speaker.** What is evidence-based medicine?; When are randomized clinical trials unnecessary? 3rd Neurocritical Care Research Conference. Houston, Texas, United States.
- 2014 May 15-17 **Invited Speaker.** Sepsis 2014; Source control in complex infections; Scores: What is new? 12 Simposio Internazionale de Emergencias Médicas y Paciente Crítico. Santiago, Chile.
- 2014 May 14 **Invited Speaker.** International Forum for Acute Care Trialists (InFACT) - Collaborative global acute care research. Latinoamerican Clinical Trial Investigative Network (LACTIN) 2nd Annual Meeting. Casa Blanca, Chile.
- 2014 May 11-13 **Invited Speaker.** Building consensus on outcome measures for acute illness. 2. Surgical checklists: Do they Work? 3. Building global collaboration in critical care. Rapid Response Systems: Driving Patient Safety, 10th Annual Meeting. Miami, Florida, United States.

- 2014 May 1-3 **Invited Speaker.** The multiple organ dysfunction syndrome. Surgical Infection Society 34th Annual Meeting. Baltimore, Maryland, United States.
- 2014 Apr 21 **Invited Speaker.** InFACT: Global collaboration in acute care research; Management of severe acute pancreatitis. Xiangya School of Medicine. Changsha, China.
- 2014 Apr 18-20 **Invited Speaker.** Sepsis trials: Where have we gone wrong? Host-microbial interactions in critical illness. Shandong Provincial Critical Care Medicine Conference. Jinan, China.
- 2014 Mar 15-17 **Invited Speaker.** Building global collaboration in acute care research. Roundtable Meeting on Evidence in Critical Care Medicine. Brussels, Belgium.
- 2014 Mar 18-21 **Invited Speaker.** Pandemics: How should the critical care community respond?; Apoptosis as a mechanism of critical illness; Big international research consortia; PBEF/Nampt/Visfatin; Core outcome measures for critical care research; The microbial flora of critical illness: What does it tell us?; Abdominal trauma; Acute pancreatitis: Principles of management. 34th International Symposium of Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2014 Feb 12 **Invited Speaker.** Resuscitation and deresuscitation of the critically ill patient. University of Washington Department of Anesthesia. Seattle, Washington, United States.
- 2014 Jan 24 **Invited Speaker.** Deresuscitation of the critically ill patient; Intensive care in 2014. Critical Care Reviews. Galgorm, Ireland.
- 2014 Jan 13-14 **Invited Speaker.** Sepsis: A history of the concept; Compartmentalization of inflammation. San Francisco, California, United States.
- 2014 Jan 12 **Invited Speaker.** Empiric therapy and source control in septic shock. Critical Care Congress, Society of Critical Care Medicine. San Francisco, California, United States.
- Provincial**
- 2015 May **Invited Speaker.** Outcome measures: A critical care perspective. 5th COMET (Core Outcome Measures in Effectiveness Trials) Meeting, May 20-21, 2015. Calgary, Alberta, Canada.
- 2014 Jun 16 **Invited Speaker.** Building a career in academic medicine. Canadian Critical Care Trials Group Residents' Research Day. Montreal, Quebec, Canada.



## Local

- 2015 Oct **Invited Speaker.** Staging sepsis: How far have we come? Critical Care Canada Forum, Toronto, Canada, October 26, 2015.
- 2014 May 31 **Invited Speaker.** Sepsis 2014: New guidelines, old challenges. Canadian Perioperative Anesthesia and Medicine Meeting. Toronto, Ontario, Canada.
- 2014 Apr 28 **Invited Speaker.** A passion for the art of science. Resuscitation in Motion Symposium. Toronto, Ontario, Canada.

## Honours and Awards

- 2014 Academia Colombiana de Medicina Crítica. Honorary Member.

**Dr. David Mazer (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Wald R, McArthur E, Adhikari NK, Bagshaw SM, Burns KE, Garg AX, Harel Z, Kitchlu A, **Mazer CD**, Nash DM, Scales DC, Silver SA, Ray JG, Friedrich JO. Changing Incidence and Outcomes Following Dialysis-Requiring Acute Kidney Injury Among Critically Ill Adults: A Population-Based Cohort Study. *Am J Kidney Dis*. 2015 Jun;65(6):870-7. **Coauthor or Collaborator**.

Karkouti K, Grocott HP, Hall R, Jessen ME, Kruger C, Lerner AB, MacAdams C, **Mazer CD**, de Medicis É, Myles P, Ralley F, Rheault MR, Rochon A, Slaughter MS, Sternlicht A, Syed S, Waters T. Interrelationship of preoperative anemia, intraoperative anemia, and red blood cell transfusion as potentially modifiable risk factors for acute kidney injury in cardiac surgery: a historical multicentre cohort study. *Can J Anaesth*. 2015 Apr;62(4):377-384. **Coauthor or Collaborator**.

Wald R, Adhikari NKJ, Smith OM, Weir MA, Pope K, Cohen A, Thorpe K, McIntyre L, Lamontagne F, Soth M, Herridge M, Lapinsky S, Clark E, Garg AX, Hiremath S, Klein D, **Mazer CD**, Richardson RMA, Wilcox ME, Friedrich JO, Burns KEA, Bagshaw SM. Comparison of standard and accelerated initiation of renal replacement therapy in acute kidney injury (STARRT-AKI). *Kidney International*. 2015. In Press. **Coauthor or Collaborator**.

Lau R, Wald R, Sladen R, **Mazer CD**. Acute kidney injury in cardiac surgery and cardiac intensive care. *Seminars in Cardiothoracic and Vascular Anesthesia*. *Seminars in Cardiothoracic and Vascular Anesthesia*. 2015. In Press. **Senior Responsible Author**.

Deb S, Austin PC, Tu JV, Ko DT, **Mazer CD**, Kiss A, Fremes SE. A review of propensity score methods and their use in cardiovascular research. *Cdn J of Cardiology*. 2015. In Press. **Coauthor or Collaborator**.

Kim N, Dai SY, Pang V, **Mazer CD**. Vasopressinase activity: a potential early biomarker for detecting cardiopulmonary bypass-associated acute injury? *Thoracic and Cardiovascular Surgeon*. 2015. In Press. **Senior Responsible Author**.

Ha A, Verma S, **Mazer CD**, Yanagawa B, Verma A. A clinician guide to perioperative atrial fibrillation. *Circulation*. 2015. **Coauthor or Collaborator**.

Lecker I, Whissell PD, Wang D-S, Avramescu S, **Mazer CD**, Order BA. Tranexamic acid-associated seizures: causes and treatment. *Annals of Neurology*. 2015. **Coauthor or Collaborator**.

Hébert PC, Fergusson DA, Hutton B, **Mazer CD**, Fremes S, Blajchman M, MacAdams C, Wells G, Robblee J, Bussières J, Teoh K; for the BART Investigators. Changing Incidence and Outcomes Following Dialysis-Requiring Acute Kidney Injury Among Critically Ill Adults: A Population-Based Cohort Study. *CMAJ*. 2014 Dec. 186(18):1379-86. **Coauthor or Collaborator**.

Curley GF, Shehata N, **Mazer CD**, Hare GM, Friedrich JO. Transfusion Triggers for Guiding RBC Transfusion for Cardiovascular Surgery: A Systematic Review and Meta-Analysis. Crit Care Med. 2014 Dec. 42(12):2611-24. **Coauthor or Collaborator**.

Karkouti K, Arellano R, Aye T, Dupuis JY, Kent B, Lee TW, Lin Y, Ralley F, MacAdams C, **Mazer CD**, Muirhead B, Rheault MR, Rochon A, Syed S, Waters T, Wong B. Off-label use of recombinant activated factor VII in surgical and non-surgical patients at 16 Canadian hospitals from 2007 to 2010 (Canadian Registry Report). Can J Anaesth. 2014 Aug. 61(8):725-35. **Coauthor or Collaborator**.

Tsui AK, Marsden PA, **Mazer CD**, Sled JG, Lee KM, Henkelman RM, Cahill LS, Zhou YQ, Chan N, Liu E, Hare GM. Differential HIF and NOS Responses to Acute Anemia: Defining Organ Specific Hemoglobin Thresholds for Tissue Hypoxia. Am J Physiol Regul Integr Comp Physiol. 2014 Jul. 307(1): R13-25. **Coauthor or Collaborator**.

Garavaglia MM, Das S, Cusimano MD, Crescini C, **Mazer CD**, Hare GM, Rigamonti A. Anesthetic Approach to High-Risk Patients and Prolonged Awake Craniotomy Using Dexmedetomidine and Scalp Block. J Neurosurg Anesthesiol. 2014 Jul. 26(3):226-33. **Coauthor or Collaborator**.

Trop S, Marshall JC, **Mazer CD**, Gupta M, Dumont JD, Bourdeau A, Verma S. Perioperative cardiovascular system failure in South Asians undergoing cardiopulmonary bypass is associated with prolonged inflammation and increased Toll-like receptor signaling in inflammatory monocytes. J Surg Res. 2014 Mar. 187(1):43-52. **Coauthor or Collaborator**.

**Mazer CD**. Blood conservation in cardiac surgery: guidelines and controversies. Transf Apher Sci. 2014 Feb. 50(1):20-5. **Principal Author**.

Wald R, McArthur E, Adhikari NK, Bagshaw SM, Burns KE, Garg AX, Harel Z, Kitchlu A, Mazer CD, Nash DM, Scales DC, Silver SA, Ray JG, Friedrich JO. Changing Incidence and Outcomes Following Dialysis-Requiring Acute Kidney Injury Among Critically Ill Adults: A Population-Based Cohort Study. Am J Kidney Dis. 2014.

## Book Chapters

McAuliffe NA, Hanumanthaiah D, **Mazer CD**. Pharmacologic prophylaxis for post-cardiopulmonary bypass bleeding. In: G. Gravlee, editor(s). Cardiopulmonary Bypass and Mechanical Circulator Support. 4e. (India); 2015. In Press. **Senior Responsible Author**.

## Peer-Reviewed Fundings

2015 Jan - 2018 Dec **Co-Principal Investigator**. Transfusion Triggers in Cardiac Surgery Australia Trial (TRICS III). NHMRC (National Health and Medical Research Council of Australia). PI: Royce, A. Collaborator(s): Scott D, Fraser J, Shehata N. 1,379,436.00 AUD. [Clinical Trials]

2014 Dec – 2015 Dec **Co-Investigator**. STandard vs Acclerated initiation of Renal Replacement therapy in Acute Kidney Injury (STARRT-AKI). Canadian Institutes of Health Research (CIHR). \$100,000.00 CAD. PI: Wald, R. [Grants]

- 2014 Jul - 2019 Jul **Collaborator.** Left Atrial Appendage occlusion Study III (LAAOS III). Canadian Institutes of Health Research (CIHR). PI: Dr Richard Whitlock. \$70,000.00 CAD. [Clinical Trials]
- 2014 Jul - 2019 Jun **Co-Investigator.** STandard versus Accelerated initiation of Renal Replacement therapy in Acute Kidney Injury (STARRT-AKI). CIHR Operating Grant. PI: Wald, Ron. \$1,177,472.00 CAD. [Clinical Trials]
- 2014 Jul – 2018 Jun **Co-Investigator.** STandard vs Acclerated initiation of Renal Replacement therapy in Acute Kidney Injury (STARRT-AKI). Canadian Institutes of Health Research (CIHR) and Industry Partnered. \$220,996.00 CAD. [Grants]
- 2013 Oct – 2018 Mar **Principal Investigator.** Transfusion requirement in cardiac surgery III (TRICS III). Canadian Institutes of Health Research (CIHR). \$3,323,110.00 CAD. [Grants]
- 2013 Jul – 2015 Jun **Principal Investigator.** Reducing adverse outcomes in cardiac surgery related to tissue hypoxia. Department of Anesthesia Merit Award Research Competition University of Toronto. \$80,000.00 CAD. [Grants]
- 2012 Jul – 2016 Jun **Co-Investigator.** The METS (Measurement of Exercise Tolerance before Surgery) Study: An international multicentre prospective cohort study of cardiopulmonary exercise testing for improving preoperative risk stratification for major non-cardiac surgery. Canadian Institutes of Health Research (CIHR). \$987,066.00 CAD. PI: Wijesundera, Duminda. [Grants]
- 2011 Jul – 2014 Jun **Co-Investigator.** Transfusion requirements in cardiac surgery (TRICS II). Canadian Institutes of Health Research (CIHR). \$444,165.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Aug 6 **Invited Speaker.** Update on blood conservation for cardiac surgery. China Heart Congress. Beijing, China.
- 2015 Mar 26 **Invited Speaker.** The BART Study: historical and clinical perspectives. Society for Cardiothoracic Surgery in Great Britain and Ireland and Association of Cardiothoracic Anaesthetists. Manchester, United Kingdom.

- 2015 Mar 25 **Invited Speaker.** Prevention of coagulopathy: Update on tranexamic acid and aprotinin therapy. Society for Cardiothoracic Surgery in Great Britain and Ireland and Association of Cardiothoracic Anaesthetists. Manchester, United Kingdom.
- 2015 Mar 25 **Invited Speaker.** Non-red cell treatment and adjuncts (plasma/cryo/PCC). Society for Cardiothoracic Surgery in Great Britain and Ireland and Association of Cardiothoracic Anaesthetists. Manchester, United Kingdom.
- 2014 Nov **Invited Speaker.** TRICS III Prospective Randomized Controlled Trial of a Restrictive or Liberal Blood Transfusion Protocol. Australian and New Zealand Society of Cardiac and Thoracic Surgeons (ANZSCTS). New Zealand.
- 2014 Oct 11-15 **Invited Speaker.** What are the alternatives to FFP?; Update on strategies for blood conservation and hemostasis in cardiac surgery; Factor Concentrates – what is their place in perioperative bleeding?; SCA and Society of Thoracic Surgeons Collaborative Guidelines. ASA Annual meeting. Louisiana, New Orleans, United States.
- 2014 Sept 17 **Invited Speaker.** Haemostasis and major bleeding in cardiac surgery. International Congress on Cardiovascular Anesthesia (ICCVA) and European Association of Cardiothoracic Anesthesiologists (EACTA) meeting. Florence, Italy.
- 2014 May 1 **Invited Speaker.** Transfusion in cardiac surgery. Prince Charles Hospital. Brisbane, Queensland, Australia.
- 2014 Apr 30 **Invited Speaker.** Transfusion in cardiac surgery. Royal North Shore Hospital. Sydney, New South Wales, Australia.
- 2014 Apr 28 **Invited Speaker.** Transfusion in cardiac surgery. University of Melbourne, Royal Melbourne Hospital. Melbourne, Victoria, Australia.
- 2014 Mar 30 – Apr1 **Invited Speaker.** What transfusion trigger is indicated?; The role of fibrinogen in reducing transfusion. SCA Annual meeting. New Orleans, Louisiana, United States.
- 2014 Mar 30 **Moderator.** Transfusion medicine: Time for a shift. SCA Annual meeting. New Orleans, Louisiana, United States.
- 2014 Mar 27 **Invited Speaker.** Transfusion requirements in cardiac surgery. Steroids in cardiac surgery (SIRS) study Investigators' meeting. Washington, United States.

## Provincial

- 2014 Oct 8 **Invited Speaker.** Issues in perioperative bleeding, transfusion and hemostasis; Perioperative blood management. University of Dalhousie Department of Anesthesia. Halifax, Nova Scotia, Canada.
- 2014 April 26 **Invited Speaker.** Balancing risks: perioperative anemia and transfusion. Blood and Beyond: Issues in perioperative medicine. University of Dalhousie Department of Anesthesia. Halifax, Nova Scotia, Canada.
- 2014 April 24 **Invited Speaker.** Transfusion requirements in cardiac surgery (TRICS III). Montreal Heart Institute. Montreal, Quebec, Canada.
- 2014 Feb 11 **Invited Speaker.** Transfusion and blood conservation in cardiac surgery. Laval University, Institut Universitaire de Cardiologie et de Pneumologie de Québec. Montreal, Quebec, Canada.

## National

- 2015 Jan 21 **Invited Lecturer.** Issues in perioperative bleeding, transfusion and hemostasis. Department of Anesthesia, Queens University. Kingston, Ontario, Canada.
- 2015 Jan 21 **Invited Lecturer.** Cardiogenic shock IABP antiplatelet agents. Department of Anesthesia, Queens University. Kingston, Ontario, Canada.
- 2015 Jan 21 **Invited Lecturer.** Transfusion Requirements in Cardiac Surgery (TRICS-III). Department of Anesthesia, Queens University. Kingston, Ontario, Canada.
- 2014 Mar 19 **Invited Speaker.** History, current status, and future prospects of hemostatic agents in cardiac surgery; Transfusion in cardiac surgery. Western University, Department of Anesthesia. London, Ontario, Canada.

## Local

- 2014 May 12-13 **Invited Speaker.** Perioperative hemostasis and point-of-care testing; Antifibrinolytics and other hemostatic drugs; Can perioperative blood management improve patient's safety? Canadian Severe Bleeding Management meeting. Toronto, Ontario, Canada.
- 2014 Feb 5 **Invited Speaker.** How science gets it wrong: Issues in evaluating science and scientists. National Judicial Institute Science Seminar. Toronto, Ontario, Canada.
- 2014 Feb 4 **Invited Speaker.** Detection of research fraud: What is the role of the REB? Sunnybrook Hospital Research Ethics Board. Toronto, Ontario, Canada.

**Dr. Antoine Pronovost (St. Michael's Hospital)**

**Invited Lectures and Presentations**

**Local**

2014 Oct 29            **Facilitator.** Leadership Masterclass Case Study: Making a business case for a local rapid response team. Critical Care Canada Forum (CCCF). Toronto, Ontario, Canada.

2014 Oct 29            **Speaker.** Quality and Cost in Critical Care: Can quality really be free? Critical Care Canada Forum (CCCF). Toronto, Ontario, Canada.

**Dr. Andrea Rigamonti (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Article**

Garavaglia MM, Das S, Cusimano MD, Crescini C, Mazer CD, Hare GM, **Rigamonti A.** Anesthetic Approach to High-Risk Patients and Prolonged Awake Craniotomy Using Dexmedetomidine and Scalp Block. J Neurosurg Anesthesiol. 2014 Jul. 26(3):226-33. **Senior Responsible Author.**

**Peer-Reviewed Fundings**

- 2012 - present                      **Co-Investigator.** Observational Study of Cerebral Tissue Oxygen Saturation During Blood Transfusion in Severe Traumatic Brain Injured Patients. Physicians Services Incorporated Foundation (The) (PSI). \$40,000.00 CAD. [Grants]
- 2010 – present                      **Co-Investigator, Site Principal Investigator.** Early determination of neurological prognosis in ICU patients with severe traumatic brain injury: TBI Prognosis Pilot Study. Canadian Institutes of Health Research (CIHR). \$1,400,000 CAD. [Grants]

**Invited Lectures and Presentations**

**International**

2014 Nov 21                      **Invited Speaker.** Pain Management after craniotomy. Department of Anesthesiology and Critical Care, Sapienza. University of Rome, Rome, Italy.

**National**

2015 Jun 21                      **Invited Lecturer.** Conscious Sedation for Awake Craniotomy: Dexmedetomidine vs Propofol. Canadian Anesthesiologists' Society Annual Meeting. Ottawa, Ontario, Canada. NeuroAnesthesia Section Breakfast.

**Local**

2014 Jun 23-24                      **Invited Speaker.** Transcranial Doppler in the Peri-operative setting. Lecture and Hands-on Workshop. Annual International Symposium of Ultrasound for Regional Anesthesia, Pain Medicine and Peri-operative Application (ISURA). Toronto, Ontario, Canada.



**Dr. Sandro Rizoli (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journals**

Zakrison TL; Rosenbloom B; McFarlan A; Jovicic A; Soklaridis S; Allen C; Schulman C; Namias N; **Rizoli S**. Lost information during the handover of critically injured trauma patients: a mixed-methods study. *BMJ Qual Saf*. 2015 Nov 6; **Senior Responsible Author**.

Byrne JP; Xiong W; Gomez D; Mason S; Karanicolas P; **Rizoli S**; Tien H; Nathens AB. Redefining "dead on arrival": Identifying the unsalvageable patient for the purpose of performance improvement. *J Trauma Acute Care Surg*. 2015 Nov;79(5):850-7. **Co-Principal Author**.

Rezende-Neto JB; Angarita FA; **Rizoli SB**; Rotstein OD. Modified triple-layer peritoneal-aponeurotic transposition: A new strategy to close the "open abdomen". *J Trauma Acute Care Surg*. 2015 Oct;79(4):694-7. **Co-Principal Author**.

Peng HT; Grodecki R; **Rizoli S**; Shek PN. A comparative study of tissue factor and kaolin on blood coagulation assays using rotational thromboelastometry and thromboelastography. *Blood Coagul Fibrinolysis*. 2015 Sep;Epub ahead of print. **Co-Principal Author**.

Coccolini F; Montori G; Catena F; Di Saverio S; Biffi W; Moore EE; Peitzman AB; **Rizoli S**; Tugnoli G; Sartelli M; Manfredi R; Ansaloni L. Liver trauma: WSES position paper. *World J Emerg Surg*. 2015 Aug 25;10(39). **Co-Principal Author**.

Delano MJ; **Rizoli SB**; Rhind SG; Cuschieri J; Junger W; Baker AJ; Dubick MA; Hoyt DB; Bulger EM. Pre-Hospital Resuscitation of Traumatic Hemorrhagic Shock with Hypertonic Solutions Worsen Hypo-Coagulation and Hyper-Fibrinolysis. *Shock*. 2015 Jul;44(1):25-31. **Co-Principal Author**.

Novak DJ; Bai Y; Cooke RK; Marques MB; Fontaine MJ; Gottschall JL; Carey PM; Scanlan RM; Fiebig EW; Shulman IA; Nelson JM; Flax S; Duncan V; Daniel-Johnson JA; Callum J; Holcomb JB; Fox EE; Baraniuk S; Tilley BC; Schreiber MA; Inaba K; **Rizoli S**; Podbielski J; Cotton BA; Hess JR on behalf PROPPR Study Group. Making thawed universal donor plasma available rapidly for massively bleeding trauma patients: the experience of the PROPPR trial centers. *J Trauma Acute Care Surg*. 2015 Jun 30;6(1331-9). **Co-Principal Author**.

Inaba K; **Rizoli S**; Veigas PV; Callum J; Davenport R; Hess J; Maegele M and the Viscoelastic Testing in Trauma Consensus Panel. Consensus conference on viscoelastic test-based transfusion guidelines for early trauma resuscitation: report of the panel. *Journal of Trauma and Acute Care Surgery*. 2015 Jun;78(6):1220-1229. **Co-Principal Author**.

Di Battista AP; Buonora JE; Rhind SG; Hutchison MG; Baker AJ; **Rizoli SB**; Diaz-Arrastia R; Mueller GP. Blood Biomarkers in Moderate-To-Severe Traumatic Injury: Potential Utility of a Multi-Marker Approach in Characterizing Outcome. *Front Neurol*. 2015 May;6:110. **Co-Principal Author**.

Idris AH; Guffey D; Pepe PE; Brown SP; Brooks SC; Callaway CW; Christenson J; Davis DP; Daya MR; Gray R; Kudenchuk PJ; Larsen J; Lin S; Menegazzi JJ; Sheehan K; Sopko G; Stiell I; Nichol G; Aufderheide TP; Resuscitation Outcomes Consortium Investigators. Chest compression rates and survival following out-of-hospital cardiac arrest. *Crit Care Med*. 2015 Apr;43(4):840-8.

Carreiro P, Rezende Neto JB, Lisboa TA, Ribeiro DD, Camargo ERS, Andrade M, **Rizoli S**, Melo JR. Coagulation Factor XIII and Desmopressin Improve Hemostasis in Uncontrolled Bleeding. *Acta Cirurgica Brasileira*. 2015 Mar;30(3):170-77. **Co-Principal Author**.

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Sobrian-Couroux S, McFarlan A, **Rizoli S**. Assessing the time to CT scan and outcomes in moderate to severe traumatic brain injury. *Canadian Journal of Surgeon*. 2014. 57(3): S53. **Senior Principal Author**.

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da Luz LT, Nascimento B, Shankarakutty AK, **Rizoli S**, Adhikari NKJ. Effect of thromboelastography (TEG) and rotational thromboelastometry (ROTEM) on diagnosis of coagulopathy transfusion guidance and mortality in trauma: descriptive systematic review. *Critical Care*. 2014 Sep 27. 18(5):518. **Coauthor or Collaborator**.

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Novak DJ, Bai Y, Cooke RK, Marques MB, Fontaine MJ, Gottschall JL, Carey PM, Scanlan RM, Fiebig EW, Shulman IA, Nelson JM, Flax S, Duncan V, Daniel-Johnson JA, Callum J, Holcomb JB, Fox EE, Baraniuk S, Tilley BC, Schreiber MA, Inaba K, **Rizoli S**, Podbielski J, Cotton BA, Hess JR on behalf PROPPR Study Group. Making thawed universal donor plasma available rapidly for massively bleeding trauma patients: the experience of the PROPPR trial centers. Transfusion. 2014. **Coauthor or Collaborator.**

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**Rizoli S**, Min A, Sanchez AP, Shek P, Grodecki R, Veigas P, Peng H. In trauma, conventional ROTEM® and TEG® results are not interchangeable but are similar in clinical applicability. Journal of Military Medicine. 2014. **Principal Author.**

Lee WJ, Fung SF, Al Babbain I, Nascimento Jr. B, Pinto R, Callum JL, **Rizoli S**. Undertransfusion and overtransfusion of red blood cells in trauma patients: Incidence, risk factors and associated outcomes. Critical Care. 2014. **Senior Principal Author.**

### **Book Chapter**

Ferri BF, **Rizoli SB**. Laboratory Assessment of Shock. In: Whestphal G and Silva E - Editora Atheneu, 4th Edition, editor(s). Conduitas no Paciente Grave. (Brazil); 2015. **Senior Responsible Author.**

### **Newspaper Article**

Blood clotting technology ROTEM at St.Micheal's Hospital. Hospital News (Vertical Media). 2015 Sep.

### **Peer Reviewed Fundings**

- |             |                                                                                                                                                                                                                                                                                             |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 - 2016 | <b>Principal Investigator.</b> Using rotational thromboelastometry and simplified guidelines to reduce inappropriate transfusion of blood and blood products to trauma patients at St. Michael's Hospital. St. Michael's Hospital. AFP Innovation Funds. \$29,200.00 CAD. [Clinical Trials] |
| 2012 – 2016 | <b>Principal Investigator.</b> Coagulopathy in Trauma: A Comparative Study. Defense Research and Development Canada. [Contracts]                                                                                                                                                            |
| 2012 – 2016 | <b>Principal Site Investigator.</b> Prospective randomized optimal platelet and plasma ratio trial. CIHR and Defense Research and Development Canada. Co-PI: Holcomb, J. [Clinical Trials]                                                                                                  |

- 2009 Sept – present      **Co-Investigator.** Age of blood evaluation (ABLE) trial in the resuscitation of critically ill patients. Canadian Institutes of Health Research (CIHR). PI: Lacroix, J. Collaborators: Callum J, Fowler R. [Clinical Trials]
- 2007 Jul – present      **Co-Principal Investigator.** Hypertonic modulation in Inflammation and Coagulation Following Injury. Defense Research and Development Canada. National Institutes of Health Defense Research and Development Canada. Collaborators: Bulger E, Wolfgang Y, Rhind S. [Grants]
- 2004 Sept – 2015 Dec      **Co-Investigator.** Resuscitation outcomes consortium - from bench to bedside to curbside . Funded National Institutes of Health . Canadian Institutes of Health Research (CIHR). Heart and Stroke of Canada. PI: Slutsky, A. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Nov 14      **Lecturer.** (1) North vs. South debate. (2) How to resuscitate injured patients taking the novel oral anticoagulants. (3) Blood transfusions should be tailored to the patient in front of you. XXVIII Panamerican Clinical Congress of Trauma. Santa Cruz, Bolivia, Plurinational State Of.
- 2015 Aug 1      **Lecturer.** Focus intra-operative bleeding: pitfalls. II International Symposium on the Care for the Injured Patient. Sao Paulo, Brazil.
- 2015 Aug 1      **Lecturer.** Coagulopathy prevention: how to achieve it? II International Symposium on the Care for the Injured Patient. Sao Paulo, Brazil.
- 2015 Jun 28      **Presenter.** Characterization of Peripheral Blood Endothelial Activation-Damage Markers in Moderate-to-Severe TBI Patients - Relationship to Systemic Catecholamines and Outcome. National Neurotrauma 2015 Symposium. Santa Fe, New Mexico, United States. Presenter(s): Di Battista AP; Rhind SG; Hutchison MG; Baker AJ; Shiu MY; Capone-Neto A; Rizoli SB.
- 2015 Jun 28      **Presenter.** Alterations of circulating chemokines in relation to neurological outcome after moderate-to-severe traumatic brain injury. National Neurotrauma 2015 Symposium. Santa Fe, New Mexico, United States. Presenter(s): Di Battista AP; Rhind SG; Hutchison MG; Baker AJ; Shiu MY; Capone-Neto A; Rizoli SB.
- 2015 Apr 24      **Speaker.** II Reuniao Ibero-Afro-Americana de Trauma e Cirurgia de Trauma e Cirurgia de Emergencia. Campinas, Brazil.

- 2015 Mar 28 **Video Presentation.** Resuscitacao em trauma - coagulopatia. IX Congresso de Trauma e Emergencia LATE - UFRJ. Rio de Janeiro, Brazil.
- 2015 Mar 17 **Speaker.** Trauma and VTE thromboprophylaxis: a timing issue? 35th International Symposium Intensive Care Emergency Medicine. Brussels, Belgium. Presenter(s): Padim PA, McFarlan A, Mazin T, Rizoli S, Rezende-Neto J, Belmont C, Canestrini S.
- 2015 Mar 2 Circulating Vascular Adhesion Protein-1 and Syndecan-1 are elevated after TBI in relation to sympathetic hyperactivity. 11th World Congress on Brain Injury. The Hague, Netherlands. Presenter(s): Di Battista AP; Rhind SG; Shiu MY; Baker AJ; Hutchison MG; Rizoli S.
- 2014 Nov 10 **Speaker.** Trauma Quality Improvement Program (TQIP) 2014. Annual Scientific Meeting and Trauma. Venous thromboembolism prophylaxis in trauma: How are we doing?; Damage control resuscitation: theory vs reality. Illinois, Chicago, United States. Presenters: Rezende Neto J; Belmon C; Canestrini S; McFarlan A; Ahmed N; Rizoli S.
- 2014 Nov **Chair.** Conference on thromboelastometry-based transfusion guidelines for early trauma resuscitation. Pennsylvania, United States.
- 2014 Jun 29 **Presenter.** 32nd Annual National Neurotrauma Symposium. Modulation of inflammatory cytokine balance by sympathetic nervous system activation after traumatic brain injury. Presenters: Hassan SS, Di Battista AP, Baker AJ, Topolovec-Vranic J, Capone-Neto A, Rhind SG. San Francisco, California, United States.
- 2014 June 27 **Presenter.** PanAmerican Trauma Society International Trauma Tele Grand Rounds. Crush extremity - Case presentation.
- 2014 May 24 **Chair.** 15th European Congress of Trauma & Emergency Surgery and 2nd World Trauma Congress. Diagnosing coagulopathy immediately after trauma; Advances in diagnosis and treatment of early trauma coagulopathy Prehospital trauma care Frankfurt, Germany.
- 2014 May 9 **Presenter.** PanAmerican Trauma Society International Trauma Tele Grand Rounds. Blunt cardiac injury - case presentation.
- 2014 Apr 26 **Lecturer.** 8th CIRURGIAO - Update in General Surgery, Emergency and Trauma of the Faculty of Medicine of the University of Sao Paulo (FMUSP). What every surgeon should know about compartment syndrome; The best timing to abbreviate the operation in damage control; The management of the trauma patient with massive bleeding.Sao Paulo, Brazil.
- 2014 Apr 23 **Lecturer.** XVI Trauma Course and Pre-Congress Brazilian Trauma Leagues (Pre-COLT) 2014. The team work in the trauma room. Campinas, Brazil.
- 2014 Apr 22 **Lecturer.** School of Medicine of Ribeirao Preto Symposium. Coagulopathy in trauma. Preto, Ribeirao, Brazil.

2014 Mar 28 **Lecturer.** International Course Advanced Medical Response in Disasters via teleconference. Crush injuries.

### Provincial

2015 Sep 19 **Chair & Judge.** Resident and Fellows Paper Competition of the Trauma Association of Canada and Committee on Trauma of the American College of Surgeon at the Canadian Surgery Forum. Quebec City, Quebec, Canada.

2015 Sep 18 **Attendee.** Canadian Surgery Form. Quebec City, Quebec, Canada.

2014 Apr 9 **Chair.** Annual Scientific Meeting of the Trauma Association of Canada. Session Open Paper Presentations Stream 2A; Presidential Address; Montreal, Quebec, Canada.

2014 Apr **Presenter.** Trauma Association of Canada Annual Scientific Meeting. Nerve Stimulation Improves Coagulopathy in Hemorrhagic Shock: A Thromboelastometric Study in an Animal Model. Presenters: Rezende-Neto J, Lage R, Carvalho Jr M, Almeida T, Trant C, Andrade M, Kushmerick C, Rizoli S, Cunha-Melo J. Montreal, Quebec, Canada.

2014 Apr **Presenter.** Trauma Association of Canada Annual Scientific Meeting. Traumatic brain injury is not associated with hyperfibrinolysis. Presenters: Vegias P, Nascimento B, Callum J, da Luz, LT, Rezende-Neto J. Montreal, Quebec, Canada

2014 Apr **Presenter.** Trauma Association of Canada Annual Scientific Meeting. Assessing the time to CT scan and outcomes in moderate to severe traumatic brain injury. Presenters: Sobrian-Couroux S, McFarlan A. Montreal, Quebec, Canada.

2014 Apr **Presenter.** Trauma Association of Canada Annual Scientific Meeting. Exception of written consent for emergency research: the views and values of Canadians. Presenters: Perez A, Trpcic S, Nascimento B. Montreal, Quebec, Canada.

2014 Apr **Presenter.** Trauma Association of Canada Annual Scientific Meeting. Effect of 1 (red blood cell): 1 (plasma) transfusion on coagulation of severely injured patients. Presenters: Nascimento B, da Luz LT, Callum J, Tien H. Montreal, Quebec, Canada.

2014 Apr **Presenter.** Trauma Association of Canada Annual Scientific Meeting. Presence of a Traumatic Brain Injury is not an Independent Predictor of Acute Coagulopathy in Trauma Patients – Poster. Presenters: Paskar D, Rezende-Neto JB, Scarpelini S, Nascimento B.



- 2014 Apr **Presenter.** Trauma Association of Canada Annual Scientific Meeting. Isolated Vena Cava Injuries from Blunt Trauma: A Diagnostic Dilemma with Life-Threatening Hemorrhage – Poster. Presenters: Kim M, Rezende-Neto JB. Montreal, Quebec, Canada.
- 2014 Apr **Presenter.** Trauma Association of Canada Annual Scientific Meeting. The road to trauma distinction: a partnership between Accreditation Canada and the Trauma Association of Canada to design an accreditation program – Poster. Presenters: Taulu T, Sarakbi D, Phillips L, Tallon J, Poirier P, Simons R, Rizoli S, Brenneman F, MacDonald B. Montreal, Quebec, Canada.
- 2014 Feb 19 **Lecturer.** Trauma Symposium, University of British Columbia. Pre-hospital trauma resuscitation; Coagulation and trauma. British Columbia, Vancouver, Canada.
- National**
- 2014 June 3 **Lecturer.** Canadian Association of Emergency Physicians CAEP 2014. Coagulopathies in trauma: the growing use of fibrinogen and thromboelastography. Ottawa, Ontario, Canada.
- Local**
- 2015 Oct 26 **Lecturer.** Red Cell Transfusion - Lessons learned from trauma. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2015 Oct 9 **Lecturer/Speaker via Teleconference.** Ballooning or Bruised: A Case of Blunt Cardiac Trauma. Internal Trauma Tele-Grand Rounds. Toronto, Ontario, Canada.
- 2014 Oct 29 **Lecturer.** Critical Care Canada Forum. TBI - catecholamines and outcome; Massive transfusion - the knowledge vs practice gap. Toronto, Ontario, Canada.
- 2015 Aug 12 **Lecturer.** Damage control surgery and resuscitation. St. Michael's Hospital Trauma Rounds. Toronto, Ontario, Canada
- 2014 Jul 29 **Presenter.** St. Michael's Hospital Keenan Research Summer Student Day. Evaluation of Interchangeability and Predictive Value of ROTEM and TEG (Poster). Presenters: Min A, Sanchez AP, Shek P, Grodecki R, Peng H. Toronto, Ontario, Canada.
- 2014 Jul 15 **Lecturer.** St. Michael's Hospital 6th Breakfast of Champions. Trauma is a team sport. Toronto, Ontario, Canada.

- 2014 Jul 15      **Lecturer.** St. Michael's Hospital 6th Breakfast of Champions. Traumatic brain injury is not associated with hyper fibrinolysis (Poster). Presenters: Veigas P, Nascimento B, Callum J, da Luz LT, Rezende-Neto J. Toronto, Ontario, Canada.
- 2014 Jun 06      **Lecturer.** University of Toronto Visiting Professor in Trauma Research Symposium. Toronto, Ontario, Canada.
- 2014 May 12      **Chair.** Canadian Severe Bleeding Management Meeting. Neurosurgery and drug-induced intracerebral hemorrhage; North America perspectives. Toronto, Ontario, Canada.
- 2014 May 7      **Lecturer.** Evolutions in Critical Care 2014. Abdominal hypertension and compartment syndrome. Toronto, Ontario, Canada.
- 2014 Mar 17      **Expert discussant.** Evidence Based Reviews in Surgery - Journal Club, University of Toronto, Toronto, Ontario, Canada.
- 2014 Feb 28      **Lecturer.** The Common, the Rare and the Deadly Trauma Conference. Opening remarks. Toronto, Ontario, Canada.

### **Honours and Awards**

- 2014    Director Trauma and Acute Care. University of Toronto
- 2014    Honorary Member. Paraguayan Society of Trauma. Distinction

**Dr. Christer Sinderby (St. Michael's Hospital)**

**Peer Reviewed Funding**

2007 – present      **Principal Investigator.** Maquet Critical Care and St. Michael's Hospital.  
[Contracts]

**Invited Lectures and Presentations**

**International**

2014 July 15      **Invited Speaker.** Japan Society of Respiratory Care Medicine . The  
Developmental Story of NAVA. Akita, Japan

**Provincial**

2014 May 6      **Invited Speaker.** Alberta Children's Hospital. NAVA workshop. Calgary,  
Alberta, Canada.

2014 May 5      **Invited Speaker.** Royal Columbian Hospital. NAVA workshop. British  
Columbia, Vancouver, Canada.

2014 May 5      **Invited Speaker.** Surrey Memorial Hospital. NAVA workshop. British  
Columbia, Vancouver, Canada.

**Local**

2014 Nov 27      **Invited Speaker.** U of T Interdepartmental Critical Care Medicine. Critical  
Care Physiology Rounds. Enhancing CO2 clearance. Toronto, Ontario,  
Canada.

**Dr. Arthur Slutsky (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journals**

Bein T, Muller T, Graf BM, Philipp A, Zeman F, Schultz MJ, **Slutsky AS**, Weber-Carstens S. Factors of tidal volume variation during augmented spontaneous ventilation in patients on extracorporeal carbon dioxide removal. A multivariate analysis. *Minerva Anesthesiologica* 2015; 81(1): pp 28-32. **Coauthor or Collaborator.**

Amato M, Meade M, **Slutsky AS**, Brochard L, Costa ELV, Schoenfeld DA, Stewart TE, Briel M, Talmor D, Mercat A, Richard JCM, Carvalho CRR, Brower RG. Driving pressure and survival in acute respiratory distress syndrome. *New England Journal of Medicine* 2015; 372(8): pp 747-55. **Coauthor or Collaborator.**

Liu L, Liu S, Xie J, Yang Y, **Slutsky AS**, Beck J, Sinderby C, Qiu H. Assessment of patient-ventilator breath contribution during neurally adjusted ventilatory assist in patients with acute respiratory failure. *Critical Care* 2015; 19(1): pp 43. **Coauthor or Collaborator.**

Mao P, Wu S, Li J, Fu W, He W, Liu X, **Slutsky AS**, Zhang H, Li Y: Human alveolar epithelial type II cells in primary culture. *Physiological Reports* 2015; 3(2): pp 1-12. **Coauthor or Collaborator.**

Morrison LJ, Brooks SC, Dainty KN, Dorian P, Needham DM, Ferguson ND, Rubenfeld GD, **Slutsky AS**, Wax RS, Zwarenstein M, Thorpe K, Zhan C, Scales DC; on behalf of the Strategies for Post-Arrest Care Network. Improving use of targeted temperature management after out-of-hospital cardiac arrest: A stepped wedge cluster randomized controlled trial. *Critical Care Medicine* 2015; 43(5): pp 954-65. **Coauthor or Collaborator.**

Edwards AM, Arrowsmith CH, Bountra, C, Bunnage ME, Feldmann M, Knight JC, Patel DD, Prinos P, Taylor MD, Sundstrom M, on behalf of the SCC Open Source Target Discovery Partnership. Preclinical target validation using patient-derived cells. *Nature Reviews Drug Discovery* 2015; 14(3): pp 149-50. **Coauthor or Collaborator.**

Vincent JL, Hall JB, **Slutsky AS**. Ten big mistakes in intensive care medicine. *Intensive Care Medicine* 2015; 41(3): pp 505-7. **Senior Responsible Author.**

J, Cabrera-Benitez NE, Valladares F, Garcia-Hernandez S, Ramos-Nuez A, Martin-Barrasa JL, Muros M, Kacmarek RM, **Slutsky AS**. Tryptase is involved in the development of early ventilator-induced pulmonary fibrosis in sepsis-induced lung injury. *Critical Care* 2015; 19: pp 138. **Senior Responsible Author.**

**Slutsky AS**:. ATS Discoveries Series: History of mechanical ventilation. From Vesalius to ventilator-induced lung injury. *American Journal of Respiratory and Critical Care Medicine* 2015; 191(10): pp 1106-15. **Principal Author.**

Zhang R, Pan Y, Fanelli V, Wu S, Luo AA, Islam D, Han B, Mao P, Ghazarian M, Zeng W, Spieth PM, Wang D, Khang J, Mo H, Liu X, Uhlig S, Liu M, Laffey J, **Slutsky AS**, Li Y, Zhang H. Mechanical stress induces lung fibrosis via medkine signaling pathway. *American Journal of Respiratory and Critical Care Medicine* 2015: 192(3): pp 315-23. **Coauthor or Collaborator.**

Godet T, Combes A, Zogheib E, Jabausdon M, Futier E, **Slutsky AS**, Constantin JM. Novel CO2 removal device driven by a renal-replacement system without hemofilter. A first step experimental validation. *Anaesth Crit Care Pain Med - Societe Francaise d'Anesthesie et de reanimation (SFAR)* 2015: 34(3): pp 135-40. **Coauthor or Collaborator.**

Curley GF, Laffey JG, Zhang H, **Slutsky AS**. Non-invasive respiratory support for acute respiratory failure-high flow nasal cannula oxygen or non-invasive ventilation? *Journal of Thoracic Disease* 2015: 7(7): pp 1092-7. **Coauthor or Collaborator.**

Cabrera-Benitez NE<sup>1</sup>, Valladares F, Garcia-Hernandez S, Ramos-Nuez A, Martin-Barrasa JL, Martinez-Saavedra MT, Rodriguez-Gallego C, Muros M, Flores C, Liu M, **Slutsky AS**, Villar J. Altered profile of circulating endothelial-derived microparticles in ventilator-induced lung injury. *Critical Care Medicine* 2015: 43(12): pp 551-9. **Coauthor or Collaborator.**

Liu L, Takahashi D, Qui H, **Slutsky AS**, Sinderby C, Beck J. Feasibility of neurally adjusted positive end-expiratory pressure in rabbits with early experimental lung injury. *BMC Anesthesiology* 2015: 15(1): pp 124-34. **Coauthor or Collaborator.**

Steinberg BE, Goldenberg NM, Fairn GD, Kuebler WM, **Slutsky AS**, Lee WL: Is basic science disappearing from medicine? The decline of biomedical research in the medical literature. *FASEB Journal* 2015: epub ahead: pp of print. **Coauthor or Collaborator.**

Tabuchi A, Nickles HT, Kim M, Semple JW, Koch E, Brochard L, **Slutsky AS**, Pries AR, Kuebler WM. Acute lung injury causes asynchronous alveolar ventilation which can be corrected by individual sighs. *American Journal of Respiratory and Critical Care Medicine* 2015: 193(4): pp 396-406. **Coauthor or Collaborator.**

Fanelli V, Morita Y, Cappello P, Ghazarian M, Sugumar B, Delsedime L, Batt J, Ranieri VM, Zhang H, **Slutsky AS**. Neuromuscular blocking agent Cisatracurium attenuates lung injury by inhibition of nicotinic. *Anesthesiology* 2015: 124(1): pp 132-40t. **Senior Responsible Author.**

Neto AS, Schultz MJ, **Slutsky AS**. Current concepts of protective ventilation during general anaesthesia. *Swiss Med Weekly* 2015: epub ahead: pp of print. **Senior Responsible Author.**

Razak F, Corsi DJ, **Slutsky AS**, Kurpad A, Berkman L, Laupacis A, Subramanian SV. Prevalence of body mass index lower than 16 among women in low- and middle-income countries. *JAMA* 2015: 314(20): pp 2164-2171. **Coauthor or Collaborator.**

Del Sorbo L, Goffi A, Goligher E, Fan E, **Slutsky AS**. Setting mechanical ventilation in ARDS patients during VV-ECMO: where are we? *Minerva Anestesiologica* 2015: 81(12): pp 1369-1376. **Senior Responsible Author.**

Steinberg BE, Tracey KJ, **Slutsky AS**. Bacteria and the neural code. *N Engl J Med*. 2014 Nov 27: 371(22);2131-3. **Senior Responsible Author.**

Curley GF, **Slutsky AS**. Year in review 2013: Critical Care--respirology. Crit Care. 2014 Oct 15;18(5); 577. **Senior Responsible Author**.

Del Sorbo L, Goffi A, Goligher E, Fan E, **Slutsky AS**. Setting Mechanical ventilation in ARDS patients during VV-ECMO: where are we? Minerva Anesthesiol. 2014 Oct 10. **Senior Responsible Author**.

Goldenberg NM, Leligdowicz A, **Slutsky AS**, Friedrich JO, Lee WL. Is nosocomial infection really the major cause of death in sepsis? Crit Care. 2012 Oct 1;18(5);540. **Coauthor or Collaborator**.

Combes A, Brodie D, Bartlett R, Brochard L, Brower R, Conrad S, De Backer D, Fan E, Ferguson N, Fortenberry J, Fraser J, Gattinoni L, Lynch W, MacLaren G, Mercat A, Mueller T, Ogino M, Peek G, Pellegrino V, Pesenti A, Ranieri M, **Slutsky AS**, Vuylsteke A, International ECMO Network (ECMONet). Position paper for the organization of extracorporeal membrane oxygenation programs for acute respiratory failure in adult patients. Am J Respir Crit Care Med. 2014 Sept 1; 190(5);488-96. **Coauthor or Collaborator**.

Rodríguez-González R, Martín-Barrasa JL, Ramos-Nuez Á, Cañas-Pedrosa AM, Martínez-Saavedra MT, García-Bello MÁ, López-Aguilar J, Baluja A, Álvarez J, **Slutsky AS**, Villar J. Multiple system organ response induced by hyperoxia in a clinically relevant animal model of sepsis. Shock. 2014 Aug 1;42(2);148-53. **Coauthor or Collaborator**.

Kneyber MC, Zhang H, **Slutsky AS**. Ventilator-induced lung injury. Similarity and differences between children and adults. Am J Respir Crit Care Med. 2014 Aug 1;190(3); 258-65. **Senior Responsible Author**.

Del Sorbo L, Parotto M, **Slutsky AS**. Increasing the number of lungs available for transplantation. Minerva Anesthesiol. 2014 Aug 1;80(8): 942-53. **Senior Responsible Author**.

Goligher EC, Kavanagh BP, Rubenfeld GD, Adhikari NK, Pinto R, Fan E, Brochard LJ, Granton JT, Mercat A, Marie Richard JC, Chretien JM, Jones GL, Cook DJ, Stewart TE, **Slutsky AS**, Meade MO, Ferguson ND. Oxygenation response to positive end-expiratory pressure predicts mortality in acute respiratory distress syndrome. A secondary analysis of the LOVS and ExPress trials. Am J Respir Crit Care Med. 2014 Jul 1;190(1);70-6. **Coauthor or Collaborator**.

Cabrera-Benitez NE, Laffey JG, Parotto M, Spieth PM, Villar J, Zhang H, **Slutsky AS**. Mechanical ventilation-associated lung fibrosis in acute respiratory distress syndrome: a significant contributor to poor outcome. Anesthesiology. 2014 Jul 1;121(1);189-98. **Senior Responsible Author**.

Adhikari NK, Dellinger RP, Lundin S, Payen D, Vallet B, Gerlach H, Park KJ, Mehta S, **Slutsky AS**, Friedrich JO. Inhaled nitric oxide does not reduce mortality in patients with acute respiratory distress syndrome regardless of severity: systematic review and meta-analysis. Crit Care Med. 2014 Feb 1;42(2);404-12. **Coauthor or Collaborator**.

Goligher EC, Villar J, **Slutsky AS**. Positive end-expiratory pressure in acute respiratory distress syndrome: when should we turn up the pressure? Crit Care Med. 2014 Feb 1: 42(2);448-50. **Senior Responsible Author.**

Mirabella L, Grasselli G, Haitzma JJ, Zhang H, **Slutsky AS**, Sinderby C, Beck J. Lung protection during non-invasive synchronized assist versus volume control in rabbits. Crit Care. 2014 Jan 23:18(1);R22. **Coauthor or Collaborator.**

### **Book Chapters**

Lee WL, **Slutsky AS**. Acute Hypoxemic Respiratory Failure and ARDS. In: Murray and Nadel's Textbook of Respiratory Medicine, 6th edition (Broaddus VC, Mason RJ, Ernst, JD, King Jr, TE, Lazarus SC, Murray JF, Nadel JA, Slutsky AS, Gotway MB, eds). Elsevier Saunders, Philadelphia 2015: pp 1740-1760. **Senior Responsible Author.**

**Slutsky AS (Co-Editor):** Murray & Nadel's Textbook of Respiratory Medicine, 6th Edition, Volumes 1 & 2 (Broaddus VC, Mason RJ, Ernst JD, King Jr TE, Lazarus SC, Murray JF, Nadel JA, Slutsky AS, Gotway MB, eds). Elsevier Saunders, Philadelphia 2015. **Principal Author.**

Fanelli V, Granton JT, **Slutsky AS**. Ventilator-Induced Lung Injury. In: Principles of Critical Care, 4th edition (Hall JB, Schmidt GA, Kress JP, eds). McGraw Hill, New York 2015: pp 439-448. **Senior Responsible Author.**

### **Letters to Editor**

Felten-Barentsz KM, Haans AJ, **Slutsky AS**, Heunks LM, van der Hoeven JG. Feasibility and safety of hydrotherapy in critically ill ventilated patients. American Journal of Respiratory and Critical Care Medicine 2015: 191(4): pp 476-77. **Coauthor or Collaborator.**

**Slutsky AS**, Ranieri VM. Ventilator-induced lung injury. New England Journal of Medicine 2014: 370(10): pp 980. **Principal Author.**

### **Peer Reviewed Fundings**

2015 – 2019	<b>Principal Investigator.</b> Mechanisms and Therapies of ARDS. Slutsky AS, Zhang H: Canadian Institutes of Health Research - Foundation Scheme. \$2,588,884.00 CAD. [Grants]
2014 Nov – 2019 Oct	<b>Principal Investigator.</b> CIHR Health Researcher of the Year Prize Grant. Canadian Institutes of Health Research (CIHR). \$500,000.00 CAD. [Grants]
2013 – 2016	<b>Principal Investigator.</b> Mechanisms of ventilator-induced lung injury and remodeling. Slutsky AS, Zhong N, Zhang H: CIHR (\$225,000.00); National Natural Science Foundation of China. (\$163,800.00). \$338,800.00 CAD [Grants]

- 2010 – 2016 **Co-Investigator.** From Bench to Bedside to Curbside. Clinical Research Consortium to Improve Resuscitation Outcomes. National Institutes of Health (NIH). PI: Morrison LJ. Collaborator(s): Dorian P. \$600,000.00 CAD. [Grants]
- 2010 – 2016 **Co-Investigator** Resuscitation Outcomes Consortium Core Training Grant: NIH (\$1,009,800.00), Heart & Stroke Foundation of Canada (\$1,500,000.00), and Canadian Institutes of Health Research (\$1,000,000.00). Collaborator(s): Morrison LJ, Nathens A, Cheskes S, Slutsky AS, Dorian P: National Institutes of Health and funding partners. \$3,509,800.00 CAD. [Grants]
- 2010 – 2016 **Co-Investigator.** From Bench to Bedside to Curbside. Clinical Research Consortium to Improve Resuscitation Outcomes. Canadian Institutes of Health Research (CIHR). PI: Morrison LJ. Collaborator(s): Dorian P. \$1,000,000.00 CAD. [Grants]
- 2010 – 2016 **Co-Investigator.** National Institutes of Health (NIH). PI: Morrison LJ. Collaborator(s): Nathens A, Cheskes S, Dorian P. \$1,009,800.00 CAD. [Grants]
- 2010 – 2016 **Co-Investigator.** Heart and Stroke Foundation of Canada (HSFC) PI: Morrison LJ. Collaborator(s): Nathens A, Cheskes S, Dorian P. \$1,500,000.00 CAD. [Grants]
- 2010 – 2016 **Co-Investigator.** Canadian Institutes of Health Research (CIHR) PI: Morrison LJ. Collaborator(s): Nathens A, Cheskes S, Dorian P. \$1,500,000.00 CAD. [Grants]
- 2010 – 2016 **Co-Investigator.** From Bench to Bedside to Curbside. Clinical Research Consortium to Improve Resuscitation Outcomes. Heart and Stroke Foundation of Canada (HSFC) PI: Morrison LJ. Collaborator(s): Dorian P. \$1,500,000.00 CAD [Grants]
- 2010 – 2015 **Principal Investigator.** Mechanisms of ventilator-induced pulmonary fibrosis and its therapy. Canadian Institutes of Health Research (CIHR) \$808,658.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Nov 11-13 **Invited Speaker.** Chilean Critical Care Society Meeting. Positive end-expiratory pressure: What's new?; High frequency ventilation: What went wrong?; New lung protective strategies for ARDS; Ventilator-induced lung injury: State of the Art. Concepcion, Chile.



- 2015 Oct 3-7 **Invited Speaker.** European Society of Intensive Care Medicine (ESICM). O Keynote Address: Lung protection during mechanical ventilation: A 500 year journey; Hot topics in ARDS (Chair); VILI driving pressure and survival. Berlin, Germany
- 2015 May 26-29 **Invited Speaker.** Simposio Mostra Anestesia Rianimazione e Terapia Intensiva (SMART). Spontaneous breathing: The ultimate lung protection (Chair); Driving pressure: the magic number? Lung protective ventilation (Chair). Milan, Italy
- 2015 May 15-20 **Invited Speaker.** 110th Annual American Thoracic Society (ATS) International Conference. Inaugural Presidential Plenary Lecture: Evolution and development of mechanical ventilation; Mechanical Ventilation: From Vesalius to VILI; Best Practice in ARDS: Mitigating regional overdistension. Denver, Colorado
- 2015 Apr 17-18 **Invited Speaker.** 16th International Conference on Mechanical Ventilation, Co-Director of Conference; Three papers published in the last two years that might change your practice; Driving Pressure: What is it and why might it be important. Madrid, Spain
- 2015 Mar 15-19 **Invited Speaker.** European Society of Intensive Care Medicine. Ventilator-induced Lung Injury; Acute Respiratory Distress Syndrome: New; Oxygen and Hypoxia: Physiological tidbits; High Frequency Ventilation: What went wrong? Brussels, Belgium
- 2014 Sep 20 **Invited Speaker.** Symposium on Intensive Care. ARDS: New insights. Bruges, Belgium.
- 2014 Jun 11-13 **Invited Speaker.** Margaret Turner Warwick Lecture, Imperial College London. Mechanical Ventilation: From Vesalius to VILI. London, England.
- 2014 May 25-31 **Invited Speaker.** Simposio Mostra Anestesia Rianimazione e Terapia Intensiva (SMART). Anesthesia Complications; Ventilator-induced Lung Injury. Milan, Italy.
- 2014 May 23 **Invited Speaker.** Euro-ELSO Meeting. History of ARDS. Paris, France.
- 2014 Mar 17-19 **Invited Speaker.** European Society of Intensive Care Medicine (ESICM) Mechanical Ventilation Course. Ventilator induced lung injury; Managing severe hypoxemic respiratory failure; HFO worthwhile; Higher PEEP and lower tidal volume?; So, is there still a place for high-frequency ventilation?; Have we made progress in ARDS?; Organ donation - Increasing the number of lungs for transplantation; Biomarkers in ARDS; The role of data safety and monitoring boards. Brussels, Belgium.

- 2014 Jan 6-9            **Invited Speaker.** Guangzhou Medical College.Lung protection for non ARDS patient.Guangzhou, China
- 2014 Jan 16-19        **Invited Speaker.** UK Intensive Care Society Annual Meeting. Making sense of recent ventilation studies; Understanding the basics: Ventilation; David Bennett Session. London, United Kingdom.

### **Honours and Awards**

- 2015            Inaugural Presidential Plenary Lecturer, the 110th Annual Thoracic Society (ATS) International Conference Lecture: "Evolution and Development of Mechanical Ventilation". Denver, Colorado, USA.
- 2015            Elected to the Fellowship of the Royal Society of Canada in the Life Sciences Division of the Academy of Science.
- 2014            Canada's Health Researcher of the Year. Canadian Institutes of Health Research
- 2014            David Bennett Lectureship. UK Intensive Care Society.
- 2014            Margaret Turner Warwick Lecture. Imperial College London
- 2014            Engineering Alumni Medal. University of Toronto
- 2014            Honorary Member. European Society of Intensive Care Medicine (only given to 5 non-Europeans since its inception)

**Dr. Natalie Wong (St. Michael's Hospital)**

**Peer Reviewed Funding**

2014 - present                    **Principal Investigator.** Simulation Training of Cardiac Arrest Team for In-Patient Cardiac Arrests. Association of Fundraising Professionals (AFP). AFP grant. Collaborator(s): ER & Anesthesia Departments, St. Michael's Hospital. \$91,000.00 CAD. [Grants]

**Non-Peer-Reviewed Fundings**

2013 May - present            **Principal Investigator.** Improved Care for In-Hospital Cardiac Arrest (IHCA). SMH MRP. \$15,908.00 CAD. [Grants]

2005 Jul - present            **Principal Investigator.** Observational Study of residents performance during simulated cardiac arrests. ZOLL Medical Corporation. Collaborator(s): Paul Dorian. [Industrial Grants]

**Honours and Awards**

2015                            Outstanding Teaching Award, General Internal Medicine, Dept of Medicine, Faculty of Medicine. (Postgraduate MD, Core Program)

**Dr. Haibo Zhang (St. Michael's Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Vardy JL, Dhillon HM, Pond GR, Rourke SB, Bekele T, Renton C, Dodd A, **Zhang H**, Beale P, Clarke S, Tannock IF. Cognitive function in patients with colorectal cancer who do and do not receive chemotherapy: a prospective, longitudinal, controlled study. *Journal of Clinical Oncology*. 2015 Dec 1;33(34):4085-4092. **Coauthor or Collaborator**.

Zhang R, Pan Y, Fanelli V, Wu S, Luo AA, Islam D, Han B, Mao P, Ghazarian M, Zeng WM, Spieth P, Wang D, Khang J, Mo HY, Liu XQ, Uhlig S, Liu M, Laffey J, Slutsky AS, Li Y, **Zhang H**. Mechanical stress induces lung fibrosis via midkine signaling pathway. *American Journal of Respiratory and Critical Care Medicine*. 2015 Aug 1;192(3):315-323. **Principal Author**.

Fanelli V, Morita Y, Cappello P, Mirna Ghazarian, Sugumar B, Delsedime L, Batt J, Ranieri VM, **Zhang H**, MD, Slutsky, AS. Neuromuscular blocking agent cisatracurium attenuates lung injury by inhibition of nicotinic acetylcholine receptor- $\alpha 1$  (nAChR $\alpha 1$ ). *Anesthesiology*. 2015 Jul 24. **Co-Principal Author**.

Yin J, Michalick L, Tang C, Tabuchi A, Goldenberg N, Dan Q, Awwad K, Wang L, Erfinanda L, Nouailles-Kursar G, Witzgenrath M, Vogelzang A, Lv L, Lee WL, **Zhang H**, Rotstein O, Kapus A, Szaszi K, Fleming I, Liedtke WB, Kuppe H, Kuebler WM. Role of Transient Receptor Potential Vanilloid 4 in Neutrophil Activation and Acute Lung Injury. *Am J Respir Cell Mol Biol*. 2015 Jul 29;E pub. **Coauthor or Collaborator**.

Curley G, Laffey J, **Zhang H**, Slutsky AS. Noninvasive respiratory support for acute respiratory failure- high flow nasal cannula oxygen or non-invasive ventilation? *Journal of Thoracic Disease*. 2015 Jul 7;7(7):1092-1097. **Coauthor or Collaborator**.

Sugiyama MG, Armstrong SM, Wang C, Hwang D, Leong-Poi H, Advani A, Advani S, **Zhang H**, Szaszi K, Tabuchi A, Kuebler WM, Van Slyke P, Dumont DJ, Lee WL. The Tie2-agonist Vasculotide rescues mice from influenza virus infection. *Scientific Reports*. 2015 Jun 5;5:11030. **Coauthor or Collaborator**.

Mao P, Wu S, Li J, Fu W, He W, Liu X, Slutsky AS, **Zhang H**, Li Y. Human alveolar epithelial type II cells in primary culture. *Physiological Reports*. 2015 Feb 12;3(1):e12288. **Coauthor or Collaborator**.

Nagawa NK, Cruz RJ Jr, Aikawa P, Correia CJ, Miranda Costa Cruz JW, Mauad T, **Zhang H**, Rocha-E Silva M, Sannomiya P. Pentoxifylline attenuates leukocyte-endothelial interactions in a two hit model of shock and sepsis. *J Surg Res*. 2015 Jan;193(1):421-428. **Coauthor or Collaborator**.

Khadaroo RG, Fortis S, Salim SY, Streuker C, Churchill TA, **Zhang H**. I-FABP as a biomarker for the early diagnosis of acute mesenteric ischemia and resultant lung injury. *PloS One*. 2014 Dec 26. **Senior Responsible Author**.

Chen CM, Cheng KC, Li CF and **Zhang H**. The protective effects of glutamine in a rat model of ventilator-induced lung injury. *J Thorac Dis*. 2014 Sept 24. 6(12):1704-1713. **Senior Responsible Author**.

Vardy JL, Dhillon HM, Pond GR, Rourke SB, Xu W, Dodd A, Renton C, Park A, Bekele T, Ringash J, **Zhang H**, Burkes R, Clarke SJ, Tannock IF. Cognitive functions and fatigue after diagnosis of colorectal cancer. *Annals of Oncology*. 2014 Sept 11. **Coauthor or Collaborator**.

Fortis S, Khadaroo RG, Haitsma JJ, **Zhang H**. Osteopontin is associated with inflammation and mortality in a mouse model of polymicrobial sepsis. *Acta Anaesthesiologica Scandinavica*. 2014 Sept 9.1(6). **Senior Responsible Author**.

Chen, Q, Luo AA, Qiu H, Han B, Ko B H-K, Slutsky AS, **Zhang H**. Monocyte interactions accelerates HCl-induced lung epithelial remodeling. *BMC Pulmonary Medicine*. 2014 Sept. **Senior Responsible Author**.

Nagawa NK, Cruz RJ Jr, Aikawa P, Correia CJ, Miranda Costa Cruz JW, Mauad T, **Zhang H**, Rocha-E Silva M, Sannomiya P. Pentoxifylline attenuates leukocyte-endothelial interactions in a two hit model of shock and sepsis. *J Surg Res*. 2014 Jul 16. **Coauthor or Collaborator**.

Kneyber MC, **Zhang H**, Slutsky AS. Ventilator-induced lung injury: similarity and differences between children and adults. *American Journal of Respiratory and Critical Care Medicine*. 2014 Jul 8. **Coauthor or Collaborator**.

Nguyen DN, Huyghens L, **Zhang H**, Schiettecatte J, Smith JEJ, Vincent J-L. Cortisol is an associated risk factor of brain dysfunction in patients with severe sepsis and septic shock. *BioMed Research International*. 2014 Apr 28. **Coauthor or Collaborator**.

Cabrera-Benitez NE, Laffey J, Parotto M, Spieth PM, Villar J, **Zhang H**. Mechanical ventilation associated lung fibrosis in acute respiratory distress syndrome: a significant contributor to poor outcome. *Anesthesiology*. 2014 Jan 28. **Senior Responsible Author**.

Mirabella L, Grasselli G, Haitsma JJ, **Zhang H**, Slutsky AS, Sinderby C, Beck J. Lung protection during non-invasive synchronized assist versus volume control in rabbits. *Critical Care*. 2014 Jan. 18(1):R22. **Coauthor or Collaborator**.

Spieth PM, **Zhang H**. Pharmacological therapies for acute respiratory distress syndrome. *Current Opinion in Critical Care*. 2014 Jan. 20:113-121. **Senior Responsible Author**.

### Peer-Reviewed Fundings

2015 Jul - 2023 Jun **Co-Investigator**. Mechanisms and therapies of ARDS. Canadian Institutes of Health Research (CIHR). Foundation Scheme. \$2,588,883.00 CAD. [Grants]

2014 Jan - 2016 Dec **Co-Investigator**. Mechanisms of ventilator-induced lung injury and remodeling. Canadian Institutes of Health Research (CIHR). China-Canada Joint Health Research Initiative Grant. PI: Slutsky, Arthur. \$225,000.00 CAD. [Grants]

- 2011 Oct - 2016 Sep **Principal Investigator.** Mechanisms of human neutrophil peptides in lung inflammation. Canadian Institutes of Health Research (CIHR). CIHR Operating Grant. \$828,620.00 CAD. [Grants]
- 2010 Nov - 2015 **Principal Investigator.** Animal studies of ventilator-induced lung injury. Department of Foreign Affairs and International Trade (Canada). Going Global Innovation Grant, Science and Technology Div. GGI-11-127. \$5,544.16 CAD. [Grants]
- 2010 Apr - 2015 Mar **Principal Investigator.** Mechanisms of ventilator-induced pulmonary fibrosis and its therapy. Canadian Institutes of Health Research (CIHR). CIHR Operating Grant. \$798,747.00 CAD. [Grants]

### Non-Peer-Reviewed Fundings

- 2014 Oct - 2019 Sep **Co-Principal Investigator.** Mechanisms of alveolar-capillary barrier injury and repair in acute injury: biophysical, biochemical and biological approaches of intervention. NSF operating grant. 600,000.00 CNY. [Grants]
- 2013 Sep - 2017 Aug Targeting the signaling of human neutrophil peptides in lung injury. NSF Operating Grant. \$145,000 .00 CAD. [Grants]
- 2013 Jan - 2015 Dec **Principal Investigator.** Mechanisms of acute lung injury. Oversea Scholarship Province of Guangdong, China. \$508,475.00 CAD. [Grants]

### Invited Lectures and Presentations

#### International

- 2014 May 18 **Facilitator.** Critical Illness: Novel molecules and models, Thematic Poster Session. American Thoracic Society. San Diego, California, United States.
- 2014 Mar 29 **Invited Speaker.** Ventilator associated lung fibrosis in ARDS: significant contributor to poor outcome. 7th Critical Care Medicine Symposium, The Society of Critical Care Medicine. Guangzhou, Guangdong, China.

**Dr. Gail Annich (Hospital for Sick Children)**

**Peer-Reviewed Publications**

**Journal Articles**

**Annich Gail M**, Wagner D, Scoville B, Vulaj, V, Mueller BA. Intravenous Acetaminophen in Vitro Clearance During Continuous Renal Replacement Therapy: Blood Purification. *Journal of Critical Care*. 2015 Dec 16;41. **Co-Principal Author**.

**Annich GM**, Barbaro R, Robba R, Chapman R, Paden M, Roberts L. Neonatal Risk Estimate Score for Children Using Extracorporeal Respiratory Support (Neo-RESCUERS). *Pediatrics*. 2015 Sep 10. **Principal Author**.

Werho DK, Pasquali SK, Yu S, Donohue J, **Annich GM**, Thiagarajan RR, Hirsch-Romano JC, Gaies M. Epidemiology of Stroke in Pediatric Cardiac Surgical Patients Supported with Extracorporeal Membrane Oxygenation. *American Journal of Respiratory and Critical Care Medicine*. 2015 Jun 8. In Press. **Coauthor**.

**Annich GM**. Extracorporeal Life Support: The Precarious Balance of Haemostasis. *Journal of Thrombosis and Haemostasis*. 2015 Apr 2. In Press. **Principal Author**.

Odetola F, Kidwell K, Paden M, Bartlett R, Davis M, **Annich GM**, Barbaro R. Association of Hospital-Level Volume of Extracorporeal Membrane Oxygenation Cases and Mortality - Analysis of the Extracorporeal Life Support Organization Registry. *American Journal of Respiratory and Critical Care Medicine*. 2015 Feb 19. In Press. **Senior Responsible Author**.

Kawai, Yu MD; Cornell, Timothy T. MD; Cooley, Elaine G. BSN, LRT; Beckman, Craig N. BSN; Baldrige, Paula K. MSN; Mottes, Theresa A. RN; Luckritz, Kera E. DO, MPH; Plomaritas, Kathryn S. BSN; Meade, J. Michael BSN; Odetola, Folafoluwa O. MD, MPH; Han, Yong Y. MD; Blatt, Neal B. MD, PhD; Annich, Gail M. MD, MS, FRCP(C). Therapeutic Plasma Exchange May Improve Hemodynamics and Organ Failure Among Children With Sepsis-Induced Multiple Organ Dysfunction Syndrome Receiving Extracorporeal Life Support. *Paediatric Critical Care Medicine*. 2015 Jan 20. **Senior Author**.

Werho DK, Pasquali SK, Yu S, Donohue J, **Annich GM**, Thiagarajan RR, Hirsch-Romano JC, Gaies MG. Hemorrhagic Complications in Pediatric Cardiac Patients on Extracorporeal Membrane Oxygenation: An Analysis of the Extracorporeal Life Support Organization Registry. *Pediatric Critical Care Medicine*. 2015 Jan. In Press. **Coauthor or Collaborator**.

Gray BW, Haft JW, Hirsch JC, **Annich GM**, Hirschl R, Bartlett R, Extracorporeal Life Support: Experience with 2,000 Patients. *American Society of Artificial Internal Organs (ASAIO) Journal*. 2014 Aug;61(1):2-7. **Coauthor or Collaborator**.

Gaffney A, Santos-Martinez M, Satti A, Major T, Wynne K, Gun'ko Y, **Annich GM**, Elia G, Radomski M, Blood biocompatibility of surface-bound multi-walled carbon nanotubes. *Nanomedicine*. 2014 Jul 14. **Coauthor or Collaborator**.

Long MT, Wagner D, Maslach-Hubbard A, Pasko DA, Baldrige P, **Annich GM**. Safety and efficacy of recombinant activated factor VII for refractory hemorrhage in pediatric patients on extracorporeal membrane oxygenation: a single center review. *Perfusion*. 2014 Mar;29(2):163-70. **Senior Responsible Author**.

Bryner B, Miskulin J, Smith C, Cooley E, Grams R, Bartlett R, **Annich GM**, Mychaliska GB. Extracorporeal life support for acute respiratory distress syndrome due to severe Legionella pneumonia. *Perfusion*. 2014 Jan;29(1):39-43. **Coauthor or Collaborator**.

Major TC, Brisbois EJ, Jones AM Zanetti ME, **Annich GM**, Bartlett RH, Handa H. Combination of direct thrombin inhibitor and antiplatelet, nitric oxide, for improved hemocompatibility in extracorporeal circulation. *Biomaterials*. 2014. **Co-Principal Author**.

Kawai Y, Cornell TT, Cooley EG, Beckman CN, Baldrige PK, Mottes TA, Luckritz DO, Plomaritas K, Meade MM, Odetola FO, Han YY, Blatt NB, **Annich GM**. Therapeutic Plasma Exchange May Improve Hemodynamics and Organ Failure Among Children with Sepsis-Induced Multiple Organ Dysfunction Syndrome Receiving Extracorporeal Life Support. *Pediatric Critical Care Medicine*. 2014.

### **Book Chapters**

Fleming GM and **Annich GM**. Coagulation, Anticoagulation, and Hemorrhage in the Intensive Care Setting. In: DS Wheeler, HR Wong, T Shanley, editor(s). *Pediatric Critical Care Medicine*. 2014. **Senior Responsible Author**.

### **Peer-Reviewed Funding**

2015 Mar - 2017 Jun **Consultant**. Pediatric Implantable Lung. National Institutes of Health (NIH) (USA). 5R01HD015434-30. PI: Dr. RH Bartlett. \$3,000,000.00 USD. [Grants]

2012 Jul - 2017 Jun **Co-Investigator**. Pediatric Implantable Lung. National Institutes of Health (NIH) (USA). PI: Bartlett RH. \$3,000,000.00 USD. [Grants]

2011 Sep - 2014 Aug **Principal Investigator**. Development of Nonthrombogenic and Biofilm Resistant Catheters for use in Newborns. NIH/FDA. REVISED. \$450,000.00 USD. [Grants]

2009 Aug - 2014 Jul **Principal Investigator**. Teaching Pediatric Resuscitation Skills in Ghana Using Simulation Based Methods. University of Michigan. Global REACH and the Office of Research and Graduate Studies. \$10,000.00 USD. [Grants]



## Invited Lectures and Presentations

### International

- 2015 Sep 18 **Invited Speaker.** Can we have a quality program with less than 10 patients a year? Pro/Con. ELSO. Atlanta, Georgia, United States. Pre-Conference Symposium. (Continuing Education).
- 2015 Sep 18 **Moderator.** ELSO. Atlanta, Georgia, United States. Presenter(s): with Co-Moderator: Dr Melaika Mendonca. (Continuing Education).
- 2015 Sep 15 **Invited Speaker.** Future of ECMO. Paediatric Intensive Care Society. Birmingham, United Kingdom. Scientific Session. (Continuing Education).
- 2015 Sep 14 **Invited Speaker.** How I use ECMO in the setting of severe acute respiratory failure. Paediatric Intensive Care Society. Birmingham, United Kingdom. Masterclass Programme. (Continuing Education).
- 2015 Jul 19 **Invited Speaker.** Managing bleeding and thrombosis in ECMO. Asia Pacific ELSO. Kyôto [Kyoto], Japan. (Continuing Education).
- 2015 Jul 19 **Moderator.** Coagulation and Transfusion. Asia Pacific ELSO. Kyôto [Kyoto], Japan. Presenter(s): Co-moderator: Dr Satoshi Nakagawa (Japan).
- 2015 Jun 7 **Speaker.** ELSO - South and West Asia Chapter. India.Webinar. ECMO Training Program. (Continuing Education).
- 2015 May 9 **Invited Speaker.** Heparin-induced thrombocytopenia - a devastating complication? Euro ELSO. Regensburg, Germany.
- 2015 May 9 **Moderator.** Technique of ECLS in neonates and children. Euro ELSO. Regensburg, Germany. Co-moderator: Dr Certac Cicek (Turkey).
- 2015 Apr **Invited Speaker.** Longitudinal Assessment of Trainees' Pediatric Code Resuscitation Through Simulation. Pediatric Academic Societies. San Diego, California, United States. Presenter(s): Ostwani W.
- 2015 Mar 13 **Invited Speaker.** The Weird and Confounding Pediatric Cases that Confuse the Best of Us! University of Michigan Health System. Howell, Michigan, United States. Survival Flight Conference, 31st Annual Emergency & Critical Care Conference, Howell, Michigan, United States.
- 2015 Feb 25 **Invited Lecturer.** Anything new for Coagulation or is it the same as the old one? Department of Neonatology, Children's National Medical Center. Keystone, Colorado, United States. 31st Annual Children's National Symposium: ECMO and the Advanced Therapies for Respiratory Failure, Keystone, Colorado, United States.

- 2015 Feb 25 **Moderator.** Breakout Session - Coagulation: Challenges and New Approaches. Department of Neonatology, Children's National Medical Center. Keystone, Colorado, United States. 31st Annual Children's National Symposium: ECMO and the Advanced Therapies for Respiratory Failure, Keystone, Colorado, United States.
- 2015 Feb 24 **Moderator.** Breakout Session: Coagulation. Department of Neonatology, Children's National Medical Center. Keystone, Colorado, United States. 31st Annual Children's National Symposium: ECMO and the Advanced Therapies for Respiratory Failure, Keystone, Colorado, United States.
- 2015 Feb 22 **Invited Lecturer.** Special workshop - Adult ECLS: Who, When How! Department of Neonatology, Children's National Medical Center. Keystone, Colorado, United States. 31st Annual Children's National Symposium: ECMO and the Advanced Therapies for Respiratory Failure, Keystone, Colorado, United States.
- 2014 Sep 18 **Moderator.** Pediatric/ Adult Case presentations. ELSO Congress. Ann Arbor, Michigan, United States.
- 2014 Sep 16 **Invited Speaker.** 87 Days on ECMO. ELSO Preconference. Ann Arbor, Michigan, United States.
- 2014 May **Invited Speaker & Moderator.** Best Test to Measure Anticoagulation; Neonatal and Pediatric Circuitry. EuroELSO Congress. Paris, France.
- 2014 May **Invited Speaker.** Anticoagulation & ECMO (with real time French translation); Evaluation of an ECMO program; Bleeding on ECMO: Causes & Management. EuroELSO Congress. Paris, France.
- 2014 Mar **Invited Speaker.** The Weird and Confounding: Pediatric Cases That Confuse the Best of Us Take 5. Annual Survival Spring Conference. Ann Arbor, Michigan, United States.
- 2014 Feb **Speaker/Moderator/Organizer.** The Septic Patient on ECLS-Challenges and New Approaches. 30th Annual ECMO & Advanced Therapies for Respiratory Failure, Children's National Medical Center. Keystone, Colorado, United States. -
- 2014 Feb **Moderator/Organizer.** Bleeding, Anticoagulation, Coagulation, and ECMO: Stop the Madness!!! 30th Annual ECMO & Advanced Therapies for Respiratory Failure, Children's National Medical Center. Keystone, Colorado, United States.
- 2014 Feb **Speaker.** Coagulation Physiology for the simple minded. 30th Annual ECMO & Advanced Therapies for Respiratory Failure, Children's National Medical Center. Keystone, Colorado, United States.

2014 Jan **Invited Speaker.** ECMO in Septic Shock; Principles and Practical Points of Anticoagulation; Development of the Nonthrombogenic Surface. Samsung Medical Center Mechanical Life Support Symposium 2014. Seoul, South Korea.

**Provincial**

2014 May **Invited Speaker.** Seeking the Holy Grail: Understanding and Optimizing Coagulation and Anticoagulation in ECLS, Coagulation and Anticoagulation in ECLS. 2014 Pediatric Academic Societies Meeting. Vancouver, British Columbia, Canada.

**Local**

2015 Nov 27 **Chair of program and lecturer.** Resuscitation Week: Does a Code Blue Program affect patient outcome? Resuscitation Advisory Group, The Hospital for Sick Children. Toronto, Ontario, Canada. (Continuing Education).

2015 Jun 6 **Invited Speaker.** ECMO: Precarious balance of hemostasis. International Society of Thrombosis and Hemostasis. Toronto, Ontario, Canada. (Continuing Education).

2014 Oct 29 **Moderator.** Cardiac Arrest: Prevention, Detection and Management. Critical Care Forum Canada and The Hospital for Sick Children. Toronto, Ontario, Canada. Presenters: Parshuram C, DeCaen A.

**Dr. Corrine Balit (Hospital for Sick Children)**

**Peer-Reviewed Publications**

**Journal Articles**

**Balit CR**, Horan R, Dorofaeff T, Frndova H, Doyle J, Cox PN. Pediatric Hematopoietic Stem Cell Transplant and Intensive Care: Have Things Changed? *Pediatr Crit Care Med*. 2015 Dec 15.

**Coauthor or Collaborator.**

Guidelines for the Prevention of Opioid and Benzodiazepine Withdrawal. 2014 Nov. **Lead Developer.**

**Invited Lectures and Presentations**

**International**

2014 May 1 **Invited Lecturer.** Neurological Emergencies. Critical Care Medicine. Paediatric BASIC Provider Course and Conference. Tel-Aviv, Israel. Israel.

2014 May 1 **Facilitator.** Skills Station: Vascular Access. Critical Care Medicine. Paediatric BASIC Provider Course and Conference. Tel-Aviv, Israel. Israel

2014 May 1 **Facilitator.** Skills Station: Arterial Blood Gas. Critical Care Medicine. Paediatric BASIC Provider Course and Conference. Tel-Aviv, Israel. Israel.

2014 Apr 30 **Invited Lecturer.** Basic Hemodynamic Monitoring. Critical Care Medicine. Israel Paediatric BASIC Provider Course and Conference. Tel-Aviv, Israel.

**Local**

2015 Dec 2 **Invited Lecturer.** Shock States, Etiologies and Management: Goal-directed therapy. Cardiac Education Days, CCCU, The Hospital for Sick Children. Toronto, Ontario, Canada. (Continuing Education).

2015 Nov 18 **Invited Lecturer.** Vasoactive Drugs: Practiced Review with Clinical Cases. Cardiac Education Days, CCCU, The Hospital for Sick Children. Toronto, Ontario, Canada. (Continuing Education).

2015 Nov 11 **Invited Lecturer.** Weaning Guidelines. Center for Pain Management, The Hospital for Sick Children. Toronto, Ontario, Canada. (Continuing Education).

2015 Oct 7 **Invited Lecturer.** Analgesic and Sedative Withdrawal: A Side Effect of Critical Care. Department of Paediatrics, Children's Hospital, London Health Sciences Centre. Toronto, Ontario, Canada.

- 2014 Nov 6      **Invited Lecturer.** Opioid and Benzodiazepine Weaning Guidelines. Conquering the Hurt: Practical Approaches to Paediatric pain Management Conference. The Hospital for Sick Children. Toronto, Canada.
- 2014 Nov 5      **Invited Lecturer.** Shock States and Etiologies and Management: Goal-directed therapy. Interprofessional Cardiology Course. The Hospital for Sick Children. Toronto, Canada.
- 2014 Oct 30      **Senior Author.** Pediatric hemophagocytic lymphohistiocytosis: A critical care perspective. Critical Care Canada Forum. Toronto, Ontario, Canada. Poster Presentation.
- 2014 Oct 30      **Presenter.** Weaning of opioids and benzodiazepines in critically ill children: A quality improvement initiative. Critical Care Canada Forum. Toronto, Ontario, Canada. Poster Presentation.
- 2014 Feb 19      **Invited Lecturer.** Ventilator-Associated Pneumonia: Prevention and Management Strategies. Interprofessional Cardiology Course, The Hospital for Sick Children. Toronto, Canada.

**Dr. Peter Cox (Hospital for Sick Children)**

**Peer-reviewed Publications**

**Journal Articles**

Balit C, Horan R, Dorofaeff T, Ferndova H, Doyle J, **Cox P**. Pediatric Hematopoietic Stem Cell Transplant And Intensive Care: Have Things Changed? Pediatric Critical Care Medicine. 2015 Dec; **Senior Responsible Author**.

Amin R, Sayal A, Syed F, Daniels C, Hoffman A, Moraes TJ, **Cox P**. How long does it take to initiate a child on long-term invasive ventilation? Results from a Canadian pediatric home ventilation program. Canadian Respiratory Journal. 2015 Apr 30;22(2). **Senior Responsible Author**.

Al Shaalan H, Al Qahtani H, Valini R, Al Okaili R, Benseler S, Weitzman S, Tyrrell P, Cox P, Friedman J, Schneider R . M.Abdelhalleem,MD, D.Manson. Thoracic, abdominal and pelvic CT and US imaging features in children with hemophagocytic lymphohistocytosis.Submitted to Annals of Saudi Medicine. Annals of Saudi Medicine. 2015 Apr 13. **Co-author or Collaborator**.

Winsor S, Bensimon C, Sibbald R, Anstey K, Greenberg R, Chidwick O, Coughlin K, **Cox PN**, Fowler R, Godkin D, Zlotnik Shaul R. Identifying Prioritization Criteria to Supplement Critical Care Triage Protocols for Allocation of Ventilators During a Pandemic Influenza. Healthcare Quarterly. 2014 September. 17(2):44-51. **Co-author or Collaborator**.

Balit C, Horan R, Dorofaeff T, Ferndova H , Doyle J, **Cox PN**. Bone Marrow Transplantation. 2014 July.

Zakova M, Pong S, Trope A, Atenafu EG, Papaioannou V, Bitnun SA, Richardson S, Schwartz S, **Cox PN**, Parshuram C, Seto W. Dose Derivation of Once-Daily Dosing Guidelines for Gentamicin in Critically Ill Pediatric Patients. Therapeutic Drug Monitoring. 2014 May. **Co-author or Collaborator**.

Ngan B, Merico D, Marcus N, Kim V, Upton J, Bates A, Herbrick J, Nalpathamkalam T, Thiruvahindrapuram B, **Cox PN**, Roifman C. Mutations in Tetratricopeptide repeat domain 7A (TTC7A) are associated with Combined Immunodeficiency with Dendriform lung Ossification but no intestinal atresia. LymphoSign Journal. 2014 April. **Co-author or Collaborator**.

## **Invited Lectures and Presentations**

### **International**

- June 2014            **Invited Speaker.** Patient Safety Meeting. United States.
- April 2014           **Invited Speaker.** World Federation of Paediatric Intensive Care Societies. Turkey, Istanbul.

### **National**

- 2014 Feb            **Invited Speaker.** How to we respond to Stressors (Moderator) Too much of a good thing? Is oxygen harmful. Annual Canadian Critical Care Conference. Whistler, British Columbia, Canada.

### **Local**

- 2014 Apr            **Invited Speaker.** Congenital Diaphragmatic Hernia. Maternal - Fetal Medicine Division, Mt Sinai Hospital. Toronto, Ontario, Canada.
- 2014 Feb            **Invited Speaker.** Didactic & Simulation Session. Credit Valley Hospital, Mississauga, Ontario, Canada.
- 2014 Jan            **Invited Speaker.** Transport Orientation lover airway distress lecture. ACTS Team, Hospital for Sick Children. Toronto, Ontario, Canada.

## **Honours and Awards**

- 2014 Jun            Patient Safety Champion. Patient Safety Meeting. United States

**Dr. Alejandro Floh (The Hospital for Sick Children)**

**Peer-reviewed Publications**

**Journal Articles**

McBride ME, **Floh AA**, Krishnamurthy G, Checchia P, Klugman D. Advancing Cardiac Critical Care: A call for training, collaboration and family engagement. World Journal of Pediatric and Congenital Heart Surgery. 2015 Dec 2. In Press. **Co-author or Collaborator.**

Schwartz SM, **Floh AA**, Laussen PC. Pharmacological Manipulation of Peripheral Vascular Resistance in Single Ventricle Patients (Stages I, II, and III of Palliation). Curr Vasc Pharmacol. 2015 Oct 14. **Co-author or Collaborator.**

Jean-St-Michel E, Chetan D, Schwartz SM, Van Arsdell GS, **Floh AA**, Honjo O, Conway J. Outcomes in Patients with Persistent Ventricular Dysfunction After Stage I Palliation for Hypoplastic Left Heart Syndrome. Pediatr Cardiol. 2015 Sep 22;36(7):1-9. **Co-author or Collaborator.**

**Floh AA**, Nakada M, La Rotta G, Mah K, Herridge JE, Van Arsdell GS, Schwartz SM. Systemic Inflammation Increases Energy Expenditure Following Pediatric Cardiopulmonary Bypass. Pediatric Critical Care Medicine. 2015 Feb 3. **Principal Author.**

Schwartz S, **Floh AA**. Is glucose metabolism important for patients on extracorporeal membrane oxygenation? Pediatric Critical Care Medicine. **Senior Responsible Author.**

Schwartz S, **Floh AA**. Is this heart going to work? Pediatric Critical Care Medicine. 2014 November. 15(9):909-10. **Senior Responsible Author.**

**Floh AA**, Manlhiot C, Redington A, McCrindle BW, Clarizia N, Caldarone C, Van Arsdell GS, Schwartz S. Insulin Resistance and Inflammation are a Cause of Hyperglycemia after Pediatric Cardiopulmonary Bypass Surgery. 2014 Oct. **Principal Author.**

**Peer-Reviewed Fundings**

2014 - present **Co-Investigator.** Randomized study of early nutritional delivery on glucose control, insulin resistance and systemic inflammation following pediatric cardiac surgery. Pediatric Heart Network Scholars Grant. \$74,950.00 CAD. [Clinical Trials]



## Invited Lectures and Presentations

### International

- 2014 Dec 13 **Invited Speaker.** Why do we need family-centred care? Pediatric Cardiac Intensive Care Society 10th International Conference. Miami, Florida, United States. (Continuing Education).
- 2014 Nov **Co-author.** Frequency and Contributing Factors to Diaphragm Paresis Following Pediatric Cardiac Surgery. American Heart Association. Chicago, Illinois, United States. Presenter(s): Zafurallah I, Honjo O, Laussen P, MacDonald C, Floh AA. (Poster Abstract Presentation).

### Local

- 2015 Nov 4 **Invited Lecturer.** Acute Fulminant Myocarditis. Sick Kids Cardiology Program, The Hospital for Sick Children. Toronto, Ontario, Canada. (Continuing Education).
- 2015 Nov 4 **Invited Lecturer.** Cardiac Patient on ECMO. The ECMO Specialist's Training Course, Sick Kids Hospital. Toronto, Ontario, Canada. (Continuing Education).
- 2015 Oct 24 **Invited Speaker.** Effective Use of Data to Impact Quality in Patients with Congenital Heart Disease: Harnessing Big Data in the Cardiac ICU. Canadian Cardiovascular Congress. Toronto, Ontario, Canada.
- 2015 Jul 3 **Invited Lecturer.** Low Cardiac Output Syndrome. Cardiac Study Days, The Hospital for Sick Children. Toronto, Ontario, Canada. (Continuing Education).
- 2015 May 21 **Invited Lecturer.** Consent Talk. Peter Gilgan Center for Research & Learning, Sick Kids. Toronto, Ontario, Canada. (Continuing Education).
- 2015 Mar 4 **Invited Lecturer.** Postoperative Management of Hypoplastic Left Heart Syndrome. Sick Kids Cardiology Program, The Hospital for Sick Children. Toronto, Ontario, Canada. Presenter(s): Dr **Alejandro Floh.** (Continuing Education).
- 2014 Nov 12 **Invited Speaker.** Acute Fulminant Myocarditis. Interprofessional Cardiology Course. The Hospital for Sick Children. Toronto, Ontario, Canada. (Continuing Education).
- 2014 Jun 6 **Invited Speaker.** Critical Illness Hyperglycemia following Pediatric Bypass Surgery. The 6th Annual Cardiac Symposium: Non-Structural Heart Disease in Children. The Hospital for Sick Children. Toronto, Ontario, Canada. (Continuing Education).

2014 Feb 26

**Invited Speaker.** Post-operative Management of Hypoplastic Left Heart Syndrome. George Brown Acute Interprofessional Cardiology Course. The Hospital for Sick Children. Toronto, Ontario, Canada. (Continuing Education).

2014

Decreasing Mislabeled Specimens in a Pediatric Intensive Care Unit Using a Modified Positive Deviance Methodology. 10th Annual Paediatric Patient Safety Symposium. Toronto, Ontario, Canada. Lundy N, McCormick A, Ames K, Kilburn J, Hyslop C, Sperling C, Davidson L, Borowitz K, O'Keefe E, McMullin L, Levin K, Petersen K, McLeish F, Teoderascu F, Martowirogo A, Peters N, Man Hay Wong J, Ahmed Y, and Floh AA. (Poster Abstract Presentation).

**Dr. Anne-Marie Guerguerian (Hospital for Sick Children)**

**Peer-reviewed Publications**

**Journal Articles**

Buompadre M, Andres K, Slater LA, Mohseni-Bod H, Branson H, **Guerguerian AM**, Laughlin S, Armstrong D, Moharir M, deVeber G, Humpl T, Honjo O, Keshavjee S, Ichord R, Pereira VM, Dlamini N. Thrombectomy for acute stroke in a child on a lung assist device: a case report, literature review, and recommendations. *NeuroInterventional Surgery*. 2015 Dec 22. Manuscript ID: neurintsurg-2015-012223. **Coauthor or Collaborator.**

de Caen AR, Maconochie IK, Aickin R, Atkins DL, Biarent D, **Guerguerian AM**, Kleinman ME, Kloeck DA, Meaney PA, Nadkarni VM, Ng KC, Nuthall G, Reis AG, Shimizu N, Tibballs J, Pintos RV; Pediatric Basic Life Support Pediatric Advanced Life Support Chapter Collaborators. Part 6: Pediatric basic life support and pediatric advanced life support: 2015 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. *Pediatrics*. 2015 Nov;136(Suppl 2):S88-S119. Epub 2015 Oct 14. No abstract available. **Coauthor or Collaborator.**

Maconochie IK, de Caen AR, Aickin R, Atkins DL, Biarent D, **Guerguerian AM**, Kleinman ME, Kloeck DA, Meaney PA, Nadkarni VM, Ng KC, Nuthall G, Reis AG, Shimizu N, Tibballs J, Pintos RV; Pediatric Basic Life Support and Pediatric Advanced Life Support Chapter Collaborators. Part 6: Pediatric basic life support and pediatric advanced life support: 2015 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. *Resuscitation*. 2015 Oct(95):e147-e168. Epub 2015 Oct 15. No abstract available. **Coauthor or Collaborator.**

de Caen AR, Maconochie IK, Aickin R, Atkins DL, Biarent D, **Guerguerian AM**, Kleinman ME, Kloeck DA, Meaney PA, Nadkarni VM, Ng KC, Nuthall G, Reis AG, Shimizu N, Tibballs J, Veliz Pintos R; Pediatric Basic Life Support and Pediatric Advanced Life Support Chapter Collaborators. Part 6: Pediatric basic life support and pediatric advanced life support: 2015 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. *Circulation*. 2015 Oct;132(16 Suppl 1):S177-203. No abstract available. **Coauthor or Collaborator.**

Wilkinson AA, Simic N, Frndova H, Taylor MJ, Chong K, Fraser D, Campbell C, Dhanani S, Kuehn S, Beauchamp MH, Farrell C, Anderson V, **Guerguerian AM**, Dennis M, Schachar R, Hutchison JS. Serum biomarkers help predict attention problems in critically ill children with traumatic brain injury. *Pediatric Critical Care Medicine*. 2015 Sep. **Coauthor or Collaborator.**

Bamaga AK, Riazi S, Amburgey K, Ong S, Halliday W, Diamandis P, **Guerguerian AM**, Dowling JJ, Yoon G. Neuromuscular conditions associated with malignant hyperthermia in paediatric patients: a 25-year retrospective study. *Neuromuscular Disorders*. 2015 Sep. **Coauthor or Collaborator.**

Andersen LW, Berg KM, Saindon BZ, Massaro JM, Raymond TT, Berg RA, Nadkarni VM, Donnino MW; American Heart Association Get With the Guidelines–Resuscitation Investigators Raymond TT, Nadkarni VM, Topjian AA, Foglia E, Sutton R, Allen E, Bembea M, Fink E, Gaies MG, **Guerguerian AM**, Parshuram C, Kleinman M, Knight LJ, Laussen PC, Sawyer T, Schexnayder SM. Time to Epinephrine and Survival After Pediatric In-Hospital Cardiac Arrest. *JAMA*. 2015 Aug 25;314(8):802-10. **Coauthor or Collaborator**.

Eytan D, Pang EW, Doesburg S, Nenadovic V, Gavrilovic B, Laussen PC, **Guerguerian AM**. Bedside functional brain imaging in critically-ill patients using high-density EEG source modeling and multi-modal sensory stimulation. *NeuroImage: Clinical*. 2015 Aug. In Press (Trainee publication, Danny Eytan MD PhD is a clinical fellow in PCCM). **Senior Responsible Author**.

Lin YL, **Guerguerian AM**, Laussen P, Trbovich P. Heuristic evaluation of a data integration and visualization software used for continuous monitoring to support intensive care: a bedside nurse's perspective. *Journal of Nursing & Care*. 2015 Jul 31. In Press (Trainee publication, Ying Ling Lin is a doctoral student in IBBME). **Coauthor or Collaborator**.

Moler FW, Silverstein FS, Holubkov R, Slomine BS, Christensen JR, Nadkarni VM, Meert KL, Clark AE, Browning B, Pemberton VL, Page K, Shankaran S, Hutchison JS, Newth CJ, Bennett KS, Berger JT, Topjian A, Pineda JA, Koch JD, Schleien CL, Dalton HJ, Ofori-Amanfo G, Goodman DM, Fink EL, McQuillen P, Zimmerman JJ, Thomas NJ, van der Jagt EW, Porter MB, Meyer MT, Harrison R, Pham N, Schwarz AJ, Nowak JE, Alten J, Wheeler DS, Bhalala US, Lidsky K, Lloyd E, Mathur M, Shah S, Wu T, Theodorou AA, Sanders RC Jr, Dean JM; THAPCA Trial Investigators. Therapeutic Hypothermia after Out-of-Hospital Cardiac Arrest in Children. *The New England Journal of Medicine*. 2015 Apr 25;372(14):1898-908. 10.1056/NEJMoa1411480. **Coauthor or Collaborator**.

Moghim S, Schudlo L, Chau T, **Guerguerian AM**. Variability in Prefrontal Hemodynamic Response during Exposure to Repeated Self-Elected Music Excerpts, a Near-Infrared Spectroscopy Study. *PLoS One*. 2015 Apr;10(4):e0122148 (Trainee publication). **Senior Responsible Author**.

Raymond TT, Stromberg D, Stigall W, Burton G, Zaritsky A; American Heart Association's Get With The Guidelines-Resuscitation Investigators. Sodium bicarbonate use during in-hospital pediatric pulseless cardiac arrest - a report from the American Heart Association Get With The Guidelines (R)-Resuscitation. *Resuscitation*. 2015 Apr. **Coauthor or Collaborator**.

Jayaram N, Spertus JA, Tang F, Berg RA, Nadkarni V, Raymond T, **Guerguerian AM**, Chan PS, for the American Heart Association Get with the Guidelines-Resuscitation Investigators. Hospital variation in survival after pediatric in-hospital cardiac arrest. *Circulation: Cardiovascular Quality and Outcomes*. 2014 June 17. **Coauthor or Collaborator**.

Moghim S, Schudlo L, Chau T, **Guerguerian AM**. Variability in prefrontal hemodynamic response during exposure to repeated self-selected music excerpts: a near-infrared spectroscopy. *PLoS One*. 2014 January. **Senior Responsible Author**.

## Book Chapters

Morrisson W, Hunt E, Dean M, **Guerguerian AM**. Research design and statistical analysis. In: Nichols D, Shaffner DH., editor(s). Rogers Textbook of Pediatric Intensive Care. 5th ed. 2015. **Senior Responsible Author.**

## Clinical Care Guidelines

Mohseni-Bod H, Larson C, Mistry N, et al. Guide to Management of Paediatric Medical Emergencies. Toronto (Canada): The Hospital for Sick Children; 2015 Jul 30. **Editor.**

## Editorials

Morrison L, DeCaen A, Bhanji F, Bigham B, Blanchard I, Brooks SC, **Guerguerian AM**, Jensen J, Travers A, Vaillancourt C, Welsford M, Woolfrey K. What is new in the 2015 AHA guidelines, what is recycled from 2010, and what is relevant for Emergency Medicine in Canada. Canadian Journal of Emergency Medicine. 2015 Nov. Submission number CJEM-15-0362. In Press. **Coauthor or Collaborator.**

Eytan D, Goodwin A, Laussen P, **Guerguerian AM**. Insights from multi-dimensional physiological signals to predict and prevent cardiac arrests. Pediatric Critical Care Medicine. 2015 Sep. In Press. **Senior Responsible Author.**

**Guerguerian AM**, Ganeshalingham A, Ta E, Laughlin S. Computed Tomography After Pediatric Out-of-Hospital Cardiac Arrest - Where To Go Next? Pediatric Critical Care Medicine. 2015 Jul;16(6):590-592. **Principal Author.**

## Manuscript - Trainee publication

Bamaga A, pediatric neuromuscular sub-specialty post-doctoral fellow. **Coauthor or Collaborator.**

## Peer-Reviewed Funding

2015 Dec - 2019 Nov **Co-Investigator.** Canadian Traumatic brain injury Research Consortium (CTRC). Canadian Institutes of Health Research (CIHR). CIHR Team Grant. PI: Hutchison J, Turgeon A, Wellington C, Gagnon I. Collaborator(s): PI: Emery C. Co-Is: Archambault P, Baker A, Barlow K, Bayley MT, Beauchamp MH, Chapman MG, Chasse M, Clarke DB, Colantonio A, Cusimano MD, Emeriaud G, English SW, Esser MJ, Fraser DD, Griesdale D, Guerguerian AM, Lacroix J, Lauzier F, Marshall SC, McCredie VA, Mcfadyen BJ, Panenka WJ, Ptito A, Reed N, Winston BW, Yeates KO, Zarychanski R, Zemek R, Zygun DA, Fox-Robichaud AE (Knowledge User). \$1,924,513.00 CAD. [Grants]

- 2015 Apr - 2020 Apr **Collaborator.** CanROC - Canadian Resuscitation Outcomes Consortium: Toward a National Resuscitation Clinical Research Network. Canadian Institutes of Health Research (CIHR). ICRH Community Development Program Grants. 343979. PI: Morrison, Laurie Jean. Collaborator(s): Principal Investigators: Morrison L, Christenson J, Stiell I. Co-Investigators: Atkinson P, Bhanji F, Brooks S, Cheskes S, Dainty N, de Caen A, Dorian P, Hutchison S, Kirkpatrick W, Lin S, Nascimento B, Osmond H, Parker J, Ramanathan K, Rizoli B, Scales C, Travers H, Vaillancourt C, Verbeek P, Wells A. \$1,499,760.00 CAD. [Grants].
- 2014 Oct - 2018 Sep **Principal Applicant.** Quantifying brain injury on computed tomography in hospitalized children: a prospective trial. Canadian Institutes of Health Research (CIHR). Open operating grant. 325310. PI: Guerguerian AM. Collaborator(s): Kulkarni A, Hutchison J, Laughlin S, Parshuram C, Raybaud C, Bigler E. \$976,825.00 CAD. [Grants]
- 2014 Jul - 2017 Jun **Co-Investigator.** A national biobank and database for patients with traumatic brain injury. Brain Canada. Technology and Platform Application. PI: Hutchison, James. Collaborator(s): Baker A, Barlow K, Clarke D, Esser M, Green R, Lacroix J, Ptito A, Walley K. \$980,000.00 CAD. [Grants]
- 2014 Jan - 2015 Jan **Co-applicant.** Brain protection by extracorporeal cardiopulmonary resuscitation in a pig model of in-hospital cardiac arrest and brain injury. Labatt Family Heart Centre. Innovation Fund. PI: Honjo, Osami. Collaborator(s): Guerguerian AM. \$24,000.00 CAD. [Grants]
- 2012 Jul - 2015 Jun **Co-Principal Investigator.** A randomized controlled trial of hybrid and norwood surgical strategies for single ventricle congenital heart disease. Heart and Stroke Foundation of Canada (HSFC). Operating grant. PI: Caldarone Christopher; Guerguerian AM. Collaborator(s): Van Arsdell G, Schwartz S, McCrindle B, Chaturvedi R, Laughlin S, Dennis M. \$228,234.00 CAD. [Grants]
- 2010 Jul - 2015 Jun **Site Investigator.** A randomized controlled trial of Therapeutic Hypothermia After Pediatric Cardiac Arrest (THAPCA). National Heart, Lung, and Blood Institute (NHLBI) (USA). PI: Moler, Frank; Dean, Mike. Collaborator(s): Guerguerian AM, Schwartz SM, THAPCA site investigators. \$21,000,000.00 USD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Sep 20 **Invited Speaker.** Interactive Cases with ethical dilemmas: What would you do? 26th Annual ELSO Conference. Atlanta, Georgia, United States. Presenter(s): Thomas J, Guerguerian AM, Capatos G. Conference dates: September 17-20, 2015.
- 2015 Sep 17 **Invited Speaker.** Quality Improvement - What I use and why. Pre-Conference Symposium - 26th Annual ELSO Conference. Atlanta, Georgia, United States. Presenter(s): Guerguerian AM, Davidson M. Conference dates: September 17-20, 2015.
- 2015 Sep 16 **Invited Lecturer.** Multimodal neuromonitoring: how much can we detect? PICS 2015 Conference. Birmingham, United Kingdom. Presenter(s): Guerguerian AM. Conference dates: September 14-16, 2015.
- 2015 Jan 31 **Invited Speaker.** Pediatric Resuscitation Guidelines and Reviews. American Heart Association/ILCOR C2015 Conference - Hyatt Regency Dallas. Dallas, Texas, United States. ILCOR Conference: January 31 - February 4, 2015 (6:30 AM - 5:00 PM).
- 2014 Nov 18 Classifying pediatric traumatic brain injury using an automated digital measurement algorithm to detect cerebral edema. Society of Neuroscience Walter E. Washington Convention Center. Washington, DC. Presenters: Eva Ta. Authors: Ta E, Laughlin S, Kulkarni A, Parshuram C, Hutchison J, Van Huyse J, Frndova H, Guerguerian AM. (Trainee Presentation).
- 2014 Nov 16 Dynamic modeling of cerebral hemodynamics in neonates after cardiac surgery. Neuroscience 2014. Washington, District of Columbia, United States. Presenters: Saba Moghimi. Authors: Moghimi S, Caldarone C, Merklinger S, Kim D, Holtby H, Schwartz S, Van Arsdell G, Guerguerian AM. (Trainee Presentation).
- 2014 Nov **Invited Participant.** The Heart & Stroke Resuscitation Summit/ILCOR Chicago Meeting - Chicago Hilton Hotel. Chicago, Illinois, United States. Official Delegate Dinner and Business Meeting: November 12, 2014 ILCOR Science Meeting: November 13-14, 2014.
- 2014 Sept 15 25th Anniversary ELSO Conference in conjunction with the AmSECT Pediatric Perfusion Conference - September 16-18, 2014. Ann Arbor, Michigan, United States. Pre-conference: Physiology of ECMO - September 15 - 16, 2014.
- 2014 May 23 **Facilitator.** Session: Pediatric Track. Report of a consensus review for mechanical support in children. International Course on Extracorporeal Membranous Oxygenation (ECMO) and Euro-Extracorporeal Life Support Organization (ELSO) 2014. Paris, France. May 21-24, 2014. Program Directors: Alain Combes, Philippe Leger, Pascal Leprince.

- 2014 May 23 **Invited Speaker.** Session: Pediatric Track. Setup and Maintenance of Extracorporeal Life Support Program. International Course on Extracorporeal Membranous Oxygenation (ECMO) and Euro-Extracorporeal Life Support Organization (ELSO) 2014. Paris, France. May 21-24, 2014. Program Directors: Alain Combes, Philippe Leger, Pascal Leprince.
- 2014 May 21 **Invited Speaker.** Session: Pediatric ECMO. Mechanical ventilation during pediatric ECMO. International Course on Extracorporeal Membranous Oxygenation (ECMO) and Euro-Extracorporeal Life Support Organization (ELSO) 2014. Paris, France. May 21-24, 2014. Program Directors: Alain Combes, Philippe Leger, Pascal Leprince.
- 2014 May 21 **Facilitator.** Session: Pediatric ECMO. International Course on Extracorporeal Membranous Oxygenation (ECMO) and Euro-Extracorporeal Life Support Organization (ELSO) 2014. Paris, France. May 21-24, 2014. Program Directors: Alain Combes, Philippe Leger, Pascal Leprince.
- 2014 Feb 27 Biomarkers in mild traumatic brain injury in children: A systematic review. The 14th Joint Scientific Congress of Japanese Society of Intensive Care Medicine (JSICM) and Korean society of Critical Care Medicine (KSCCM). Kyôto [Kyoto], Japan. Presenter(s): Ide K. Authors: Ide K, Kukreti V, Nickel C, Augustinavicius J, Hutchison J, Guerguerian AM. (Trainee Presentation).

### Provincial

- 2014 Jun 17 **Presenter.** QBlct - Quantification of Brain Injury using computed tomography. Canadian Critical Care Trials Group (CCCTG) - June 16-19, 2014. Montreal, Quebec, Canada. Presentation of abstract: Scientific Summary - traumatic brain injury.
- 2014 Apr **Invited Participant.** The Heart & Stroke Resuscitation Summit/ILCOR Meetings - Fairmont Banff Springs Hotel. Banff, Alberta, Canada. Official Delegate Dinner and Business Meeting: April 30, 2014. ILCOR Science Meeting: May 1 and May 2, 2014 (7:30 AM - 5:00 PM).
- 2014 Jan 25 **Invited Participant.** The Canadian Traumatic Brain Injury Research and Clinical Network (CAN-TBI-RCN). Lake Louise, Alberta, Canada. Workshop. January 25, 2014, Lake Louise Inn, Lake Louise, Alberta.

### Local

- 2015 Dec 3 **Invited Lecturer.** Quantifying Brain Injury on Computed Tomography in Hospitalized Children: A Prospective Trial. Department of Critical Care Medicine Research Rounds. Toronto, Ontario, Canada. Presenter(s): Guerguerian AM, LeBlanc N.
- 2015 Oct 27 **Invited Speaker.** Session: ECLS Basics: ECMO - Basic Concepts. Critical Care Canada Forum. Toronto, Ontario, Canada. October 25-28, 2015.



- 2015 Oct 27 **Moderator.** ECLS Frontiers. Critical Care Canada Forum. Toronto, Ontario, Canada. Presenter(s): Combes A, Pesenti A, Rao V, Brodie D. October 25-28, 2015.
- 2015 Oct 25 **Chair.** Session 3 - Guerguerian AM. Canadian Critical Care Trials Group (CCCTG) Fall 2015 Meeting - CRL Gallery, Peter Gilgan Centre for Research and Learning. Toronto, Ontario, Canada. October 24-25, 2015.
- 2015 Oct 5 **Speaker.** Session - Serving the Children: "Building a strong foundation". SickKids ECLS 2015 - The Future is Now! Academic Day. Toronto, Ontario, Canada. Presenter(s): Guerguerian AM.
- 2015 Oct 5 **Speaker.** Session - Protection and Recovery: "Resuscitation". SickKids ECLS 2015 - The Future is Now! Academic Day. Toronto, Ontario, Canada. Presenter(s): Guerguerian AM.
- 2015 Oct 5 **Moderator.** Session - Innovation with 3Ts: Team, Technology and Therapies. SickKids ECLS 2015 - The Future is Now! Academic Day. Toronto, Ontario, Canada. Presenter(s): Guerguerian AM. Moderators: Guerguerian AM, Kratz P.
- 2014 Nov 1 **Facilitator.** ECLS and ECCO2R. Critical Care Canada Forum. Toronto, Ontario, Canada. Presenter(s): D. Brodie, A. Pesenti, E. Fan, B. Kavanagh.
- 2014 Oct 31 **Invited Speaker.** Communication - Lessons learned from an audit program. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 30 **Invited Speaker.** How we will monitor children's brains - Practice in the next decade. Critical Care Canada Forum. Toronto, Ontario, Canada. Pediatric ICU Emerging Approaches.
- 2014 Oct 29 **Facilitator.** Hot topics for severe ARDS patients. Critical Care Canada Forum and the University Health Network ECLS Program. Toronto, Ontario, Canada. Presenter(s): E. Fan, J. Downar, A. Pesenti.
- 2014 Oct 28 **Invited Speaker.** Introduction- The history of extracorporeal life support and extracorporeal membrane oxygenation. Critical Care Canada Forum and the Hospital for Sick Children. Toronto, Ontario, Canada. Paediatric Specialist ECMO Course- Preconference two day course opening lecture.
- 2014 Jun 10 Clinical outcomes in Children exposed to large-volume blood transfusion during extracorporeal membrane oxygenation support. Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada. Presenter(s): Eva Fernandez Diaz. Oral Abstract Presentation. (Trainee Presentation).

- 2014 Jun 10 Costs associated with Extracorporeal Membrane Oxygenation: A Systematic Review. Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada. Presenter(s): Tanya Di Genova. Poster Abstract. (Trainee Presentation).
- 2014 Jun 10 The Association Between Serum Biomarkers and Functional Outcome in Children with Traumatic Brain Injury. Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada. Presenter(s): Kentaro Ide. Poster Abstract. (Trainee Presentation).
- 2014 Jun 10 Heuristic Assessment of Software to Support Multimodal Monitoring. Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada. Presenter(s): Ying Ling Lin. Poster Abstract. (Trainee Presentation).
- 2014 June 10 A systematic review of near-infrared spectroscopy for cerebral oximetry in children: an engineering perspective. Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada. Presenter(s): Saba Moghimi. Poster Abstract. (Trainee Presentation).
- 2014 Jun 10 Dynamic modeling of cerebral hemodynamics in neonates after cardiac surgery. Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada. Presenter(s): Saba Moghimi. Poster Abstract. (Trainee Presentation).
- 2014 June 10 Near-infrared Spectroscopy in Paediatrics: A Systematic Review Clinical Perspective. Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada. Presenter(s): Nitesh Singhal. Poster Abstract. Authors: Nitesh Singhal, Saba Moghimi, Hargen Zhang, Anne- Marie Guerguerian. (Trainee Presentation).
- 2014 Jun 10 Implementation of a Portable CT scanner in an ICU setting-Quality Improvement project. Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada. Presenter(s): Nitesh Singhal. Poster Abstract. Authors-Critical Care: C Lau, N Singhal, M Eini, A Sehgal, V Kukreti, L Mak, C Gignac, J Guimond, K Goerz, J Macartney, A Stanisic, S Joseph, C Hyslop, E Niles, AM Guerguerian. Diagnostic Imaging: S Laughlin, G BenDavid, C Billanti, N Padfield, D Karban, E Charkot, C Raybaud, M Shroff. (Trainee Presentation).

- 2014 Jun 10 Using Cerebral Edema to Predict Outcome of Children with Traumatic Brain Injuries. Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada. Presenter(s): Eva Ta. Poster Abstract. (Trainee Presentation).
- 2014 Jun 10 **Invited Speaker.** Quality, Science and Extracorporeal Membranous Oxygenation (ECMO). Interdepartmental Division of Critical Care Medicine, University of Toronto Critical Care Medicine Residents' Day Program. Toronto, Ontario, Canada.
- 2014 May 15 SickKids Centre for Brain & Mental Health. Toronto, Ontario, Canada. 10th Annual Paediatric Patient Safety Symposium - Risky Business, May 15-16, 2014, Peter Gilgan Centre for Research and Learning, 686 Bay Street, Toronto, Ontario, Canada.
- 2014 Apr 29 **Facilitator.** Research in Motion (RiM) 2014 - Li Ka Shing Knowledge Institute, St. Michael's Hospital, University of Toronto, Faculty of Medicine. Toronto, Ontario, Canada. April 28-29, 2014.

**Dr. Tilman Humpl (Hospital for Sick Children)**

**Peer-reviewed Publications**

**Journal Articles**

Okumura K, **Humpl T**, Dragulescu A, Mertens L, Friedberg MK. Longitudinal assessment of right ventricular myocardial strain in relation to transplant-free survival in children with idiopathic pulmonary hypertension. J Am Soc Echocardiogr. 2014 Dec 1. 27(12):1344-51. **Coauthor or Collaborator**

Conway J, St Louis J, Morales DL, Law S, Tjossem C, **Humpl T**. Delineating Survival Outcomes in Children; 10 Kg Bridged to Transplant or Recovery With the Berlin Heart EXCOR Ventricular Assist Device. JACC Heart Fail. 2014 Nov 11. **Senior Responsible Author**

Woerner C, Cutz E, Yoo SJ, Grasemann H, **Humpl T**. Pulmonary veno-occlusive disease in childhood. Chest. 2014 Feb 6. **Senior Responsible Author**

**Invited Lectures and Presentations**

**International**

2015 Feb 22 **Invited Participant.** ECMO and the Advanced Therapies for Respiratory Failure. The George Washington University. Washington DC, District of Columbia, United States.

2014 Dec **Author.** Pediatric Ventricular Assist Device(VAD) Management By Specialized Core Nursing Team: SICKKIDS Experience. PCICS 10th International Conference. Toronto, Florida, United States. Presenter(s): J. Coronado, S. Furness, L. Graydon, C. St. George-Hyslop, N. Kettle, A. Maurich, N. Wu, & T. Humpl.

2014 Oct **Presenter.** Pulmonary Hypertension in Wilms Tumor. International Society of Paediatric Oncology. Toronto, Ontario, Canada. Presenter(s): Meera Rayar, Glenn Taylor, Tilman Humpl, Lesleigh Abbott and Robert Grant.

2014 Sept 13 **Moderator.** MCS. Pediatric Heart Failure Summit. Cincinnati, Ohio, United States.

2014 July **Invited Speaker.** Indications for VAD in pediatrics. 4th Scientific Meeting of the Work Society for Pediatric and Congenital Heart Surgery. San Paulo, São Paulo, Brazil.

2014 May 21 Acute Vasodilator Response in Paediatric Pulmonary Arterial Hypertension: current clinical practice from the TOPP-registry. 48th Annual Meeting of the Association for European Paediatric and Congenital Cardiology (AEPC). Helsinki, Not Required, Finland. Presenter(s): Douwes J.M, Barst R.J, Humpl T, Beghetti M, Bonnet D, Schulze-Neick I, Ivy D.D, Berger R.M.F.

- 2014 May **Invited Speaker.** Pulmonary hypertension in adolescents. 2014 Annual Congress of the Hungarian Society of Cardiology. Balatonfured, Hungary.
- 2014 May **Invited Speaker.** Positive effects of steroids on adverse events n VAD patients. EPUG Meeting. Duisburg, Germany.
- 2014 Mar **Invited Speaker.** Genetics of Pulmonary Hypertension. 7th International Neonatal & Childhood Pulmonary Vascular Disease Conference. San Francisco, California, United States.
- 2014 Mar **Invited Speaker.** Similarities and Differences in Pediatric Pulmonary Hypertension Epidemiology Insights from Registries. 7th International Neonatal & Childhood Pulmonary Vascular Disease Conference. San Francisco, California, United States.

### Local

- 2015 Oct 26 **Presenter.** Canadian Pediatric Pulmonary Arterial Hypertension (PAH) Registry. 2015 Canadian Cardiovascular congress. Toronto, Ontario, Canada. Presenter(s): Humpl T, Adatia I, Vohies E, Dancea A, Hosking M, Warren A, Pepelassi D, Lee S, Kakadekar A, Houde C, Fournier A.
- 2015 Oct 26 **Invited Speaker.** Eisenmenger's Syndrome. 2015 Canadian Cardiovascular congress. Toronto, Ontario, Canada. Presenter(s): Humpl T.
- 2015 Oct 5 **Invited Lecturer.** Long term ventricle assist device. 25th anniversary of the ECMO program - Academic symposium. Toronto, Ontario, Canada. Presenter(s): Dr. Tilman Humpl. Video Presentation.
- 2014 Jun 8 **Invited Speaker.** Myocarditis - VAD or ECMO? The 6th Cardiac Symposium: Non-Structural heart Disease. Toronto, Ontario, Canada.
- 2014 Jun 5 **Chair.** The Pressure Loaded RV. The 3rd Toronto RV Symposium. Toronto, Ontario, Canada.
- 2014 Jun 5 **Invited Speaker.** How is Eisenmenger RV different? The 3rd Toronto RV Symposium. Toronto, Ontario, Canada.

**Dr. Jamie Hutchison ( Hospital for Sick Children)**

**Peer-reviewed Publications**

**Journal Articles**

Hahn, C, et al. Strategies to Maximize Enrollment in a Prospective Study of Comatose Children in the Pediatric Intensive Care Unit. *Pediatric Critical Care Medicine*. 2015 Nov 3. In Press. **Coauthor or Collaborator.**

Menon K, McNally J, Dayre C, Lawson K, Ramsay T, Wong H, the Canadian Critical Care Trials Group STRIPES Investigators. A Cohort Study of Pediatric Shock: Frequency of Corticosteroid Use and Association with Clinical Outcomes. **Coauthor or Collaborator.**

**Hutchison JS**, Foster D. Shock. 2015 Nov;44(5):402-409. Eratum: **Coauthor or Collaborator.**

Tijssen JA, Prince DK, Morrison LJ, Atkins DL, Austin MA, Berg R, Brown SP, Christenson J, Egan D, Fedor PJ, Fink EL, Meckler GD, Osmond MH, Sims KA, **Hutchison JS**, Resuscitation Outcomes Consortium. Time on the scene and interventions are associated with improved survival in pediatric out-of-hospital cardiac arrest. *Resuscitation*. 2015 Sep 1;94:1-7. **Senior Responsible Author.**

Sutton RM, Case E, Brown SP, Atkins DL, Nadkarni VM, Kaltman J, Callaway C, Idris A, Nichol G, **Hutchison JC**, Drennan IR, Austin M, Daya M, Cheskes S, Nuttall J, Herren H, Christenson J, Andrusiek D, Vaillancourt C, Menegazzi JJ, Rea TD, Berg RA, ROC Investigators. A Quantitative Analysis of Out-of-Hospital Pediatric and Adolescent Resuscitation Quality--A Report from the ROC Epistery-Cardiac Arrest. *Resuscitation*. 2015 Aug 1;93:150-7. **Coauthor or Collaborator.**

Parshuram CS, Dryden-Palmer K, Farrell C, Gottesman R, Gray M, **Hutchison JS**, Helfaer M, Hunt E, Joffe A, Lacroix J, Nadkarni V, Parkin P, Wensley D, Willan AR, Canadian Critical Care Trials Group. Evaluating processes of care and outcomes of children in hospital (EPOCH): study protocol for a randomized controlled trial. *Trials*. 2015 Jun 2;16(245):2-12. **Coauthor or Collaborator.**

Moler FW, Silverstein FS, Holubkov R, Slomine BS, Christensen JR, Nadkarni VM, Meert KL, Clark AE, Browning B, Pemberton VL, Page K, Shankaran S, **Hutchison JS**, Newth CJ, Bennett KS, Berger JT, Topjian A, Pineda JA, Koch JD, Schleien CL, Dalton HJ, Ofori-Amanfo G, Goodman DM, Fink EL, McQuillen P, Zimmerman JJ, Thomas NJ, van der Jagt EW, Porter MB, Meyer MT, Harrison R, Pham N, Schwarz AJ, Nowak JE, Alten J, Wheeler DS, Bhalala US, Lidsky K, Lloyd E, Mathur M, Shah S, Wu T, Theodorou AA, Sanders RC Jr, Dean JM, THAPCA Trial Investigators. Therapeutic Hypothermia after Out-of-Hospital Cardiac Arrest in Children. *N Engl J Med*. 2015 May 14;372(20):1898-908. **Coauthor or Collaborator.**

Idris AH, Guffey D, Pepe PE, Brown SP, Brooks SC, Callaway CW, Christenson J, Davis DP, Daya MR, Gray R, Kudenchuk PJ, Larsen J, Lin S, Menegazzi JJ, Sheehan K, Sopko G, Stiell I, Nichol G, Aufderheide TP, Resuscitation Outcomes Consortium Investigators. Chest Compression Rates and Survival Following Out-of-Hospital Cardiac Arrest. *Crit Care Med*. 2015 Apr 1;43(4):840-8. **Coauthor or Collaborator.**

Stiell IG, Brown SP, Nichol G, Cheskes S, Vaillancourt C, Callaway CW, Morrison LJ, Christenson J, Aufderheide TP, Davis DP, Free C, Hostler D, Stouffer JA, Idris AH, Resuscitation Outcomes Consortium Investigators. What is the optimal chest compression depth during out-of-hospital cardiac arrest resuscitation of adult patients? *Circulation*. 2014 Nov 25;130(22):1962-70. **Coauthor or Collaborator**.

Rennick JE, Dougherty G, Chambers C, Stremmler R, Childerhose JE, Stack DM, Harrison D, Campbell-Yeo M, Dryden-Palmer K, Zhang X, **Hutchison JS**. Children's psychological and behavioral responses following pediatric intensive care unit hospitalization: the caring intensively study. *BMC Pediatr*. 2014 Oct 26.14:276. **Senior Responsible Author**

Payne ET, Zhao XY, Frndova H, McBain K, Sharma R, **Hutchison JS**. Seizure burden is independently associated with short term outcome in critically ill children. *Brain*. 2014 May. 137(5):1429-1438. **Senior Responsible Author**

Choong K, Foster G, Fraser DD, **Hutchison JS**, Joffe AR, Jouvet PA, Menon K, Pullenayegum E, Ward RE; conducted on behalf of the Canadian Critical Care Trials Group. Acute Rehabilitation Practices in Critically Ill Children: A Multicenter Study. *Pediatr Crit Care Med*. 2014 Apr 25. **Coauthor or Collaborator**

Nenadovic V, Perez Velazquez JL, **Hutchison JS**. Phase synchronization in electroencephalographic recordings prognosticates outcome in paediatric coma. *PLoS One*. 2014 Jan 1. 9(4):e94942. **Senior Responsible Author**.

## **Abstracts**

Sugiura A, Salewski R, Wang F, Granton J, Taylor P, **Hutchison JS**. Kallikrein-1 as a potential biomarker of global cerebral ischemia and neuroprotection in mice. 2014 Feb. 7th World Congress of Pediatric Intensive and Critical Care. 2014 May. **Senior Responsible Author**

Choong K, Foster G, Fraser DD, **Hutchison JS**, Joffe AR, Jouvet PA, Menon K, Pullenayegum E, Ward RE; conducted on behalf of the Canadian Critical Care Trials Group. Acute Rehabilitation Practices in Critically Ill Children: A Multicenter Study. 2014 Feb. 7th World Congress on Pediatric Intensive and Critical Care. 2014 May. **Coauthor or Collaborator**

Ide K, Frndova H, Craig-Barnes H, Post M, **Hutchison JS**. The Association Between Biomarkers and Functional Outcome in Children with Traumatic Brain Injury. 2014 Feb. 7th World Congress on Pediatric Intensive and Critical Care. 2014 May. **Senior Responsible Author**

Ide K, Kukreti V, Nickel C, Augstinavicius J, **Hutchison JS**, Guerguerian, AM. Biomarkers in mild traumatic brain injury: a systematic review. 2014 Feb. 7th World Congress on Pediatric Intensive and Critical Care. 2014 May. **Coauthor or Collaborator**

Wilkinson A, Simic N, Solana M, Hussain S, VanHuyse J, Guerguerian AM, Raybaud C, Laughlin S, Hahn C, Dennis M, Choong K, Fraser D, Campbell C, Doherty D, Dhanani S, Lacroix J, **Hutchison JS**, et al. Relationship of diffuse axonal injury in the frontal lobes to ratings of inattention and hyperactivity following pediatric brain injury. 2014 Feb. 7th World Congress on Pediatric Intensive and Critical Care. 2014 May. **Coauthor or Collaborator**

Tijssen JA, Prince D, Atkins DL, Austin M, Berg RA, Brown S, Christenson J, Egan DA, Fedor PJ, Fink EL, Meckler GD, Morrison LJ, Osmond M, Sims K, **Hutchison JS**. Critical times in the pre-hospital care of pediatric patients with out-of-hospital cardiac arrest. 2014 Feb. 7th World Congress on Pediatric Intensive and Critical Care. 2014 May. **Senior Responsible Author**

Simic N, Wilkinson A, Solana Garcia M, Nenadovic V, Hussain S, Van Huyse J, Guerguerian AM, Raybaud C, Hahn C, Dennis M, Choong K, Fraser D, Campbell C, Doherty D, Dhanani S, **Hutchison JS**, et al. Surviving traumatic brain injury: longterm consequences. 2014 Feb. 7th World Congress on Pediatric Intensive and Critical Care. 2014 May. **Senior Responsible Author**

## Editorials

**Hutchison JS**. Research in Pediatric Intensive Care. *Pediatric Critical Care Medicine*. 2015 Nov. In Press. **Senior Responsible Author**.

## Peer-Reviewed Fundings

- 2015 Jul - 2018 Jun **Principal Investigator**. A national biobank and database for patients with traumatic brain injury. Brain Canada. Brain Canada Technology and Platform Application. Collaborator(s): Baker, Andrew; Barlow, Karen; Clarke, David; Esser, Michael; Green, Robin; Lacroix, Jacques; Pfito, Alain; Walley, Keith. \$3,000,000.00 CAD. [Grants]
- 2015 Mar - 2015 Dec **Principal Applicant**. Pilot study for the SQUEEZE Trial to determine whether septic shock reversal is quicker in pediatric patients randomized to an early goal directed fluid sparing strategy vs. usual care. Hamilton Health Sciences New Investigator Fund. Collaborator(s): Schonfield, Deborah; Boutis, Kathy; Parker, Melissa. \$100,000.00 CAD. [Grants]
- 2015 Jan - 2019 Dec **Co-Investigator**. Canadian Institutes of Health Research (CIHR). PI: Karen Burns. Collaborator(s): Karen Choong, Deborah Cook, Robert Fowler, Elaine Gilfoyle, Francois Lamontagne, John Marshall, Lauralyn McIntyre, Maureen Meade, John Muscadere, Andrew Seely, Tasnim Sinuff, Alexis Turgeon, Richard Hall, Margaret Herridge, Marissa Tucci. \$3,744,942.00 CAD. [Grants]
- 2014 Oct - 2018 Sep **Co-Investigator**. Quantifying brain injury on computed tomography in hospitalized children: a prospective trial. Canadian Institutes of Health Research (CIHR). Open operating grant. 325310. PI: Guerguerian, Anne-Marie. \$600,000 CAD. [Grants]
- 2013 Jul - 2018 Jun **Co-Investigator**. +Approaches and decisions for Acute pediatric TBI (ADAPT). National Institutes of Health (NIH). PI: Bell, Michael. \$16,147,544.00 CAD. [Grants]
- 2013 Jan - 2018 Mar **Site Investigator**. ABC PICU Study - Age of Blood in Children in Pediatric Intensive Care Units Inclusion - Exclusion Criteria. Canadian Institutes of Health Research (CIHR). PI: Tucci, Marissa. [Grants]



- 2012 Mar - 2015 Mar **Co-Investigator.** Inhibitory control in children with acquired traumatic brain injury (ATBI): An outcome prediction model using biomarkers. Ontario Neurotrauma Foundation (ONF). 2012 ABI Studentship. PI: Wilkinson, Amy. \$69,000.00 CAD. [Grants]
- 2010 Jan - 2016 Dec **Co-Investigator.** From Bench to Bedside to Curbside. Clinical Research Consortium to improve Resuscitation Outcomes. Heart and Stroke Foundation of Canada (HSFC). PI: Morrison, Laurie. \$15,000,000.00 CAD. [Grants]
- 2010 - 2014 **Co-Investigator.** The Bedside Paediatric Early Warning System: a cluster RCT of portality and processes of care. Canadian Institutes of Health Research (CIHR). PI: Parshuram, Christopher. \$3,300,000.00 CAD
- 2009 Jan - 2016 Dec **Co-Investigator.** From Bench to Bedside to Curbside. Clinical Research Consortium to improve Resuscitation Outcomes. Canadian Institutes of Health Research (CIHR). Operating grant. PI: Morrison, Laurie. \$1,057,000.00 CAD. [Grants]
- 2009 - 2015 **Co-applicant.** Therapeutic Hypothermia in Pediatric Cardiac Arrest. National Institutes of Health. Collaborator(s): Frank Moler, Jamie Hutchison. \$3,600,000.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Oct 13 **Panel Member.** Session III - Safe Common Clinical Data Sharing (Methodology panel discussion: Menon, Manley, Hill, Hicks, McAuliffe, Bertiloni, Hutchison. International Traumatic Brain Injury (INTBIR). Brussels, Belgium. Presenter(s): Menon, Manley, Hill, Hicks, McAuliffe, Bertiloni, Hutchison.
- 2014 Dec 13 **Invited Speaker.** Cooling After Cardiac Arrest: Should We? The Pediatric Cardiac Intensive Care Society (PCICS). Miami, Florida, United States.
- 2014 Nov 18 **Collaborator.** Classifying Pediatric Traumatic Brain Injury Using an Automated Digital Measurement Algorithm to Detect Cerebral Edema. Society of Neuroscience Conference. Washington, District of Columbia, United States. Presenter(s): Eva Ta. (Trainee Presentation).
- 2014 Jun 28 **Panel Member.** Session II: Fluid Biomarkers - Protocols and Resources for InTBIR. 3rd International Traumatic Brain Injury Research (InTBIR) Meeting. San Francisco, California, United States. Presenter(s): Ramon Diaz-Arrastia, Jamie Hutchison, Alexis Turgeon, Andreas Jeromin.

- 2014 May 7 **Judge.** Poster Viewing and Exhibition. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey.
- 2014 May 7 **Chair.** Coma & Challenge. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey. Presenter(s): Hutchison Jamie, Figaji.
- 2014 May 6 **Chair.** Track the Brain Pain & Outcomes. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey. Presenter(s): Hutchison Jamie, Beca John.
- 2014 May 5 **Judge.** Poster Viewing and Exhibition. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey.
- 2014 May 5 **Invited Speaker.** The Good, the Bad, and the Ugly of Clinical Trials in Pediatric Neurocritical Care. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey.
- 2014 May 5 **Invited Speaker.** Cooling is good, Cooling is bad. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey.
- 2014 May **Presenter.** Kallikrein-1 as a potential biomarker of global cerebral ischemia and neuroprotection in mice. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey. Presenter(s): Sugiura, A, Salewski, R, Wang, F, Granton, J, Taylor, P, Hutchison, J. (Trainee Presentation).
- 2014 May **Presenter.** Acute Rehabilitation Practices in Critically Ill Children: A Multicenter Study. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey. Presenter(s): Choong, K, Fraser, D, Hutchison, J, et al.
- 2014 May **Presenter.** The Association Between Biomarkers and Functional Outcome in Children with Traumatic Brain Injury. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey. Presenter(s): Ide K, Frndova H, Craig-Barnes H, Post M, Hutchison J. (Trainee Presentation).
- 2014 May **Presenter.** Biomarkers in mild traumatic brain injury: a systematic review. 7th World Congress on Pediatric Intensive and Critical Care May 2014. Istanbul, Turkey. Presenter(s): Ide, Kentaro; Kukreti, Vinay; Nickel, Cheri; Augstinavicius, Jura; Hutchison, Jamie; Guerguerian, Anne-Marie. (Trainee Presentation).
- 2014 May **Presenter.** Critical times in the pre-hospital care of pediatric patients with out-of-hospital cardiac arrest. 7th World Congress on Pediatric Intensive and Critical Care May 2014. Istanbul, Turkey. Presenter(s): J.A. Tijssen, D. Prince, D.L. Atkins, M. Austin, R.A. Berg, S. Brown, J. Christenson, D.A. Egan, P.J. Fedor, E.L. Fink, G.D. Meckler, L.J. Morrison, M. Osmond, K. Sims, J.S. Hutchison. (Trainee Presentation).

2014 May **Presenter.** Surviving traumatic brain injury: longterm consequences. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey. Presenter(s): Simic N, Wilkinson A, Solana Garcia M, Nenadovic V, Hussain S, Van Huyse, J, Guerguerian AM, Raybaud C, Hahn C, Dennis M, Choong K, Fraser D, Campbell C, Doherty D, Dhanani S, Hutchison J, et al. (Trainee Presentation).

2014 May **Presenter.** Relationship of diffuse axonal injury in the frontal lobes to ratings of inattention and hyperactivity following pediatric brain injury. 7th World Congress on Pediatric Intensive and Critical Care May 2014. Istanbul, Turkey. Presenter(s): Wilkinson A, Simic N, Solana M, Hussain S, VanHuyse J, Guerguerian AM, Raybaud C, Laughlin S, Hahn C, Dennis M, Choong K, Fraser D, Campbell C, Doherty D, Dhanani S, Lacroix J, Hutchison J, et al  
D Doherty, S Dhanani, J Lacroix, et al. (Trainee Presentation).

### Provincial

2015 Jan 28 **Chair.** Session Chair. Canadian Critical Care Trials Group (CCCTG). Lake Louise, Alberta, Canada. Presenter(s): Karam, Oliver; Brochard, Laurent; Bosma, karen; Burns, Karen.

2015 Jan 26 **Invited Speaker.** PREDICT TBI - Predicting Recovery in Children with Traumatic Brain Injury. Canadian Critical Care Trials Group (CCCTG). Lake Louise, Alberta, Canada. Presenter(s): Hutchison, Jamie.

2015 Jan 25 **Invited Speaker.** A National Biobank and database for patients with traumatic brain injury. Canadian Critical Care Translation Biology Group (CCCTBG). Lake Louise, Alberta, Canada. Presenter(s): Hutchison, Jamie.

2014 Jan 28 **Invited Speaker.** Canadian translational biology platform for critically ill patients with traumatic brain injury (Update of project underway). Canadian Critical Care Trials Group (CCCTG). Lake Louise, Alberta, Canada. Presenter(s): Hutchison Jamie, Turgeon Alexis.

### National

2014 Apr 4 **Invited Speaker.** A paradigm shift in the care of patients with brain injury. Research Seminar, Research Institute, Children's Hospital of Eastern Ontario (CHEO). Ottawa, Ontario, Canada.

## Local

- 2015 Mar 27 **Invited Speaker.** Maureen Dennis Symposium, The Hospital for Sick Children. Toronto, Ontario, Canada. Presenter(s): Hutchison, Jamie.
- 2015 Nov 15 **Invited Speaker.** Trauma transport. 27th Pediatric Anesthesia Conference. Toronto, Ontario, Canada. Presenter(s): Hutchison, Jamie.
- 2014 Oct 31 **Invited Speaker.** Protecting the Pediatric Brain. Critical Care Canada forum (CCCF). Toronto, Ontario, Canada.
- 2014 Oct 31 **Moderator.** Antibiotics & Influenza. Critical Care Canada forum (CCCF). Toronto, Ontario, Canada.
- 2014 Oct 29 **Invited Speaker.** Improving Outcomes following TBI. SickKids Alumni Meeting. Toronto, Ontario, Canada.

**Dr. Brian Kavanagh (Hospital for Sick Children)**

**Peer-reviewed Publications**

**Journal Articles**

Cereda M, Xin Y, Hamedani H, Clapp J, Kadlecsek S, Meeder N, Zeng J, Profka H, Kadlecsek S, **Kavanagh BP**, Rizi R. Mild loss of lung aeration augments stretch in healthy lung regions. *Journal of Applied Physiology*. 2015 Dec. In Press. **Coauthor or Collaborator**.

Goligher EC, **Kavanagh BP**, Rubenfeld GD, Ferguson ND. Physiologic responsiveness should guide entry into randomized controlled trials. *American Journal of Respiratory and Critical Care Medicine*. 2015 Dec;192(12):1416-9. **Coauthor or Collaborator**.

Goligher EC, Fan E, Herridge MS, Murray A, Vorona S, Brace D, Rittayamai, Lanys A, Tomlinson G, Singh JM, Bolz SS, Rubenfeld GD, **Kavanagh BP**, Brochard L, Ferguson ND. Evolution of diaphragm thickness during mechanical ventilation: impact of inspiratory effort. *American Journal of Respiratory and Critical Care Medicine*. 2015 Nov;192(9):1080-8. **Coauthor or Collaborator**.

Tosoni A, LaRotta G, Breatnach C, Anand V, Foreman C, Davidson L, Redington AN, **Kavanagh BP**. Oxygen delivery and consumption are independent: evidence from venoarterial extracorporeal membrane oxygenation in resuscitated children. *American Journal of Respiratory and Critical Care Medicine*. 2015 Sep;192(6):765-7. **Senior Responsible Author**.

**Kavanagh BP**, Otulakowski G. Anesthetics and lung injury: old research, new insights. *Anesthesiology*. 2015 Aug;123(2):251-2. **Principal Author**.

Goligher EC, Laghi F, Detsky ME, Farias P, Murray A, Brace D, Brochard L, Bolz SS, **Rubenfeld GD, Kavanagh BP**, Ferguson ND. Measuring diaphragm thickness with ultrasound in mechanically ventilated patients: feasibility, reproducibility and validity. *Intensive Care Medicine*. 2015 Apr;41(4):642-9. **Coauthor or Collaborator**.

Yildiz C, Palaniyar N, Otulakowski G, Khan MA, Post M, Kuebler, Tanswell K, Belcastro R, Masood A, Engelberts D, **Kavanagh BP**. Mechanical ventilation W induces neutrophil extracellular trap formation. *Anesthesiology*. 2015 Apr;122(4):864-75. **Senior Responsible Author**.

**Kavanagh BP**, Suffredini AF. Management of pediatric septic shock: progress through applied insight. *American Journal of Respiratory and Critical Care Medicine*. 2015 Feb;191(3):247-8. **Principal Author**.

Masterson C, Otulakowski G, **Kavanagh BP**. Hypercapnia: clinical relevance and mechanisms of action. *Current Opinion in Critical Care*. 2015 Feb;21(1):7-12. **Senior Responsible Author**.

Yoshida T, Roldan R, Beraldo MA, Torsani V, Gomes S, deSantis RR, Costa ELV, Tucci MR, **Kavanagh BP**, Amato MBP. Spontaneous effort during mechanical ventilation - maximal injury with less PEEP. *Critical Care Medicine*. 2015. In Press. **Coauthor or Collaborator**.

- Downar J, Sibbald RW, Bailey TM, **Kavanagh BP**. Withdrawal and withholding treatment in Canada: implications of the Supreme Court of Canada's decision in the Rasouli case. *CMAJ*. 2014 November. 186(16):E622-626. **Senior Responsible Author**
- Otulakowski G, Engelberts D, Gusarova GA, Bhattacharya J, Post M, **Kavanagh BP**. Hypercapnia attenuates ventilator induced lung injury via a disintegrin and metalloprotease-17. *Journal of Physiology*. 2014 October. 592:4507-21. **Senior Responsible Author**
- Jaecklin T, Duerr J, Huang H, Rafii M, Bear CE, Ratjen F, Pencharz PB, **Kavanagh BP**, Mall MA, Grasemann H. Lung arginase expression and activity is increased in cystic fibrosis mouse models. *Journal of Applied Physiology*. 2014 August. 117(3):248-8. **Coauthor or Collaborator**
- Goldenberg NM, Steinberg BE, Lee WL, Wijeyesundera DN, **Kavanagh BP**. Lung protective ventilation in the operating room - time to implement? *Anesthesiology*. 2014 July. 121(1):184-8. **Senior Responsible Author**
- Goligher EC, **Kavanagh BP**, Rubenfeld GD, Adhikari NK, Pinto R, Fan E, Brochard L, Granton J, Mercat A, Marie Richard JC, Chretien JM, Jones GL, Cook DJ, Stewart TE, Slutsky AS, Meade MO, Ferguson ND. Oxygenation response to positive end-expiratory pressure predicts mortality in acute respiratory distress syndrome. A secondary analysis of the LOVS and ExPress trials. *American Journal of Respiratory and Critical Care Medicine*. 2014 July. 190(1):70-6. **Coauthor or Collaborator**
- McNamara P, Engelberts D, Finelli M, Adeli K, **Kavanagh BP**. Vasopressin improves survival compared to epinephrine in a neonatal model of asphyxial cardiac arrest. *Pediatric Research*. 2014 June. 738-748. **Senior Responsible Author**
- Anand V, Scales DC, Parshuram CS, **Kavanagh BP**. Registration and design alterations of clinical trials in critical care: a cross-sectional observational study. *Intensive Care Medicine*. 2014 May. 40(5):700-22. **Senior Responsible Author**
- Nurok M, **Kavanagh BP**. Problems with protocols - Hidden threats to effective use. 2014. **Senior Responsible Author**
- Goligher EC, Murray A, Fan E, Tomlinson G, Rubenfeld GD, **Kavanagh BP**, Singh JM, Herridge MS, Ferguson ND. Time course and determinants of diaphragmatic atrophy during mechanical ventilation. 2014. **Coauthor or Collaborator**
- Yildiz C, Palaniyar N, Otulakowski G, Post M, Kuebler W, Tanswell AK, Belcastro R, Masood A, **Kavanagh BP**. Mechanical ventilation induces neutrophil extracellular trap formation. *Anesthesiology*. 2014. **Senior Responsible Author**
- Tosoni A, LaRotta G, Breatnach C, Anand V, Foreman C, Davidson L, Redington AN, **Kavanagh BP**. Changing O2 delivery does not alter O2 consumption in critically ill children. 2014. **Senior Responsible Author**

## Book Chapters

Curley G, **Kavanagh BP**, Laffey JG. Hypocapnia and Hypercapnia. In: VC Broaddus, RJ Mason, JD Ernst, TE King Jr, SC Lazarus, JF Murray, JA Nadel, AS Slutsky & MB Gotway, editor(s). Murray and Nadel's Textbook of Respiratory Medicine. 6th Edition. 21. Philadelphia (United States): Saunders-Elsevier; 2016. p. 1527-1546. **Coauthor or Collaborator**

Contreras M, Laffey JG, **Kavanagh BP**. Mechanical Ventilation, Permissive Hypercapnia. In: Papadakos PJ, Gestring M, editor(s). Encyclopedia of Trauma Care. Heidelberg (Germany): Springer-Verlag; 2015. In Press. **Senior Responsible Author**.

**Kavanagh BP**, Laffey JG. Hypercapnia. In: Webb, Angus, Finfer, Gattinoni & Singer, editor(s). Oxford Textbook of Critical Care. 2nd Edition. Oxford University Press; 2015. In Press. **Principal Author**.

Grasso F, **Kavanagh BP**. Negative-Pressure Ventilation: Clinical Applications. In: Rimensberger PC, editor(s). Pediatric and Neonatal Mechanical Ventilation. (Germany): Springer-Verlag; 2015. p. 589-593. **Senior Responsible Author**.

Grasso F, **Kavanagh BP**. Negative-Pressure Ventilation: Physiological Aspects. In: Rimensberger PC, editor(s). Pediatric and Neonatal Mechanical Ventilation. (Germany): Springer-Verlag; 2015. p. 238-243. **Senior Responsible Author**.

Jaecklin T, **Kavanagh BP**. Ventilator-Associated Lung Injury in the PICU. In: Rimensberger PC, editor(s). Pediatric and Neonatal Mechanical Ventilation. (Germany): Springer-Verlag; 2015. p. 927-945. **Senior Responsible Author**.

Kornecki A, **Kavanagh BP**. Patient-Ventilator Interactions. In: Rimensberger PC, editor(s). Pediatric and Neonatal Mechanical Ventilation. (Germany): Springer-Verlag; 2015. **Senior Responsible Author**.

Hassett P, Laffey JG, **Kavanagh BP**. Hypercapnia. In: Rimensberger PC, editor(s). Pediatric and Neonatal Mechanical Ventilation. (Germany): Springer-Verlag; 2015. p. 727-742. **Senior Responsible Author**.

**Kavanagh BP**, Hedenstierna G. Respiratory Physiology and Pathophysiology. In: RD Miller, NH Cohen, LI Eriksson, LA Fleisher, JP Weiner-Kronish & WL Young, editor(s). Miller's Anesthesia. 8th Edition. Philadelphia (United States): Saunders-Elsevier; 2015. p. 444-472. **Principal Author**.

## Editorials

Cereda M, **Kavanagh BP**. Compartmentalization of lung injury - Atelectasis vs. overstretch. Critical Care Medicine. 2014 January. 42(1):223-4. **Senior Responsible Author**

## Letters

Goldenberg NM, Steinberg BE, **Kavanagh BP**. Reply to comment on “Lung-protective ventilation in the operating room: time to implement?”. *Anesthesiology*. 2015 Feb;122(2):473-4. **Senior Responsible Author**

## Letters to Editor

Goligher EC, Laghi F, Detsky ME, Farias P, Murray A, Brace D, Brochard LJ, Bolz SS, Rubenfeld GD, **Kavanagh BP**, ND Ferguson. Erratum to: Measuring diaphragm thickness with ultrasound in mechanically ventilated patients: feasibility, reproducibility and validity. *Intensive Care Medicine*. 2015 Apr;41(4):734. **Coauthor or Collaborator**

## Peer-Reviewed Fundings

- 2015 - 2017 **Co-applicant**. Physiology of negative pressure ventilation. Canadian Institutes of Health Research (CIHR). PI: Yoshida, T. \$150,000.00.00 CAD. [Grants]
- 2015 - 2017 **Co-Investigator**. Diaphragm activity and function during mechanical ventilation. Ontario Thoracic Society. PI: Ferguson, Niall & Goligher Ewan. Collaborator(s): LJ Brochard, GD Rubenfeld, BP Kavanagh (co-investigators). \$100,000.00 CAD. [Grants]
- 2014 Apr - 2019 Mar **Principal Applicant**. Ventilator-Induced Lung Injury: Linking gene activation, physiology and outcome (Operating Grant). Canadian Institutes of Health Research (CIHR). Collaborator(s): M Post, G Santyr, M Amato (Co-applicants). \$718,000.00 CAD. [Grants]
- 2013 - 2018 **Co-applicant**. Linking Ventilator-induced diaphragm Dysfunction and Weaning Failure to Diaphragm Inactivity During Mechanical Ventilation: A Physiological Clinical Research Program (CIHR Fellowship Grant). Canadian Institutes of Health Research (CIHR). PI: E Goligher. \$275,000.00 CAD. [Grants]
- 2010 Oct - 2015 Sep **Sole Applicant**. Preclinical Assessment of Therapeutic Hypercapnia (Operating Grant-Renewal). Canadian Institutes of Health Research (CIHR). \$563,000.00 CAD. [Grants]



## Invited Lectures and Presentations

### International

- 2015 Oct **Moderator.** Best of Abstracts: Clinical Science; Refresher Course Lecture: The Evidence Behind Evidence-Based Medicine (lead speaker). Anesthesiology 2015 (ASA). San Diego, California, United States.
- 2015 Oct **Invited Speaker.** The Evidence Behind EBM (MDACC Grand Rounds). University of Texas MD Anderson Cancer Center. Houston, Texas, United States.
- 2015 Oct **Chair.** Hypercapnia is safe and well tolerated in the critically ill; Poster Corner Session: Setting and Monitoring Mechanical Ventilation; Acidosis and carbon dioxide; Poster Corner Session: Acute Respiratory Failure and Mechanical Ventilation: Experimental Studies. European Society of Intensive Care Medicine (ESICM) 2015. Berlin, Germany.
- 2015 Sep **Invited Speaker.** Permissive hypercapnia: bench to bedside. 29th Annual Paediatric Intensive Care Society Conference (PICS 2015). Birmingham, United Kingdom.
- 2015 Sep **Invited Speaker.** How I use inotropes (and cardiovascular monitoring) in the patient with septic shock. SickKids Critical Care Alumni meeting: Masterclass Programme. Birmingham, United Kingdom.
- 2015 Mar **Invited Speaker.** Clinical decision making in critical care medicine: strengths and limitations of kinds of medical knowledge; Case discussion: Challenging pediatric respiratory failure; Fluid and Shock (Chair); Neonatal and Pediatric Case discussion: ECLS indication and goals. 11th European Postgraduate Course in Neonatal and Pediatric Intensive Care. Berne, Switzerland.
- 2015 Mar **Invited Speaker.** Sepsis and ARDS: Towards individualized therapies; The Biology: VILI - Still a problem?; Can Hypercapnia Help: VILI - Still a problem?; The Current Place of Protocols: Do you like bundles?; VO<sub>2</sub> is dependent on DO<sub>2</sub> – Evidence from VA ECMO: Altered oxygen extraction ; Omics: The Basics (moderator); How Much Oxygen? (moderator). 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar **Invited Speaker.** Treating parameters; Use and abuse of protocols. NEICS Spring Meeting. Darlington, United Kingdom.
- 2015 Feb **Invited Speaker.** The value of evidence based medicine and RCTs in intensive care; Permissive hypercapnia. Dutch Society of Intensive Care Conference. Den Bosch, Netherlands.
- 2015 Jan **Invited Speaker.** Protocols: To guide or to blame? Society of Critical Care Medicine Congress. Phoenix, Arizona, United States.

- 2014 Dec **Invited Speaker.** Moving forward together – how institutions should use guidelines and protocols. Critical Care Grand Rounds. University of Alabama. Birmingham, Alabama, United States.
- 2014 Oct **Invited Speaker.** Protocols and Guidelines: Over-used and under-appreciated. ICU Grand Rounds. Bloomsbury Institute of Intensive Care Medicine. London, England, United Kingdom.
- 2014 Oct **Invited Moderator.** Point-Counterpoint session: We Give Too Much Fluid in the OR. Refresher Course Lecture: The Evidence Behind Evidence-Based Medicine. Anesthesiology (ASA). New Orleans, Louisiana, United States.
- 2014 Jun **Invited Speaker.** Protocols and Guidelines (Invited Professor – Division of Critical Care Medicine) Boston Children's Hospital, Division of Critical Care Medicine, Cardiac ICU, and Dept of Anesthesia. Boston, Massachusetts, United States.
- 2014 May **Invited Speaker.** CO2 in critical illness. University of Toronto and FMUSP (INCOR) Symposium 2014: Respiratory, Critical Care and Sleep Medicine. Sao Paulo, Brazil.
- 2014 Mar **Invited Speaker.** Plenary session: Hazards with normalization in ICUANZICS Conference 2014. Christchurch, New Zealand.
- 2014 Mar **Invited Speaker.** Is ARDS different in children?; Take care when translating “clever” ideas; Acute physiological responsiveness: A criterion for trial entry?; Pros and cons of protocols; A place for therapeutic hypercapnia?; Why young lungs are less sensitive •Impact of APRV on oxygen delivery. 33rd International Symposium of Intensive Care and Emergency Medicine. Belgium, Brussels.
- 2014 Feb **Invited Speaker.** Protocols and guidelines; PEEP during anesthesia; Fluids in OR: are we giving too much? International Anesthesia Meeting of the National Health Institute of Medical Sciences & Nutrition of Mexico. Mexico City, Mexico.
- 2014 Jan **Invited Speaker.** Experience should be used to make decisions; Glucose control in sepsis. Society of Critical Care Medicine Congress. San Francisco, California, United States.
- 2014 **Invited Speaker.** "Protocols and Guidelines in Acute Care" (Adobe Air application) OPEN Pediatrics. Boston, Massachusetts, United States.
- National**
- 2014 Oct **Invited Speaker.** The Earl J Wynands Lecture: Moving Forward Together: How Institutions Should Use Guidelines & Protocols Ottawa Heart Institute. Ottawa, Ontario, Canada.

2014 Jan **Invited Speaker.** The Rachel Waugh Memorial Lecture: Plenary lecture on anesthesia and critical care. "Bundles, Protocols and Guidelines - Moving Us Forward?" Dept of Anesthesiology. Children's Hospital of Eastern Ontario. London, Ontario, Canada.

**Local**

2015 Oct **Co-Moderator.** Physician-Assisted Death; Do Molecules Matter?; AC Bryan Physiology Symposium; DCD a Standard for Care? (pro); Physiology to improve RCTs. Critical Care Canada Forum 2015. Toronto, Canada.

2015 Sep **Invited Speaker.** Anesthesiology - Shaping Our Future. 60th Ontario Anesthesia Meeting. Toronto, Canada.

2014 Oct **Invited Co-Moderator.** How Will We Manage Injured Lungs; What is ARDS? VA-ECMO - Testing O2 Supply-Dependency. AC Bryan Physiology Symposium. Critical Care Canada Forum. Toronto, Ontario, Canada.

**Dr. Afrothite Kotsakis (Hospital for Sick Children)**

**Peer-reviewed Publications**

**Journal Articles**

**Kotsakis A**, Stevens D, Forndova H, Richard N, Williamson G, Mohseni-Bod H, Parshuram CS. A Description of Paediatric Intensive Care Unit Unplanned Readmission. *Pediatric Critical Care Medicine*. 2015 Jul. **Principal Author**.

**Kotsakis A**, Mercer K, Mohseni-Bod H, Gaiteiro R, Agbeko R. The development and implementation of an inter-professional simulation based pediatric acute care curriculum for ward health care providers. *J Interprof Care*. 2015 Jul 1;29(4):392-4. **Principal Author**.

Mema B, Park Y, **Kotsakis A**. Validity and Feasibility Evidence of Objective Structured Clinical Exam (OSCE) To Assess Competencies of Pediatric Critical Care Trainees. *Critical Care Medicine*. 2015. In Press. **Senior Principal Author**.

Gilfoyle G, Koots DA, Annear JC, Bhanji F, Cheng A, Duff JP, Grant V, St George-Hyslop CE, Delaloye NJ, McCoy CD, Ramsay CE, Weiss MJ, Gottesman RD. Improved Clinical Performance and Teamwork of Paediatric Interprofessional Resuscitation Team with a Simulation Based Educational Intervention. *Resuscitation*. 2015. **Coauthor or Collaborator**.

**Kotsakis A**, Mercer K, Mohseni-Bod H, Gaiteiro R, Agbeko R. The development and implementation of an inter-professional simulation based pediatric acute care curriculum for ward health care providers. *Journal of Interprofessional Care*. 2014 Nov 25. **Principal Author**.

Fouilloux V, Doguet F, **Kotsakis A**, Dubrowski 4, Berdah S. A model of cardiopulmonary bypass staged training integrating technical and non-technical skills dedicated to cardiac trainees. *Perfusion*. 2014 May 19. **Coauthor or Collaborator**.

**Book Chapters**

**Kotsakis A**. Single Ventricle Management. In: *Cardiac Critical Care Handbook*. 2014. **Principal Author**.

**Kotsakis A**. Mannequin Based Simulators. In: *Pediatric Simulation Textbook*. 2014. **Coauthor or Collaborator**.

**Kotsakis A**. Head Injury. In: *Trauma Resuscitation in Kids*. 2014. **Coauthor or Collaborator**.

**Kotsakis A**. Spinal Cord Injury. In: *Trauma Resuscitation in Kids*. 2014. **Coauthor or Collaborator**.

**Curriculum**

**Kotsakis A**, Mehta S. Head Injury. *Trauma Resuscitation in Kids*. 2015. Available from: [http://www.royalcollege.ca/portal/page/portal/rc/resources/ppi/trik\\_course](http://www.royalcollege.ca/portal/page/portal/rc/resources/ppi/trik_course). **Coauthor or Collaborator**.

## Peer-Reviewed Funding

- 2010 Dec - 2014 Dec **Principal Site Investigator.** Can adherence to PALS guidelines be improved by team training of pediatric resuscitation team members? Heart and Stroke Foundation of Canada (HSFC) and the Canadian Institutes of Health Research Institute of Circulatory and Respiratory Health (CIHR-ICRH). PI: Gilfoyle, Elaine. Collaborator(s): Duff, J., **Kotsakis, A.**, Gottesman, R., Writer, H. \$474,038.00 CAD. [Grants]
- 2010 Oct - 2014 Sep **Principal Site Investigator.** Evaluating Processes of Care & the Outcomes of Children in Hospital (EPOCH): A Cluster Randomized Trial of the Bedside Early Warning System. Canadian Institutes of Health (CIHR). PI: Parshuram, C. \$3,266,764.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2014 Apr 23 **Invited Speaker.** Title: Build It And They Will Come: Tools To Develop An Interprofessional Simulation-Based Education Program. 6th International Pediatric Simulation Symposia and Workshop. Wien, Austria. Presenter(s): Elaine Ng Afrothite Kotsakis.
- 2014 Apr **Invited Speaker.** 6th International Pediatric Simulation Symposia and Workshops. International Pediatric Simulation. Wien, Austria. Presenter(s): Mema, B., Kotsakis, A. Validation of A Paediatric Critical Care OSCE.

### Provincial

- 2015 Nov **Senior Author.** Improved Clinical Performance and Teamwork of Pediatric Interprofessional Resuscitation Teams with a Simulation-Based Educational Intervention. Royal College of Physicians and Surgeons - Simulation Summit 2015. Banff, Alberta, Canada. Presenter(s): Elaine Gilfoyle, D Koot, J Annear, F Bhanji, A Cheng, J Duff, V Grant, C St. George-Hyslop, N Delaloye, **A Kotsakis**,

### National

- 2014 Apr **Invited Lecturer.** Feasibility and validity evidence using a simulation-based OSCE to assess readiness for independent practice in Pediatric Critical Care trainees. AMEE Ottawa Conference. Ottawa, Ontario, Canada. Presenter(s): Mema, B., Kotsakis, A., Park, YS, Lobos, TA, Writer, H.

## Local

- 2015 Oct 5 **Invited Speaker.** Innovative Team Learning & Resilience. ECLS 2015 - The Future is Now! Academic Day, The Hospital for Sick Children. Toronto, Ontario, Canada. Presentation at the ECLS 2015 Academic Day (25th Anniversary). Presentation was part of the Innovation with 3Ts: Team, Technology and Therapies.
- 2015 Oct 5 **Facilitator.** Protection & Recovery. ECLS 2015 - The Future is Now! Academic Day, The Hospital for Sick Children. Toronto, Ontario, Canada. Presenter(s): Dr. Osami Honjo and Dr. Anne-Marie Guerguerian. Moderator for the ECLS Academic Day.
- 2015 Jun 2 **Senior Author.** Pediatric ICU Readmission: A Systemic Review. Art Slutsky Day (IDCCM), University of Toronto Faculty of Medicine. Toronto, Ontario, Canada. Presenter(s): Neeraj Verma.
- 2014 Dec 5 **Invited Speaker.** Develop a Simulation Based Standardized Clinical Exam (OSCE) in a Competency Based Medical (CBM) Era. SIM-one. Toronto, Ontario, Canada. Presenter(s): Kotsakis, A., Mema, B.
- 2014 Dec 5 **Presenter.** Debriefing interprofessional teams. SIM-one. Toronto, Ontario, Canada. Presenter(s): Ng, E., Kotsakis, A., Murray, D.
- 2014 Nov 6 **Presenter.** Facilitation and Debriefing Course. The Learning Institute, Hospital for Sick Children. Toronto, Ontario, Canada.
- 2014 Oct 25 **Invited Speaker.** Debriefing: From simulation to clinical setting. Interenational Conference on Residency Education. Toronto, Ontario, Canada. Developed the workshop with a coauthor including learning objectives, teaching material, case based teaching scenarios.
- 2014 Oct 24 **Invited Speaker.** Development of a simulation based extra corporeal support ECMO programme. International Conference on Residency Education. Toronto, Ontario, Canada. Poster presentation at the ICRE Conference.
- 2014 Oct **Invited Speaker.** Debriefing: From simulation to clinical setting. International Conference on Resident Education (ICRE) Royal College. Toronto, Ontario, Canada. Presenter(s): A. Kotsakis, E. Ng, T. Everett.

**Dr. Peter Laussen (Hospital for Sick Children)**

**Peer-Reviewed Publications**

**Journal Articles**

Lasa J, Rogers RS, Localio R, Shults J, Raymond T, Gaies M, Thiagarajan R, **Laussen PC**, Kilbaugh T, Berg RA, Nadkarni V, Topjian A. Extracorporeal-cardiopulmonary resuscitation (E-CPR) rescue during pediatric in-hospital cardiopulmonary arrest is associated with improved survival to discharge: a report from the American Heart Association's Get With the Guidelines-Resuscitation Registry (GWTG-R). *Circulation*. 2015 Dec. In Press. **Coauthor or Collaborator**.

Mehta NM, Sharma S, **Laussen PC**. Unplanned extubation: securing the tool of our trade. *Intensive Care Medicine*. 2015 Nov;41(11):1983-5. **Senior Principal Author**.

da Cruz EM, Tabbutt S, Eisenhaur MC, Jacobs JP, Graham EM, Smith LC, Simsic J, **Laussen PC**. Confessions of PCICU leaders: Tales from the past, lessons for the future. *World J Pediatr Congenit Heart Surg*. 2015 Oct;6(4):556-64. **Senior Principal Author**.

Andersen LW, Berg KM, Saindon BZ, Massaro JM, Raymond TT, Berg RA, Nadkarni VM, Donnino MW; American Heart Association Get With The Guidelines-Resuscitation Investigators. Time to epinephrine and survival after pediatric in-hospital cardiac arrest. *JAMA*. 2015 Aug;314(8):802-10. **Coauthor or Collaborator**.

Cheng HH, Carmona F, McDavitt E, Wigmore D, Perez-Rossello JM, Gordon CM, Pigula FA, **Laussen PC**, Rajagopal SK. Fractures related to metabolic bone disease in children with congenital heart disease. *Congenital Heart Disease*. 2015 Aug;Epub ahead of print. **Coauthor or Collaborator**.

Taylor KL, **Laussen PC**. Anesthesia outside of the operating room: The pediatric cardiac catheterization laboratory. *Curr Opin Anaesthesiol*. 2015 Aug;128(4):453-7. **Senior Principal Author**.

**Laussen PC**. Learning and Evolving (2nd Anthony Chang Lecture, presented at the 10th International Meeting of the Pediatric Cardiac Intensive Care Society, Miami, Florida - Dec 12, 2014). *Cardiol Young*. 2015 Jun;25(5):984-90. **Senior Principal Author**.

Gaies M, Cooper DS, Tabbutt S, Schwartz SM, Ghanayem N, Chanani NK, Costello JM, Thiagarajan RR, **Laussen PC**, Shekerdemian LS, Donohue JE, Willis GM, Gaynor JW, Jacobs JP, Ohye RG, Charpie JR, Pasquali SK, Scheurer MA. Collaborative quality improvement in the cardiac intensive care unit: development of the Paediatric Cardiac Critical Care Consortium (PC4). *Cardiol Young*. 2015 Jun;25(5):951-7. **Coauthor or Collaborator**.

Raymond TT, Stromberg D, Stigall W, Burton G, Zaritsky A; American Heart Association's Get With The Guidelines-Resuscitation Investigators. Sodium bicarbonate use during in-hospital pediatric pulseless cardiac arrest - a report from the American Heart Association Get With The Guidelines - Resuscitation. *Resuscitation*. 2015 Apr;89:106-13. **Coauthor or Collaborator**.

Taylor K, Moulton D, Zhao XY, **Laussen P**. The impact of targeted therapies for pulmonary hypertension on pediatric intraoperative morbidity or mortality. *Anesthesia and Analgesia*. 2015 Feb;120(2):420-6. **Senior Principal Author**.

Bertolizio G, DiNardo JA, **Laussen, PC**, Polito A, Pigula FA, Zurakowski D, Kussman BD. Evaluation of Cerebral Oxygenation and Perfusion with Conversion from an Arterial-to-Systemic Shunt Circulation to the Bidirectional Glenn Circulation in Patients with Univentricular Cardiac Abnormalities. *Journal of Cardiothoracic and Vascular Anesthesia*. 2015 Feb;29(1):95-100. **Coauthor or Collaborator**.

Eytan D, Pang EW, Doesburg SM, Nenadovic V, Gavrilovic B, **Laussen P**, Guerguerian AM. Bedside functional brain imaging in critically-ill children using high-density EEG source modelling and multi-modal sensory stimulation. *NeuroImage*. 2015. In Press. **Coauthor or Collaborator**.

Lin YL, Guerguerian AM, **Laussen P**, Trbovich P. Heuristic evaluation of a data integration and visualization software used for continuous monitoring to support intensive care: a bedside nurse's perspective. *Medical Science*. 2015. In Press. **Coauthor or Collaborator**.

Nathan M, Sleeper LA, Ohye RG, Frommelt PC, Caldarone CA, Tweddell JS, Lu M, Pearson GC, Gaynor JW, Pizarro C, Williams IA, Colan SD, Dunbar-Masterson C, Gruber PJ, Hill K, Hirsch-Romano J, Jacobs JP, Kaltman JR, Kumar SR, Morales D, Bradley SM, Kanter K, Newburger JW; Pediatric Heart Network Investigators. Technical performance score is associated with outcomes after the Norwood procedure. *Journal of Thoracic and Cardiovascular Surgery* 2014 November. 148(5): 2208-13. **Coauthor or Collaborator**.

Shakti D, McElhinney DB, Gauvreau K, Yarlagadda VV, **Laussen PC**, Betit P, Myrer ML, Thiagarajan, RR. Pulmonary dead space and post-operative outcomes in neonates undergoing stage I palliation operation for single ventricle heart disease. *Pediatric Critical Care Medicine*. 2014 Oct. 15(8):728-34. **Coauthor or Collaborator**.

Goldberg CS, Lu M, Sleeper LA, Mahle WT, Gaynor JW, Williams IA, Mussatto KA, Ohye RG, Graham EM, Frank DU, Jacobs JP, Krawczeski C, Lambert L, Lewis A, Pemberton VL, Sananes R, Sood E, Wechsler SB, Bellinger DC, Newburger JW; Pediatric Heart Network Investigators. Factors associated with neurodevelopment for children with single ventricle lesions. *Journal of Pediatrics*. 2014 September. 165(3). 490-96. **Coauthor or Collaborator**.

Gaies M, Cooper DS, Tabbutt S, Schwartz SM, Ghanayem N, Chanani NK, Costello JM, Thiagarajan RR, **Laussen PC**, Shekerdemian LS, Donohue JE, Willis GM, Gaynor JW, Jacobs JP, Ohye RG, Charpie JR, Pasquali SK, Scheurer MA. Collaborative quality improvement in the cardiac intensive care unit: development of the Paediatric Cardiac Critical Care Consortium (PC4). *Cardiol Young*. 2014 August. 28:1-7. **Coauthor or Collaborator**.

Costello JM, Dunbar Masterson C, Allan CK, Gauvreau K, Newburger JW, McGowan FX, Wessel DL, Mayer Jr. JE, Salvin JW, Dionne ER, **Laussen PC**. Impact of Empiric Nesiritide or Milrinone Infusion on Early Postoperative Recovery following Fontan Surgery: A Randomized, Double-blind, Placebo-Controlled Trial. *Circulation Heart Failure*. 2014 July. 7(4): 596-604. **Senior Responsible Author**.



Cheng HH, Wypij D, **Laussen PC**, Bellinger DC, Stopp CD, Soul JS, Newburger JW, Soul J, Stopp C, Kussman B. Cerebral Blood Flow Velocity and Neurodevelopmental Outcome in Infants Undergoing Surgery for Congenital Heart Disease. *Annals of Thoracic Surgery* 2014 July. 98(1): 125-32. **Coauthor or Collaborator**.

Agus MS, Asaro LA, Steil GM, Alexander JL, Silverman M, Wypij D, Gaies MG, SPECS Investigators. Tight glycemic control after pediatric cardiac surgery in high-risk patient populations: a secondary analysis of the safe pediatric euglycemia after cardiac surgery trial. *Circulation*. 2014 June. 129(22): 2297-304. **Coauthor or Collaborator**.

Teele SA, Salvin JW, Barrett CS, Rycus PT, Fynn-Thompson F, **Laussen PC**, Thiagarajan RR. The Association of Carotid Artery Cannulation and Neurologic Injury in Pediatric Patients Supported With Venoarterial Extracorporeal Membrane Oxygenation. *Pediatric Critical Care Medicine* . 2014 May. 15(4):355-61. **Coauthor or Collaborator**.

Lambert LM, Pike NA, Medoff-Cooper B, Zak V, Pemberton VL, Young-Borkowski L, Clabby ML, Nelson KN, Ohye RG, Trainor B, Uzark K, Rudd N, Bannister L, Korsin R, Cooper DS, Pizarro C, Zyblewski SC, Bartle BH, Williams RV; Pediatric Heart Network Investigators. Variation in feeding practices following the Norwood procedure. *J Pediatr*. 2014 May. 164(2):237-42. **Coauthor or Collaborator**.

Odegard KO, Bergersen L, Clark L, Shukla A, Thiagarajan RR, **Laussen PC**. The Frequency of Cardiac Arrests in Patients with Congenital Heart Disease Undergoing Cardiac Catheterization. *Anesth Analg*. 2014 Jan. 118(1):175-82. **Senior Responsible Author**.

Rajagopal SK, Carmona F, Perez-Rossello JM, Gordon CM, Pigula FA, **Laussen PC**. Fractures related to metabolic bone disease in critically ill children with congenital heart disease. *Critical Care Medicine*. 2014. **Senior Responsible Author**.

## **Books**

Barach PR, Jacobs JP, **Laussen PC**, Lipshultz SE, editor(s). *Pediatric and Congenital Cardiac Care. Vol 1: Outcomes Analysis*. Springer Verlag London; 2015. **Editor**.

Barach PR, Jacobs JP, **Laussen PC**, Lipshultz SE, editor(s). *Pediatric and Congenital Cardiac Care. Vol 2: Quality Improvement and Patient Safety*. Springer Verlag London; 2015. **Editor**.

## **Book Chapters**

Thiagarajan RR, **Laussen PC**. Risk adjustment for congenital heart surgery -1 (RACHS-1) for evaluation of mortality in children undergoing cardiac surgery. In: Barach PR, Jacobs JP, Laussen PC, Lipshultz SE, editor(s). *Pediatric and Congenital Cardiac Care. Vol 1: Outcomes Analysis*. Springer Verlag London; 2015. p. 327-336. **Co-Principal Author**.

Hickey EJ, Van Arsdell GS, **Laussen PC**. Failure to rescue and failure to perceive in pediatric cardiac surgery: lessons learned from aviation. In: Barach PR, Jacobs JP, Laussen PC, Lipshultz SE, editor(s). *Pediatric and Congenital Cardiac Care. Vol 2: Quality Improvement and Patient Safety*. Springer Verlag London; 2015. p. 185-195. **Coauthor or Collaborator**.

Harrington K, **Laussen PC**. Resilience and systems engineering. In: Barach PR, Jacobs JP, Laussen PC, Lipshultz SE, editor(s). Pediatric and Congenital Cardiac Care. Vol 2: Quality Improvement and Patient Safety. Springer Verlag London; 2015. p. 331-340. **Coauthor or Collaborator**.

Baronov D, Lock J, Phillips S, Almodovar MC, **Laussen PC**, Butler E. Towards effective data utilization in congenital cardiac critical care. In: Barach PR, Jacobs JP, Laussen PC, Lipshultz SE, editor(s). Pediatric and Congenital Cardiac Care. Vol 2: Quality Improvement and Patient Safety. Springer Verlag London; 2015. p. 387-395. **Coauthor or Collaborator**.

Barach PR, Jacobs JP, **Laussen PC**, Lipshultz SE. Epilogue - A vision for the future. In: Barach PR, Jacobs JP, Laussen PC, Lipshultz SE, editor(s). Pediatric and Congenital Cardiac Care. Vol 2: Quality Improvement and Patient Safety. Springer Verlag London; 2015. p. 441-445. **Coauthor or Collaborator**.

Barach PR, Jacobs JP, **Laussen PC**, Lipshultz SE. Introduction. In: Barach PR, Jacobs JP, Laussen PC, Lipshultz SE, editor(s). Pediatric and Congenital Cardiac Care. Vol 2: Quality Improvement and Patient Safety. Springer Verlag London; 2015. p. 1-6. **Coauthor or Collaborator**.

Barach PR, Jacobs JP, **Laussen PC**, Lipshultz SE. Introduction. In: Barach PR, Jacobs JP, Laussen PC, Lipshultz SE, editor(s). Pediatric and Congenital Cardiac Care. Vol 1: Outcomes Analysis. Springer Verlag London; 2015. p. 3-8. **Coauthor or Collaborator**.

**Laussen PC**, Wessel DL. Foreward. In: Bronicki, Bergen, Costello, Jones, editor(s). Handbook of Cardiac Intensive Care. 2015. In Press. **Principal Author**.

Schurre A, **Laussen PC**, Odegard KC. Approach to the Fetus, Premature and Full Term Infant. 2015. In Andropolous DB, Slayer SA, Russell IA, editor(s). Anesthesia for Congenital Heart Disease. 3rd Edition. In Press. **Coauthor or Collaborator**.

Sivarajan B, Yeh J, **Laussen PC**, Roth SP. Cardiac Intensive Care. 2014. In Anesthesia for Congenital Heart Disease. 3rd Edition. Andropolous DB, Slayer SA, Mossad EB, Miller-Hance WC, editor(s). In Press. **Coauthor or Collaborator**.

**Laussen PC**, Salvin J. Diagnostic and Therapeutic Cardiac Catheterization. In Pediatric Critical Care 4th Edition. Fuhrman BP, Zimmerman JJ (Eds). Mosby Inc, St Louis, MO. In Press. **Principal Author**.

Rotta A, Wessel DL, **Laussen PC**. Pediatric Cardiac Intensive Care. In: Jones RA, editor(s). Comprehensive Surgical Management of Congenital Heart Disease. 2nd Edition. London (United Kingdom): Taylor & Francis; 2014. **Senior Responsible Author**.

Costello JM, **Laussen PC**. Congenital Heart Disease: Cyanotic lesions with decreased pulmonary blood flow. In: Wheeler DS, Wong HR, Shanley TP, editor(s). Pediatric Critical Care Medicine: Basic Science and Clinical Evidence. 2nd Edition. London (United Kingdom): Springer-Verlag; 2014. **Senior Responsible Author**.

## Peer-Reviewed Funding

- 2015 Jul - 2017 Jun **Principal Applicant.** Validating a hemodynamic early warning system in pediatric critical care. University of Toronto. Department of Anesthesia Merit Award. \$60,000.00 CAD. [Grants]
- 2015 Apr - 2017 Mar **Principal Site Investigator.** Risk Assessment Using Noninvasive Measurements in Postoperative Pediatric Patients. NIH - National Heart, Lung, and Blood Institute. Small Business Innovation Research Program. 2R44HL117340-03A1. \$2,000,000.00 USD. [Grants]
- 2012 Jul - 2014 Jul **Principal Investigator.** Risk Assessment Using Non-Invasive Measurements in Post-Operative Pediatric Patients. Boston Children's Hospital. Sterling Point Research LLC. NIH-SBIR 1R43HL117340-01. \$498,191.00 USD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Dec 10 **Session Moderator.** Risk Perceptions by Others - Risky Business Cooperation. Pediatric Cardiac Intensive Care Society Conference (PCICS 2015). Houston, Texas, United States.
- 2015 Nov 7 **Invited Speaker.** "Patient Safety in PICU". 23rd Annual Pediatric Critical Care Workshop. Tsukuba City, Japan.
- 2015 Nov 7 **Invited Speaker.** "Airway and Respiratory Management in Heart Failure". 23rd Annual Pediatric Critical Care Workshop. Tsukuba City, Japan.
- 2015 Oct 7 **Invited Speaker.** Holbrook Lecture: "Risky Business: Learning from Others: A Capital Idea". Hospital Grand Rounds - Children's National. Washington, District of Columbia, United States.
- 2015 Sep 15 **Invited Speaker.** "Data visualization for better decisions". 29th Annual Paediatric Intensive Care Society Conference (PICS 2015). Birmingham, United Kingdom.
- 2015 Sep 14 **Invited Speaker.** "How I organize my PICU system of care to provide state of the art care". Masterclass Programme: Hospital for Sick Children Critical Care Alumni (PICS 2015). Birmingham, United Kingdom.
- 2015 Sep 11 **Co-Chair.** Scores and Outcomes in Cardiac Disease. 4th European Conference on Paediatric and Neonatal Cardiac Intensive Care (EPNCIC). Geneva, Switzerland.
- 2015 Sep 11 **Co-Chair.** Up-to-Date Lecture 1. 4th European Conference on Paediatric and Neonatal Cardiac Intensive Care (EPNCIC). Geneva, Switzerland.

- 2015 Sep 11 **Invited Speaker.** “The basic need to build a highly reliable cardiac team”. 4th European Conference on Paediatric and Neonatal Cardiac Intensive Care (EPNCIC). Geneva, Switzerland.
- 2015 Sep 10 **Invited Speaker.** “Capturing, storing, visualizing, and sharing of big data wisely”. 4th European Conference on Paediatric and Neonatal Cardiac Intensive Care (EPNCIC). Geneva, Switzerland.
- 2015 Mar 12 **Invited Speaker.** “Critical Congenital Heart Disease: HLHS - Before the OR” (Multidisciplinary Round Table). CHOC Children’s NeoHeart 2015: Cardiovascular Management of the Neonate. Huntington Beach, California, United States.
- 2015 Mar 12 **Invited Speaker.** “Critical Congenital Heart Disease: HLHS - Perioperative Issues” (Multidisciplinary Round Table). CHOC Children’s NeoHeart 2015: Cardiovascular Management of the Neonate. Huntington Beach, California, United States.
- 2015 Mar 12 **Invited Speaker.** “Optimal post-operative care”. CHOC Children’s NeoHeart 2015: Cardiovascular Management of the Neonate. Huntington Beach, California, United States.
- 2015 Feb 14 **Invited Speaker.** “Can we use big data to inform on decisions concerning extubation?”. Cardiology 2015: 18th Annual Update on Pediatric and Congenital Heart Disease - Challenges and Dilemmas. Scottsdale, Arizona, United States.
- 2015 Feb 14 **Invited Speaker.** “Thrombosis in Pediatric and Congenital Cardiovascular Disease” (Moderated Panel of Experts). Cardiology 2015: 18th Annual Update on Pediatric and Congenital Heart Disease - Challenges and Dilemmas. Scottsdale, Arizona, United States.
- 2015 Feb 12 **Invited Speaker.** “T3: The Boston/Toronto approach to predictive analytics for physiological data”. Cardiology 2015: 18th Annual Update on Pediatric and Congenital Heart Disease - Challenges and Dilemmas. Scottsdale, Arizona, United States.
- 2014 Dec 12-13 **Invited Speaker.** Teaching in the CICU: Bullying or Feedback? (Pro/Con); Learning and Evolving (The Anthony C. Chang lecture); Pediatric Cardiac Intensive Care Society 10th International Conference. Florida, Miami, United States.
- 2014 Dec 12 **Moderator.** Confessions of a CICU Director. Pediatric Cardiac Intensive Care Society 10th International Conference. Florida, Miami, United States.

- 2014 Nov 17      **Presenter.** Frequency and Contributing Factors to Diaphragm Paresis following Pediatric Cardiac Surgery. American Heart Association Scientific Sessions 2014. Chicago, Illinois, United States. Presenters: Zafurallah I, Honjo O, Laussen PC, MacDonald C, Floh A.
- 2014 Nov 16      **Invited Co-Chair.** Cardiopulmonary Resuscitation in Infants and Children with CDH: New Guidelines and Opportunities. American Heart Association Scientific Sessions 2014. Chicago, Illinois, United States.
- 2014 Nov 15      **Invited Speaker.** How Emerging Technologies will Impact Patient Care and Your Career. American Heart Association Scientific Sessions 2014. Chicago, Illinois, United States.
- 2014 Sept 12      **Invited Speaker.** Signals, Noise & Risk: Personalising Big Data. Risky Business 2014. England, London, United Kingdom.
- 2014 Sept 11      **Chair.** Reality Check and Opportunities for Individuals. Risky Business 2014. England, London, United Kingdom.
- 2014 Sept 11      **Moderator.** Surveillance: How do we recognize excellent and failing teams and hospitals? Reality Check and Opportunities for Individuals. Risky Business 2014. England, London, United Kingdom.
- 2014 Jul 3-5      **Invited Speaker.** Recent development of pre- and postoperative neonatal cardiac surgery; Management of HLHS; Modifiable Risk: Critical Care Contributions to Outcome. 50th Annual Meeting of Japanese Society of Pediatric Cardiology and Cardiac Surgery. Okayama, Japan.
- 2014 May 14      **Invited Speaker.** Big Data: Big Gains. Department of Pediatrics Grand Rounds - Ann Newman Annual Lecture, Children's Hospital of Philadelphia. Philadelphia, United States.
- 2014 May 5-7      **Invited Speaker.** Transforming data to information: The challenges is ours; What cardiac intensivists think is important; The challenge of transitioning young adult with congenital heart disease from pediatrics to adult care. 7th World Congress on Pediatric Intensive and Critical Care; Istanbul, Turkey.
- 2014 May 5      **Moderator.** The Heart: Heart and Family. 7th World Congress on Pediatric Intensive and Critical Care; Istanbul, Turkey.
- 2014 May 2      **Moderator.** Risky Business (Comparing Fast Cars, Space Travel and Anesthesia Risk. Practical Aspects of Pediatric Anesthesia and Critical Care, Boston Children's Hospital & Harvard Medical School. Boston, United States.
- 2014 Mar 6      **Invited Speaker.** Heart failure management: Current management strategies. Congenital Cardiac Anesthesia Society (CCAS) 2014. Fort Lauderdale, Florida, United States.

2014 Jan **Invited Speaker.** Modifiable Risk in the CICU: Seeing is Believing. Congenital Cardiology Group / SYZYGY Innovation Summit. Dana Point, United States.

### Provincial

2015 Oct 21 **Invited Speaker.** Dr Richard B Goldbloom Lectureship: “The Promises and Pitfalls of Big Data”. IWK Health Centre. Halifax, Nova Scotia, Canada.

2014 May **Presenter.** Cerebral Oxygenation Extraction Measured by NIRS and Jugular Bulb Oxygen Saturation Demonstrates the Importance of Hemoglobin Concentration in Congenital Heart Disease. International Anesthesia Research Society. Quebec, Montreal, Canada. Presenters: Kussman BD, McGowan FX, Laussen PC, McElinney DB, Benni P.

### National

2014 Oct 31 **Moderator.** Inhaled Nitric Oxide. Critical Care Canada Forum 2014. Toronto, Ontario, Canada.

2014 Oct 31 **Invited Speaker.** Inhaled Nitric Oxide: Stewardship for Use. Critical Care Canada Forum 2014. Toronto, Ontario, Canada.

2014 Oct 30 **Invited Speaker.** Two Decades of Managing Myocarditis. Critical Care Canada Forum 2014. Toronto, Ontario, Canada.

2014 Oct 29 **Invited Speaker.** Predictions from Physiologic Data. CCCF / CCCS Residents' Day. Toronto, Ontario, Canada.

### Local

2015 Nov 20 **Invited Speaker.** “Precision Critical Care”. Congenital Heart Surgeons’ Society (CHSS) Data Center Fall Work Weekend. Toronto, Canada.

2015 Oct 28 **Invited Speaker.** “Precision Monitoring”. Critical Care Canada Forum 2015. Toronto, Canada.

2015 Apr 29 **Facilitator.** “Conflict in Decision Making: How Much is Due to Genuine Differences in Values?” (workshop with Karen Breen-Reid and Dennis Scolnick). SickKids Paediatric Update: Everyday Ethics in the Healthcare of Children. Toronto, Canada.

2015 Feb 27 **Invited Speaker.** “Bedside PEWS: Decision to implement”. International Bedside PEWS Day. Toronto, Canada.

2014 Oct 29           **Chair.** Summary and Plans for SickKids-Birmingham 2015. SickKids Critical Care Alumni meeting. Toronto, Ontario, Canada.

2014 May 16           **Chair.** Closing Address. 10th Annual Paediatric Patient Safety Symposium and Risky Business Toronto 2014: Living with Uncertainty - Planning for the Future. Toronto, Ontario, Canada.

### **Honours and Awards**

2014 Jul               Department of Anesthesia Interim Merit Research Award. Department of Anesthesia, University of Toronto. Toronto, Canada.

2014 May               Best of Pediatric Anesthesiology Category Abstract Award. IARS 2014 Annual Meeting and International Science Symposium. Montreal, Canada.

**Dr. Briseida Mema (Hospital for Sick Children)**

**Peer-reviewed Publication**

**Journal Article**

Ma IW, Pugh D, **Mema B**, Brindle ME, Cooke L, Stromer JN. Use of an error-focused checklist to identify incompetence in lumbar puncture performances. Med Educ. 2015 Oct;49(10):1004-15. **Coauthor or Collaborator.**

Knox ADC, Reddy S, **Mema B**, DeMoya M, Cili-Turner E, Harris I. "Back in the Day"... What are Surgeon Bloggers Saying About Their Careers? Journal of Surgical Education. 2014 Jan;71(1):21-31. Journal of Surgical Education. 2014 Jan; 71(1):21-31. **Coauthor or Collaborator.**

**Peer-Reviewed Fundings**

2014 Feb - 2015 Feb **Collaborator.** RESPECT: a tool to improve patient care quality and safety & facilitate team learning. Canadian Institutes of Health Research (CIHR). Catalyst Grant: eHealth Innovations. PI: Parshuran, C. Collaborators: Dryden-Palmer V, Tijssen N. \$92,205.00.00 CAD. [Grant]

2014 - 2015 **Principal Investigator.** In search of the optimal bronchoscopy training platform: Evaluating the use of a novel, low cost, virtual tool for pre-training novice learners. The Hospital for Sick Children. Perioperative Services Innovation Projects. Collaborator: Dubrowski A. \$9,000.00 CAD. [Grant].

2013 Jul - 2015 Jul **Principal Applicant.** Rehearsal vs. Premier - Chest Tube Skills From Simulation to Bedside. The Hospital for Sick Children. Paediatric Consultant's Education Research Grants Committee. Collaborators: Park Y, Mylopopulos M. \$5000.00 CAD. [Grant]

2013 Jul - 2014 Jul **Principal Investigator.** Post Factum – What if you could change the terms? Initial experiences of U/S guided lines. The Hospital for Sick Children. Pediatric Consultants Education research Grants Committee. \$2,898.50 CAD. [Grant]

2012 Jul - 2014 Jul **Student.** Royal College of Physicians and Surgeons of Canada. Royal College Fellowship for Studies in Medical Education. Fellowship for Studies in Medical Education \$45,000.00 CAD. [Grant]



## Invited Lectures and Presentations

### International

- 2015 Feb 6            **Invited Speaker.** Education Beyond..."see one ...do one.... kill one". 12th Asia Pacific Medical Education Conference. Singapore.
- 2015 Feb 5            **Facilitator.** Develop a simulation based objective standardized clinical exam (OSCE) in a competency based medical education (CBME) era. 12th Asia Pacific Medical Education Conference. Singapore.
- 2015 Feb 5            **Facilitator.** 2nd presentation: Develop a simulation based objective standardized clinical exam (OSCE) in a competency based medical education (CBME) era. 12th Asia Pacific Medical Education Conference. Singapore.
- 2015 Feb 5            **Facilitator.** Effective Feedback: Through the Looking Glass. 12th Asia Pacific Medical Education Conference. Singapore.
- 2015 Feb              **Invited Speaker.** Building Technical skill curricula based on motor learning theories. University of Nagano. Nagano, Japan.
- 2015 Feb              **Invited Speaker.** Life at Sickkids: Clinical service and education. University of Nagano. Nagano, Japan.
- 2014 Oct 6-10        **Invited Speaker.** Pediatric EMS course. Cardiac Emergencies; AHA Updated Guidelines; Pediatric Septis; Respiratory Emergencies; Pediatric Shock. Yervan, Armenia.
- 2014 Oct 6-10        **Workshop.** Pediatric EMS course. Myocarditis; Defibrillator Use; Obstructive Shock. Yervan, Armenia.
- 2014 Apr 23          **Presenter.** 6th International Pediatric Simulation Symposia and Workshop. Validity of a Paediatric Critical Care Objective Standardized Clinical Examination. Presenters: Park Y, Writer H, Lobos A, Kotsakis A. Vienna, Austria.
- 2014 Apr 23          **Presenter.** 6th International Pediatric Simulation Symposia and Workshop. MORE IS NOT ALWAYS BETTER" High satisfaction and performance in thoracostomy with a low fidelity model. Vienna, Austria.
- 2014 Apr 23          **Presenter.** 6th International Pediatric Simulation Symposia and Workshop. Does a Hospital Wide Inter-Professional Mock Code Blue Training Program Impact Real Code Blue Events. Presenters: Murray D, Castelarín M, Ng E, Kotsakis A. Vienna, Austria.

## Provincial

- 2015 Nov 26 **Invited Lecturer.** Validity of simulation-based assessment tools. 2015 Simulation Summit. Banff, Alberta, Canada.
- 2015 Nov 25 **Invited Lecturer.** Effective use of simulation for procedural teaching. 2015 Simulation Summit. Banff, Alberta, Canada. Presenter(s): Mema B.
- 2015 Oct 24 **Invited Speaker.** Develop a simulation based objective standardized clinical exam (OSCE) in a competency based medical education (CBME) era. 2015 International Conference on Residency Education. Vancouver, British Columbia, Canada. Presenter(s): Mema, Briseida; Kawamura, Anne.

## National

- 2014 Apr 27 **Invited Speaker.** 16th Ottawa Conference - AMEE 2014. Feasibility and validity evidence using a simulation-based OSCE to assess readiness for independent practice in Paediatric Critical Care trainees. Presenters: Park YS, Lobos AT, Writer H, Kotsakis A. Ottawa, Ontario, Canada.

## Local

- 2015 Dec 15 **Invited Lecturer.** Effective use of simulation for procedural teaching in medical education: beyond..."see one", "do one"..."kill one". 2015 SIM expo. Toronto, Ontario, Canada.
- 2015 Dec 15 **Invited Lecturer.** Multimedia in simulation: building it in light of how human mind works. 2015 SIM expo. Toronto, Ontario, Canada.
- 2015 Nov 11 **Invited Lecturer.** Making Learning Stick. Faculty Development Day. 1 of 2 workshops. Toronto, Ontario, Canada.
- 2015 Nov 11 **Invited Lecturer.** Making Learning Stick. Faculty Development Day. 2 of 2 workshops. Toronto, Ontario, Canada.
- 2015 Nov 4 **Facilitator.** TLC planning Making Learning Stick. Royal Victoria Hospital. Barrie, Ontario, Canada. Presenter(s): **Mema B**, Kawamura A. TLC sessions.
- 2015 Mar 11 **Facilitator.** Efficient Teaching: tips for busy clinical teachers. Holland Bloorview - Kids Rehabilitation Hospital. Toronto, Ontario, Canada. Presenter(s): ANne Kawamura, **Briseida Mema**, Mohammad Zubairi.
- 2014 Dec 5 **Invited Speaker.** Ontario SIM Expo - Simulation-in-Action. Development a Simulation Based Objective Standardized Clinical Exam (OSCE) in a Competency Based Medical Education. Presenters: Kotsakis A. Toronto, Ontario, Canada.

- 2014 Dec 5      **Simulation Demonstration.** Ontario SIM Expo - Simulation-in-Action. More is not always better: High satisfaction and performance in thoracotomy with love fidelity model. Toronto, Ontario, Canada.
- 2014 Oct      **Presenter.** ICRE - International Conference on Residency Education . More is not always better: High satisfaction and performance in thoracotomy with love fidelity model. Toronto, Ontario, Canada.
- 2014 Oct      **Poster Presentation and Abstract.** ICRE - International Conference on Residency Education. Development of a simulation based extra corporeal support (ECMO) programme.Toronto, Ontario, Canada.

### **Honours and Awards**

- 2012 Jul - 2014 Jun      **POWER Teaching Award**, Postgraduate Medical Education, Dept of Pediatrics, Faculty of Medicine, University of Toronto, The Hospital for Sick Children, Ontario, Canada. (Postgraduate MD, Core Program)

**Dr. Hadi Mohseni-Bod (Hospital for Sick Children)**

**Peer-Reviewed Publications**

**Journal Articles**

Kukreti V, Drake J, **Mohseni-Bod H**. Management of raised intracranial pressure in traumatic brain injury in children. *Journal of Pediatric Neurosciences*. 2014 Dec. **Senior Responsible Author**.

Kotsakis A, Mercer K, **Mohseni-Bod H**, Gaiteiro R, Agbeko R. The development and implementation of an inter-professional simulation based pediatric acute care curriculum for ward health care providers. *J Interprof Care*. 2014 Nov 25:1-3. **Coauthor or Collaborator**.

Tosoni A, Dipchand AI, **Mohseni-Bod H**. The use of levosimendan in children with cancer with severe acute cardiac dysfunction: case series and a review of the literature. *Cardiol Young*. 2014 Jun 1;24(3):524-7. **Senior Responsible Author**.

Kukreti V, Kotsakis A, **Mohseni-Bod H**. Implementation of a Paediatric Rapid Response Team; Experience of the Hospital for Sick Children in Toronto. *Indian Journal of Paediatrics*. 2014 Jan;51(1):11-15. **Senior Responsible Author**.

**Invited Lectures and Presentations**

**International**

2014 Oct 16-22 **Invited Speaker**. Management of DKA; Central venous pressure monitoring; Neurologic monitoring in PICU. 26th International Paediatric Congress. Tehran, Iran.

**Dr. Christopher Parshuram (Hospital for Sick Children)**

**Peer-Reviewed Publications**

**Journal Articles**

**Parshuram CS**, Dryden-Palmer K, Farrell C, Gottesman R, Gray M, Hutchison JS, Helfaer M, Hunt E, Joffe A, Lacroix J, Nadkarni V, Parkin P, Wensley D, Willan AR, Canadian Critical Care Trials Group. Evaluating processes of care and outcomes of children in hospital (EPOCH): study protocol for a randomized controlled trial. *Trials*. 2015 Jun 2;16:245. **Principal Author**.

Taylor K, **Parshuram CS**. Harmonizing CPR evaluation oversight. *Resuscitation*. 2015 May 7. **Senior Responsible Author**.

**Parshuram CS**, Amaral AC, Ferguson ND, Baker GR, Etchells EE, Flintoft V, Granton J, Lingard L, Kirpalani H, Mehta S, Moldofsky H, Scales DC, Stewart TE, Willan AR, Friedrich JO, Canadian Critical Care Trials Group. Patient safety, resident well-being and continuity of care with different resident duty schedules in the intensive care unit: a randomized trial. *CMAJ*. 2015 Mar 17;187(5):321-9. **Principal Author**.

Imrie KR, Frank JR, **Parshuram CS**. Resident duty hours: past, present, and future. *BMC Med Educ*. 2014 Dec 11;14 Suppl 1:S1. **Senior Responsible Author**.

Osborne R, **Parshuram CS**. Delinking resident duty hours from patient safety. *BMC Med Educ*. 2014 Dec 11;14 Suppl 1:S2. **Senior Responsible Author**.

**Parshuram CS**, Friedrich J, Amaral A, Baker GR, Etchells E, Flintoft V, Granton J, Lingard L, Kirpalani H, Mehta S, Moldofsky H, Scales DC, Stewart T, Willam A, Ferguson N, Canadian Critical Care Trials Group. Patient safety, resident wellbeing and continuity in three resident duty schedules in ICU: a randomized trial. *CMAJ*. 2014 Nov. In Press. **Principal Author**.

Taylor KL, Ferri S, Yavorska T, Everett T, **Parshuram CS**. A description of communication patterns during CPR in ICU. *Resuscitation*. 2014 Oct 1;85(10):1342-7. **Senior Responsible Author**.

Zakova M, Pong S, Trope A, Atenafu EG, Papaioannou V, Bitnun SA, Richardson S, Schwartz S, Cox P, **Parshuram CS**, Seto W. Dose derivation of once-daily dosing guidelines for gentamicin in critically ill pediatric patients. *Ther Drug Monit*. 2014 Jun 1;36(3):288-94. **Coauthor or Collaborator**.

Ahmed N, Devitt KS, Keshet I, Spicer J, Imrie K, Feldman L, Cools-Lartigue J, Kayssi A, Lipsman N, Elmi M, Kulkarni AV, **Parshuram CS**, Mainprize T, Warren RJ, Fata P, Gorman MS, Feinberg S, Rutka J. A systematic review of the effects of resident duty hour restrictions in surgery: impact on resident wellness, training, and patient outcomes. *Ann Surg*. 2014 Jun;259(6):1041-1053. **Coauthor or Collaborator**.

Anand V, Scales DC, **Parshuram CS**, Kavanagh BP. Registration and design alterations of clinical trials in critical care: a cross-sectional observational study. *Intensive Care Med*. 2014 May 1;40(5):700-22. **Coauthor or Collaborator**.

Stremler R, Dhukai Z, Pullenayegum E, Weston J, Wong L, **Parshuram CS**. Sleep, sleepiness, and fatigue outcomes for parents of critically ill children. *Pediatr Crit Care Med*. 2014 Feb 1;15(2):e56-65. **Senior Responsible Author**.

### Book Chapters

**Parshuram CS**. Chapter 29: RAPID RESPONSE SYSTEMS. In: Rogers' Textbook of Pediatric Intensive Care. 5th Edition. LWW; 2015. In Press. **Coauthor or Collaborator**.

### Peer-Reviewed Funding

- 2014 Sep - 2018 Aug **Collaborator**. Quantifying brain injury on computed tomography in hospitalized children: a prospective trial. Canadian Institutes of Health Research (CIHR). Open operating grant. PI: Guerguerian, Anne-Marie. Collaborators: Kulkarni A, Hutchison J, Laughlin S, Raybaud C, Bigler E. \$976,825.00 CAD. [Grants]
- 2014 Sep - 2015 Mar **Principal Investigator**. Creating a video library to improve clinical expertise. Hospital for Sick Children. Mary Jo Haddad Innovation Fund. Collaborators: Middaugh K. \$5,000.00 CAD. [Innovation Fund]
- 2014 Feb - 2015 Mar **Principal Investigator**. RESPECT: a tool to improve patient care quality and safety & facilitate team learning. Canadian Institutes of Health Research (CIHR). 316820. Collaborators: Mema B, Nadkarni V, Tijssen J. \$90,821.00 CAD. [Grants]
- 2013 Jan - 2014 Dec **Co-Investigator**. Improving Precision: Randomized Control Trial of Milrinone Therapeutic Drug Monitoring. Canadian Anaesthesiologists' Society. PI: Taylor K. \$20,000.00 CAD. [Grants]
- 2012 – 2016 **Principal Investigator**. End of Life Research Funding. RDV Foundation. Unrestricted grant for RDV Foundation. \$150,000.00 CAD. [Grants]
- 2010 - 2015 **Principal Investigator**. The Bedside Paediatric Early Warning System: a cluster RCT of portality and processes of care. Canadian Institute of Health Research (CIHR). \$3,300,000.00 CAD. [Grants]

### Invited Lectures and Presentations

#### International

- 2015 Jan 21 **Invited Speaker**. BedsidePEWS. Sophia Children's Hospital. Rotterdam, Netherlands. Presenter(s): **Parshuram, Christopher**.
- 2015 Jan 16 **Invited Speaker**. BedsidePEWS. Princess University Hospital. London, United Kingdom. Presenter(s): **Parshuram, Christopher**.

- 2015 Jan 15 **Invited Speaker.** BedsidePEWS / Emergency BedsidePEWS. Whipp's Cross University Hospital. London, City of, United Kingdom. Presenter(s): **Parshuram, Christopher.**
- 2014 Nov 18 **Collaborator.** Classifying Pediatric Traumatic Brain Injury Using an Automated Digital Measurement Algorithm to Detect Cerebral Edema. Society of Neuroscience Conference. Washington, District of Columbia, United States. Presenters: Ta E, Laughlin S, Kulkarni A, Hutchison J, Guerguerian AM on behalf of the Young TBI and Attention and TBI Investigators of Canadian Critical Care Trials Group. (Trainee Presentation).
- 2014 May **Supervisor.** End of Life Conversation in Critical Care: A Simulation Intervention for Critical Care Nurses. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey. Presenters: Dryden-Palmer K, Gregoroff P, (Trainee Presentation).
- 2014 May 12 **Keynote Speaker.** IRRS Conference. Year in Review, "Pediatrics"; Plenary Session "Is Zero Possible". Miami, Florida, United States.
- 2014 Jan 11 **Invited Speaker.** Society of Critical Care Medicine (SCCM). Patient safety and resident well-being: evaluating three duty schedules for ICU residents; Patient Safety and Resident Well-Being: Evaluating Three Duty Schedules for ICU residents. San Francisco, California, United States.
- 2014 May 22 **Supervisor.** Clinical outcomes in children exposed to large volume blood transfusion during ECMO support. Euro-ELSO Conference. Paris, France. Presenter(s): E Fernandez-Diaz, R Osborne, M Todd, L Mak, W Lau, N Uppal, L Crawford-Lean, Helena Frndova, **C Parshuram.** (Trainee Presentation).
- 2014 May **Supervisor.** Enhancing Implementation; Identifying influential factors in the adoption of complex and clinical interventions. 7th World Congress on Pediatric Intensive and Critical Care. Istanbul, Turkey. Presenters: Dryden-Palmer K, Middaugh K. (Trainee Presentation).
- 2014 May **Supervisor.** Remote Paediatric Critical Care Transport Consultations: A Review. 7th World Congress on Pediatric Intensive and Critical Care May 2014. Istanbul, Turkey. Presenter: Tijssen J. (Trainee Presentation).
- Provincial**
- 2015 Jun 9 **Invited Speaker.** Evaluating processes of care & the outcomes of children in hospital (EPOCH) - Update of project underway. Canadian Critical Care Trials Group (CCCTG). Montebello, Quebec, Canada.
- 2015 Jun 9 **Invited Speaker.** InCURS: Intensive Care Unit Resident Scheduling Study First presentation of new project part of existing program. Canadian Critical Care Trials Group (CCCTG). Montebello, Quebec, Canada. Presenter(s): Parshuram, Christopher; Piquette, Dominique.

- 2015 Jan 28 **Invited Speaker.** InCURS - ICU Duty Hours Program. Canadian Critical Care Trials Group (CCCTG). Lake Louise, Alberta, Canada.
- 2014 Jun 10 **Invited Speaker.** 58th Annual Conference of the Canadian Society of Clinical Chemists. Charlottetown, Prince Edward Island, Canada.
- 2014 Jan 29 **Invited Speaker.** ICU residents study (Update of project underway). Canadian Critical Care Trials Group (CCCTG). Lake Louise, Alberta, Canada

## Local

- 2015 Oct 28 **Invited Speaker.** Safety Scientist Experiments. Paediatric Grand Rounds, The Hospital for Sick Children. Toronto, Ontario, Canada.
- 2015 Oct 27 **Session Moderator.** Quality Rounds. Critical Care Canada Forum (CCCF). Toronto, Ontario, Canada. Presenter(s): Parshuram, C; Rose, L.
- 2015 Oct 27 **Invited Speaker.** Early Warning Systems vs Risk Quantification. Critical Care Canada Forum (CCCF). Toronto, Ontario, Canada.
- 2014 Oct 29 – Nov 1 **Invited Speaker.** Critical Care Canada forum (CCCF). Zeroing in on Zero - Setting CCRT Goals; Team Management - Pacing Activity; Shorter Shifts Make Healthier Residents. Toronto, Ontario, Canada.
- 2014 Oct 29 **Invited Speaker.** SickKids Critical Care Alumni Meeting 2014. Early warning systems. Toronto, Ontario, Canada.
- 2014 Oct 24 **Panel Member.** The International Conference on Residency Education, Royal College of Physicians and Surgeons of Canada. Is a tired doctor a safe doctor? Toronto, Ontario, Canada. Presenter: Goldman .
- 2014 Oct 16 **Panel Member.** End of Life Decisions on the PICU. Paediatric Palliative Care Symposium, The Hospital for Sick Children. Toronto, Ontario, Canada.
- 2014 Oct 8 **Invited Speaker.** Patient safety, resident wellbeing and continuity in three resident duty schedules in ICU: a randomized trial. Centre for Quality Improvement and Patient Safety (C-QulPS), The Hospital for Sick Children. Toronto, Ontario, Canada.
- 2014 Sep 11 **Presenter.** Bedside Paediatric Early Warning System. Research Rounds, Department of Critical Care Medicine, The Hospital for Sick Children. Toronto, Ontario, Canada.
- 2014 Aug 7 **Supervisor.** Prospective Study of Vascular Access Device Utilization and Complications: Interim Results. SsURE Program, Research Institute, Hospital for Sick Children. Toronto, Ontario, Canada. Presenters: Kissoon, Randolph. (Trainee Presentation).



2014 Jun

**Supervisor.** Clinical outcomes in children exposed to large volume blood transfusion during ECMO support. UofT CCM Residents Research Day. Toronto, Ontario, Canada. Presenters: E Fernandez-Diaz, R Osborne, M Todd, L Mak, W Lau, N Uppal, L Crawford-Lean, Helena Frndova. (Trainee resenatation).

2014 Feb 28

**Invited Speaker.** Resident Duty Hours. Critical Care Rounds, St. Michael's Hospital. Toronto, Ontario, Canada.

**Dr. Steven Schwartz (Hospital for Sick Children)**

**Peer-reviewed Publications**

**Journal Articles**

Floh A, Mouzaki M, **Schwartz S**, Herridge J, Mtaweh H, Parshuram C. "Can VCO<sub>2</sub>-based estimates of resting energy expenditure replace the need for indirect calorimetry in critically ill children?". *Journal of Parenteral and Enteral Nutrition*. 2015 Dec. In Press. **Coauthor or Collaborator**.

Manlhiot C, Brandão LR, **Schwartz S**, Sivarajan VB, Williams S, Collins TH, McCrindle BW. Management and Outcomes of Patients with Occlusive Thrombosis after Pediatric Cardiac Surgery. *J Pediatr*. 2015 Nov 14. **Coauthor or Collaborator**.

Jean-St-Michel E, Chetan D, **Schwartz S**, Van Arsdell G, Floh A, Honjo O, Conway J. Outcomes in Patients with Persistent Ventricular Dysfunction After Stage 1 Palliation for Hypoplastic Left Heart Syndrome. *Pediatric Cardiology*. 2015 Sep 22:1-9. **Coauthor or Collaborator**.

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

Gaies M, Tabbutt S, **Schwartz S**, Bird GL, Alten JA, Shekerdemian LS, Klugman D, Thiagarajan RR, Gaynor JW, Jacobs JP, Nicolson SC, Donohue JE, Yu S, Pasquali SK, Cooper DS. Clinical Epidemiology of Extubation Failure in the Pediatric Cardiac ICU: A Report From the Pediatric Cardiac Critical Care Consortium. *Pediatr Crit Care Med*. 2015 Jul 24. **Coauthor or Collaborator**.

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Frank W. Moler, M.D., Faye S. Silverstein, M.D., Richard Holubkov, Ph.D., Beth S. Slomine, Ph.D., James R. Christensen, M.D., Vinay M. Nadkarni, M.D., Kathleen L. Meert, M.D., Amy E. Clark, M.S., Brittan Browning, M.S., R.D., C.C.R.C., Victoria L. Pemberton, R.N.C., M.S., Kent Page, M.Stat., Seetha Shankaran, M.D., Jamie S. Hutchison, M.D., Christopher J.L. Newth, M.D., Kimberly S. Bennett, M.D., M.P.H., John T. Berger, M.D., Alexis Topjian, M.D., Jose A. Pineda, M.D., Joshua D. Koch, M.D., Charles L. Schleien, M.D., M.B.A., Heidi J. Dalton, M.D., George Ofori-Amanfo, M.B., Ch.B., Denise M. Goodman, M.D., Ericka L. Fink, M.D., Patrick McQuillen, M.D., Jerry J. Zimmerman, M.D., Ph.D., Neal J. Thomas, M.D., Elise W. van der Jagt, M.D., M.P.H., Melissa B. Porter, M.D., Michael T. Meyer, M.D., Rick Harrison, M.D., Nga Pham, M.D., Adam J. Schwarz, M.D., Jeffrey E. Nowak, M.D., Jeffrey Alten, M.D., Derek S. Wheeler, M. Therapeutic Hypothermia after Out-of-Hospital Cardiac Arrest in Children. *N Engl J Med*. 2015 May 14;372:1898-1908. **Coauthor or Collaborator**.

Floh A, Naksayuki N, La Rotta G, Mah K, Herridge J, Van Arsdell G, **Schwartz S**. Systemic inflammation increases energy expenditure following pediatric cardiopulmonary bypass. *Pediatric Critical Care Medicine*. 2015 May;16(4):343-51. **Senior Responsible Author**.

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Hickey E, Yaroslavna N, Pham-Hung E, Gritti M, **Schwartz S**, Caldarone C, Redington A, Van Arsdell G. National Aeronautics and Space Administration "threat and error" model applied to pediatric cardiac surgery: Error cycles precede ~85% of patient deaths. *The Journal of Thoracic and Cardiovascular Surgery*. 2015 Feb;149(2):496-505. **Coauthor or Collaborator**.

**Schwartz S**, Floh AA. Is this heart going to work? *Pediatr Crit Care Med*. 2014 Nov;15(9). **Principal Author**.

Gaies M, Cooper DS, Tabbutt S, **Schwartz S**, Ghanayem N, Chanani NK, Costello JM, Thiagarajan RR, Laussen PC, Sherkerdemian LS, Donohue JE, Willis GM, Gaynor JW, Jacobs JP, Ohye RG, Charpie JR, Pasquali SK, Scheurer MA. Collaborative quality improvement in the cardiac intensive care unit: Development of the Paediatric Cardiac Critical Care Consortium (PC4). *Cardiology in the Young*. 2014 Aug 28. **Coauthor or Collaborator**.

**Schwartz S**. Management of Atrial And Junctional Ectopic Tachycardia after Pediatric Cardiac Surgery. *Chin J Clin Thorac Cardiovasc Surg*. 2014 Aug;21(4):435-437. **Principal Author**.

McCordle BW, Clarizia NA, Khaikin S, Holtby HM, Manlihot C, **Schwartz S**, Caldarone CA, Coles JG, Van Arsdell GS, Scherer SW, Redington AN. Remote ischemic preconditioning in children undergoing cardiac surgery with cardiopulmonary bypass: a single-center double-blinded randomized trial. *J Am Heart Assoc*. 2014 Jul 28;3(4). **Coauthor or Collaborator**.

Zakova M, Pong S, Trope A, Atenafu EG, Papaioannou V, Bitnun SA, Richardson S, **Schwartz S**, Cox P, Parshuram C, Seto W. Dose derivation of once-daily dosing guidelines for gentamicin in critically ill pediatric patients. *Ther Drug Monit*. 2014 Jun 1;36(3):288-94. **Coauthor or Collaborator**.

**Schwartz S**, Lu M, Ohye RG, Hill KD, Atz AM, Naim MY, Williams IA, Goldberg CS, Lewis A, Pigula F, Manning P, Pizarro C, Chai P, McCandless R, Dunbar-Masterson C, Kaltman JR, Kanter K, Sleeper LA, Schonbeck JV, Ghanayem N, Pediatric Heart Network Investigators. Risk factors for prolonged length of stay after the stage 2 procedure in the single-ventricle reconstruction trial. *J Thorac Cardiovasc Surg*. 2014 Jun 1;147(6):1791-8. **Principal Author**.

**Schwartz S**, Lu M, Ohye RG, Hill KD, Atz AM, Naim MY, Williams IA, Goldberg CS, Lewis A, Pigula F, Manning P, Pizarro C, Chai P, McCandless R, Dunbar-Masterson C, Kaltman JR, Kanter K, Sleeper LA, Schonbeck JV, Ghanayem N for the Pediatric Heart Network Investigators. Risk Factors for Prolonged Length of Stay Following the Stage II Procedure in the Single Ventricle Reconstruction Trial. *J Thorac Cardiovasc Surg*. 2014 Jun;147(6):1791-8. **Principal Author**.

**Schwartz S**. Tattered and Torn: The Life of a RBC on the Extracorporeal Membrane Oxygenation Circuit. *Crit Care Med*. 2014 May 1;42(5):1314-5. **Principal Author**.

Hamilton BCS, Honjo O, Alghamdi AA, Caldarone C, **Schwartz S**, Van Arsdell GS, Holtby H. Efficacy of evolving early-extubation strategy on early postoperative functional recovery in pediatric open-heart surgery: A matched case-control study. *Seminars in Cardiothoracic and Vascular Anesthesia*. 2014 Feb 3;18(3):290-296. **Coauthor or Collaborator**.

### Book Chapters

**Schwartz S**, Slavik Z, Ho SY. Cardiac Anatomy. In: Nichols DG, Shaffner DH., editor(s). *Rogers' Textbook of Pediatric Intensive Care*. 5th. Philadelphia (United States): Lippincott, Williams and Wilkens; 2015. p. 1077-91. **Principal Author**.

Floh AA, Krawczeski CD, **Schwartz S**. Peri-Operative Care of the Child with Congenital Heart Disease. In: Wheeler DS, Wong HS, Shanley TP., editor(s). *Pediatric Critical Care Medicine: Basic Science and Clinical Evidence, 2nd Edition/Volume 3: Peri-operative Care of the Critically Ill or Injured Child*. Ed 2. Volume 4. 2014. **Senior Responsible Author**.

### Editorials

**Schwartz S**. Life in the Fast Lane: Nighttime Extubation in the Pediatric Cardiac Critical Care Unit. *Pediatr Crit Care Med*. 2014 Mar;15(3):276-277. **Principal Author**.

### Comment, Editorials

**Schwartz S**. Life in the fast lane: nighttime extubation in the pediatric cardiac critical care unit\*. *Pediatr Crit Care Med*. 2014 Mar 1;15(3):276-7. **Principal Author**.

### Peer-Reviewed Fundings

- |                     |                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 - 2021         | <b>Co-Investigator</b> . Cardiovascular Physiology and Brain Development in Newborns with Congenital Heart Disease. Canadian Institutes of Health Research (CIHR). PI: Miller Steven, Seed Mike. Collaborator(s): Blaser SI, Brant RF, Chau V, Hickey EJ, Kingdom JC, Ly LG, MacGowan CK, <b>Schwartz SM</b> , Sled JG. \$1,008,289.00 CAD. [Grants] |
| 2015                | <b>Principal Investigator</b> . Multicentre, open -label, does escalation study to evaluate safety, tolerability and pharmacokinetics of RLX030 in addition to standard of care in pediatric patients from birth to <18 years of age, hospitalized with acute heart failure. Novartis AG. [Grants]                                                   |
| 2014 - 2015 Jan     | <b>Mentor</b> . Randomized study of early nutritional delivery on glucose control, insulin resistance and systemic inflammation following pediatric cardiac surgery. Pediatric Heart Network Scholars Grant. Pediatric Heart Network Scholars Grant. PI: Floh AA. \$75,000.00 CAD. [Grants]                                                          |
| 2013 Jul - 2014 Jun | <b>Co-Investigator</b> Improving Precision: Randomized Control Trial of Milrinone Therapeutic Drug Monitoring. Canadian Anesthesiologists' Society. PI: Taylor, Katherine. Collaborators: Parshuram C. \$20,000.00 CAD. [Grants]                                                                                                                     |

- 2012 Jul - 2015 Jun **Co-Applicant.** A Randomized Controlled Trial of Hybrid and Norwood Surgical Strategies for Single Ventricle Congenital Heart Disease. Heart and Stroke Foundation of Canada (HSFC). Grant in Aid. 000277. PI: Caldarone C. Collaborators: Van Arsdell G, Merklinger S, Chaturvedi R, Holtby H, Laughlin S, Sananes R, Guerguerian AM, McCrindle B, Jaeggi E. \$228,234.00 CAD. [Grants]
- 2012 Jul - 2014 Jul **Co-Investigator.** Can sustained post-operative biventricular pacing improve hemodynamics in children with electro-mechanical dyssynchrony after surgical repair of congenital heart disease? Heart and Stroke Foundation of Canada (HSFC). PI: Friedberg M. Collaborators: Stephenson E, Van Arsdell G. \$172,48.001 CAD. [Grants]
- 2011 Jul - 2014 Jun **Principal Investigator.** Glucose Homeostasis and Cardiac Output After Paediatric Cardiac Surgery. Heart and Stroke Foundation of Canada. NA 7834. 195,019 CAD. [Grants]
- 2011 - 2016 **Co-Principal Investigator.** Pediatric Heart Network - The Hospital for Sick Children, Toronto. NIH NHLBI. PI: McCrindle BW, Mital S. Collaborator: Benson L, Brandao L, Caldarone C, Chan A, Gruenwald C, Holtby H, Manlhiot C, Mertens L, Russell J, Sivarajan B, Van Arsdell G, Sananes R. \$7,518,965.00 USD. [Grants]
- 2010 – 2015 **Co-Investigator.** Clinical Assessment of Thrombosis in Children After Heart Surgery: The CATCH Study. Canadian Institutes of Health Research (CIHR). Operating Grant. PI: McCrindle, BW. \$1,514,330.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Dec 5 **Invited Lecturer.** Better Hearts and Brains: Is the ICU the problem and how can we be part of the solution? Evolution or Revolution? Nicklau Children's Hospital - Heart Program. Florida, United States.
- 2015 Nov 9 **Invited Speaker.** Cardiovascular Biomarkers in Pediatric: Marking the future outcomes. American Heart Association. Orlando, Florida, United States.
- 2015 Nov 9 **Invited Speaker.** Biomarkers for the Assessment of low cardiac output after cardiac surgery. American Heart Association. Orlando, Florida, United States.
- 2015 Oct 9 **Invited Speaker.** Avoiding ECMO & CPR: Can we predict who will suffer an acute cardiovascular event? 1st Annual International Cardiology-Neonatal Symposium. Miami, Florida, United States.
- 2015 Oct 9 **Invited Speaker.** Full Feeds in stable term neonates. 1st Annual International Cardiology-Neonatal Symposium. Miami, Florida, United States.

- 2015 Oct 7 **Visiting Professor.** Improving Outcomes in Pediatric Cardiac Care: Small Steps and Big Leaps. Columbia University Medical Centre. New York, United States. 20th Annual Sylvia P Griffiths Lectureship and Teaching Day.
- 2015 Oct **Visiting Professor.** Case Studies in Cardiovascular Physiology in the Cardiac ICU. Columbia University Medical Centre. New York, New York, United States.
- 2015 Sep 15 **Invited Speaker.** Masterclass Programme: How i use haemodynamic monitoring to provide state of the art care. PICS 2015 29th annual Paediatric Intensive Care Society Conference. Birmingham, United Kingdom.
- 2015 Sep 15 **Invited Speaker.** Medical Management of cardiac failure. PICS 2015. Birmingham, United Kingdom..
- 2015 Jul **Invited Research Presentation.** Improving Outcomes in Pediatric Cardiac Care: Small Steps and Big Leaps. Children's Hospital of Wisconsin. Milwaukee, Wisconsin, United States.
- 2015 Mar 28 **Keynote Speaker.** Quality Assurance and avoiding medical error in the PICU. AICS Cardio - AbbVie Infant Care Summit. São Paulo, Brazil.
- 2015 Mar 28 **Keynote Speaker.** Optimizing the Intensive Care Support to the Failing Heart. AICS Cardio - AbbVie Infant Care Summit. São Paulo, Brazil.
- 2015 Mar 13 **Invited Speaker.** Case Studies in the PICU: CV physiology in the PICU. European Postgraduate course in neonatal and pediatric intensive care medicine. Bern (de), Switzerland.
- 2015 Mar 13 **Invited Speaker.** Perioperative stage 1 in hypoplastic left heart syndrome. European Postgraduate course in neonatal and pediatric intensive care medicine. Bern (de), Switzerland.
- 2015 Mar 13 **Invited Speaker.** Residual Left Heart Lesion in the biventricular Circulation. European Postgraduate course in neonatal and pediatric intensive care medicine. Bern (de), Switzerland.
- 2015 Mar 12 **Keynote Speaker.** Total system cardiovascular physiology. European Postgraduate course in neonatal and pediatric intensive care medicine. Bern (de), Switzerland.
- 2014 Dec 14 **Invited Speaker.** Pharmacology of LCOS. PCICS. Miami, Florida, United States.
- 2014 Nov **Invited Speaker.** Update on Neonatal Pediatric Intensive Care. New Drugs! New Helpers? The use of dexmedetomidine in Pediatric Intensive Care; Hemodynamic monitoring in a pediatric intensive care. What is available, what is new. Do we need more?Padua, Italy.

- 2014 Oct **Invited Speaker.** subsets. American Academy of Pediatrics National Conference and Exhibition. HLHS: Current Expectations, risk stratification, are the high risks subsets are what is the correct approach to those. San Diego, California, United States.
- 2014 Sep 23 **Invited Speaker.** Boston's Children Hospital. Acute and Chronic Heart Failure in Children: It's not Just About the Inotropes? Boston, Massachusetts, United States.
- 2014 Sep 12 **Invited Speaker.** Pediatric Heart Failure Summit. Diastolic Dysfunction Early and Late After Surgery -MD Track 2 - Cardiomyopathy in CHD. Cincinnati, Ohio, United States.
- 2014 Mar 6 **Invited Speaker.** The 5th Congress of the Asia Pacific Pediatric Cardiac Society Meeting. What's new in intensive care and how much of it really works?; Post operative care of the regressed LV; Risk factors for CLABSI and sepsis in the PICU; Debate (con): Glycemic control impacts outcomes after pediatric cardiac surgery. New Delhi, India. March 6-9, 2014.
- 2014 Feb **Invited Speaker.** Glycemic control and its importance in the cardiac ICU setting. Cardiology 2014, 17th Annual Update on Pediatric and Congenital Cardiovascular Disease. Lake Buena Vista, Florida, United States. February 19-23, 2014.
- 2014 Feb 19 **Moderator.** Cardiac Intensive Care. Cardiology 2014. 17th Annual Update on Pediatric and Congenital Cardiovascular Disease. Orlando, Florida, United States.
- 2014 Feb 19 **Invited Speaker.** Glycemic control and its importance in the cardiac ICU setting. Cardiology 2014, Orlando, Florida.
- 2014 Jan 25 **Expert Panel Discussion.** Society of Thoracic Surgeons 50th Annual Meeting. Lessons Learned from the Pediatric Heart Network. Orlando, Florida, United States.

## Local

- 2015 Oct **Invited Speaker.** Support of the RV- Intravenous Drugs. The Right Ventricle in Critical Care: A mini symposium in collaboration with the Canadian Cardiovascular Society and the Canadian Anesthesiologists' society. Critical Care Canada Forum 2015. Toronto, Ontario, Canada.
- 2015 Apr 8 **Lecturer.** Extracorporeal Ventricular Support and Management. Sickkids. Toronto, Ontario, Canada.
- 2015 Jan 7 **Invited Speaker.** A heart centre journey to improve outcomes in hypoplastic left heart syndrome. Sickkids. Toronto, Ontario, Canada.
- 2014 Oct 30 **Chair.** Critical Care Canada Forum. Emerging Approaches – Practice in The Next Decade Chair. Toronto, Ontario, Canada.
- 2014 Oct 30 **Moderator.** Critical Care Canada Forum. Cardiac Arrest - Prevention, Detection & Management. Toronto, Ontario, Canada.

- 2014 Jun 6 **Invited Speaker.** The 6th Cardiac Symposium: Non-Structural Heart Disease in Children. PostopSIRS - Can we avoid it? Toronto, Ontario, Canada.
- 2014 Jun 4 **Chair.** The 3rd Toronto RV symposium. Complex Decisions in the Congenitally Malformed RV. Toronto, Ontario, Canada.
- 2014 Apr 26 **Invited Speaker.** American Association for Thoracic Surgery 94th Annual Meeting. Postoperative Management after the Hybrid Stage I. Congenital Heart Surgery Skills Course. Toronto, Ontario.

### **Honours and Awards**

- 2010 Jan - 2015 Jan **The Norine Rose Chair in Cardiovascular Sciences**, Inaugural Chair holder, Labatt Family Heart Centre/The Hospital for Sick Children, Ontario, Canada.



**Dr. Venkatesan Ben Sivarajan (Hospital for Sick Children)**

**Peer-Reviewed Publications**

**Journal Articles**

**Sivarajan B**, Yeh J, Laussen PC, Roth SP. Cardiac Intensive Care. Anesthesia for Congenital Heart Disease. **Principal Author**.

**Peer-Reviewed Funding**

- 2011 Sep - 2016 Sep **Co-Investigator**. Pediatric Heart Network - The Hospital for Sick Children, Toronto. (NIH NHLBI). National Institutes of Health (NIH) (USA). PIs: Schwartz S, McCrindle B, Seema M. Collaborator(s): Benson L, Brandao L, Caldarone C, Chan A, Gruenwald C, Holtby H, Manlhiot C, Mertens L, Russell J Van Arsdell G. Contributor: Sananes R. \$7,518,965.00 USD. [Grants]
- 2010 Sep - 2015 Sep **Co-Investigator**. Clinical Assessment of Thrombosis in Children after Heart surgery: The CATCH Study. Canadian Institutes of Health Research (CIHR). 2010 Operating Grants. MOA106432. PI: McCrindle B. \$1,514,330.00 CAD. [Grants]
- 2009 Jun - present **Principal Investigator**. Changes in Plasma Arginine and DMA in Neonates. The Hospital for Sick Children. Labatt Heart Centre Innovation Fund. \$3,460.00 CAD. [Grants]
- 2008 Apr - present **Principal Investigator**. Impact of Early Enteral Feeding on Splanchnic Blood Flow after Surgery for Critical Heart Disease in the Neonate. The Hospital for Sick Children. Labatt Heart Centre Innovation Fund. Collaborators: MacDonald C, La Rotta G, Caldarone C, Herridge J, Schwartz SM, Wales P. \$34,000.00 CAD. [Grants]

**Invited Lectures and Presentations**

**International**

- 2014 Dec 11-14 **Invited Speaker**. The CICU Environment for Procedural Sedation. Paediatric Intensive Care Society Conference. Miami Beach, Florida, United States.
- 2014 Dec 11-14 **Facilitator**. Session: The Value I See In.... Paediatric Intensive Care Society Conference. Miami Beach, Florida, United States.

**Local**

- 2014 Feb **Invited Speaker**. Organ donation: Special Considerations in Paediatrics. The Trillium Gift of Life Network. Toronto, Ontario, Canada.

**Dr. Neill Adhikari (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Rewa O, Wald R, **Adhikari NK**, Hladunewich M, Lapinsky S, Muscedere J, Bagshaw SM, Smith OM, Lebovic G, Kuint R, Klein DJ. Whole-blood neutrophil gelatinase-associated lipocalin to predict adverse events in acute kidney injury: A prospective observational cohort study. *J Crit Care*. 2015 Dec 1;30(6):1359-64 (Trainee publication, Rewa O). **Coauthor or Collaborator.**

Amaral AC, McDonald A, Coburn NG, Xiong W, Shojania KG, Fowler RA, Chapman M, **Adhikari NK**. Expanding the scope of Critical Care Rapid Response Teams: a feasible approach to identify adverse events. A prospective observational cohort. *BMJ Qual Saf*. 2015 Dec 1;24(12):764-8. **Senior Responsible Author.**

Arabi YM, Cook DJ, Zhou Q, Smith O, Hand L, Turgeon AF, Matte A, Mehta S, Graham R, Brierley K, **Adhikari NK**, Meade MO, Ferguson ND, Canadian Critical Care Trials Group. Characteristics and Outcomes of Eligible Nonenrolled Patients in a Mechanical Ventilation Trial of Acute Respiratory Distress Syndrome. *Am J Respir Crit Care Med*. 2015 Dec 1;192(11):1306-13. **Coauthor or Collaborator.**

Johnston BC, Alonso-Coello P, Friedrich JO, Mustafa RA, Tikkinen KA, Neumann I, Vandvik PO, Akl EA, da Costa BR, **Adhikari NK**, Dalmau GM, Kosunen E, Mustonen J, Crawford MW, Thabane L, Guyatt GH. Do clinicians understand the size of treatment effects? A randomized survey across 8 countries. *CMAJ*. 2015 Oct 26. **Coauthor or Collaborator.**

Wald R, **Adhikari NK**, Smith OM, Weir MA, Pope K, Cohen A, Thorpe K, McIntyre L, Lamontagne F, Soth M, Herridge M, Lapinsky S, Clark E, Garg AX, Hiremath S, Klein D, Mazer CD, Richardson RM, Wilcox ME, Friedrich JO, Burns KE, Bagshaw SM. Comparison of standard and accelerated initiation of renal replacement therapy in acute kidney injury. *Kidney Int*. 2015 Oct 1;88(4):897-904. **Coauthor or Collaborator.**

Fleischmann C, Scherag A, **Adhikari NK**, Hartog CS, Tsaganos T, Schlattmann P, Angus DC, Reinhart K, International Forum of Acute Care Trialists. Assessment of Global Incidence and Mortality of Hospital-treated Sepsis - Current Estimates and Limitations. *Am J Respir Crit Care Med*. 2015 Sep 28. **Coauthor or Collaborator.**

Silver SA, Harel Z, Harvey A, **Adhikari NK**, Slack A, Acedillo R, Jain AK, Richardson RM, Chan CT, Chertow GM, Bell CM, Wald R. Improving Care after Acute Kidney Injury: A Prospective Time Series Study. *Nephron*. 2015 Sep 2;131(1):43-50. **Coauthor or Collaborator.**

Yale P, **Adhikari NK**, Masse V, Fowler RA, Xiong W, McGeer A, Cann D, Rudnick W, Green K, Meade MO, Valiquette L, Lamontagne F. Corticosteroid therapy in critical illness due to seasonal and pandemic influenza. *Can Respir J*. 2015 Sep 1;22(5):271-4 (Trainee publication, Yale P). **Co-Principal Author.**

Kitchlu A, **Adhikari NK**, Burns KE, Friedrich JO, Garg AX, Klein D, Richardson RM, Wald R. Outcomes of sustained low efficiency dialysis versus continuous renal replacement therapy in critically ill adults with acute kidney injury: a cohort study. *BMC Nephrol*. 2015 Aug 4;16:127 (Trainee publication, Kitchlu A). **Coauthor or Collaborator**.

Beckett A, Fowler R, **Adhikari NK**, Hawryluck L, Razek T, Tien H. Medical mentorship in Afghanistan: How are military mentors perceived by Afghan health care providers? *Can J Surg*. 2015 Jun 1;58(3 Suppl 3):S98-103. **Coauthor or Collaborator**.

D'Aragon F, Belley-Cote EP, Meade MO, Lauzier F, **Adhikari NK**, Briel M, Lalu M, Kanji S, Asfar P, Turgeon AF, Fox-Robichaud A, Marshall JC, Lamontagne F, Canadian Critical Care Trials Group. Blood pressure targets for vasopressor therapy: a systematic review. *Shock*. 2015 Jun 1;43(6):530-9. **Coauthor or Collaborator**.

Wald R, McArthur E, **Adhikari NK**, Bagshaw SM, Burns KE, Garg AX, Harel Z, Kitchlu A, Mazer CD, Nash DM, Scales DC, Silver SA, Ray JG, Friedrich JO. Changing incidence and outcomes following dialysis-requiring acute kidney injury among critically ill adults: a population-based cohort study. *Am J Kidney Dis*. 2015 Jun 1;65(6):870-7. **Coauthor or Collaborator**.

Cohen J, Vincent JL, **Adhikari NK**, Machado FR, Angus DC, Calandra T, Jaton K, Giulieri S, Delaloye J, Opal S, Tracey K, van der Poll T, Pelfrene E. Sepsis: a roadmap for future research. *Lancet Infect Dis*. 2015 May 1;15(5):581-614. **Coauthor or Collaborator**.

Duggal A, Ganapathy A, Ratnapalan M, **Adhikari NK**. Pharmacological treatments for acute respiratory distress syndrome: systematic review. *Minerva Anesthesiol*. 2015 May 1;81(5):567-88 (Trainee publication, Duggal A, Ganapathy A, Ratnapalan M.). **Senior Responsible Author**.

Fowler RA, Abdelmalik P, Wood G, Foster D, Gibney N, Bandrauk N, Turgeon AF, Lamontagne F, Kumar A, Zarychanski R, Green R, Bagshaw SM, Stelfox HT, Foster R, Dodek P, Shaw S, Granton J, Lawless B, Hill A, Rose L, **Adhikari NK**, Scales DC, Cook DJ, Marshall JC, Martin C, Jovet P, Canadian Critical Care Trials Group and The Canadian ICU Capacity Group. Critical care capacity in Canada: results of a national cross-sectional study. *Crit Care*. 2015 Apr 1;19(1):133. **Coauthor or Collaborator**.

Cook DJ, Ferguson ND, Hand L, Austin P, Zhou Q, **Adhikari NK**, Danesh V, Arabi Y, Matte AL, Clarke FE, Mehta S, Smith O, Wise MP, Friedrich JO, Keenan SP, Hanna S, Meade MO, OSCILLation for ARDS Treated Early Investigators, Canadian Critical Care Trials Group. Coenrollment in a randomized trial of high-frequency oscillation: prevalence, patterns, predictors, and outcomes. *Crit Care Med*. 2015 Feb 1;43(2):328-38. **Coauthor or Collaborator**.

Murthy S, Leligdowicz A, **Adhikari NK**. Intensive care unit capacity in low-income countries: a systematic review. *PLoS One*. 2015 Jan 24;10(1):e0116949 (Trainee publication, Leligdowicz, A.). **Senior Responsible Author**.

Silver SA, Goldstein SL, Harel Z, Harvey A, Rompies EJ, **Adhikari NK**, Acedillo R, Jain AK, Richardson R, Chan CT, Chertow GM, Bell CM, Wald R. Ambulatory care after acute kidney injury: an opportunity to improve patient outcomes. *Can J Kidney Health Dis*. 2015 Jan 1;2:36 (Trainee publication, Silver SA). **Coauthor or Collaborator**.

Wald R, McArthur E, **Adhikari NK**, Bagshaw SM, Burns KE, Garg AX, Harel Z, Kitchlu A, Mazer CD, Nash DM, Scales DC, Silver SA, Ray JG, Friedrich JO. Changing Incidence and Outcomes Following Dialysis-Requiring Acute Kidney Injury Among Critically Ill Adults: A Population-Based Cohort Study. *Am J Kidney Dis*. 2014 Dec 17. **Coauthor or Collaborator**.

Shankar-Hari M, Donnelly A, Pinto R, Salih Z, McKenzie C, Terblanche M, **Adhikari N.K**. The influence of statin exposure on inflammatory markers in patients with early bacterial infection: pilot prospective cohort study. *BMC Anesthesiol*. 2014 Nov 19;14:106. **Senior Responsible Author**.

Silversides JA, Pinto R, Kuint R, Wald R, Hladunewich MA, Lapinsky SE, **Adhikari NK**. Fluid balance, intradialytic hypotension, and outcomes in critically ill patients undergoing renal replacement therapy: a cohort study. *Crit Care*. 2014 Nov 18;18(6):624. **Senior Responsible Author**.

Cook DJ, Ferguson ND, Hand L, Austin P, Zhou Q, **Adhikari NK**, Danesh V, Arabi Y, Matte AL, Clarke FE, Mehta S, Smith O, Wise MP, Friedrich JO, Keenan SP, Hanna S, Meade MO, for the OSCILLation for ARDS Treated Early Investigators and the Canadian Critical Care Trials Group. Coenrollment in a Randomized Trial of High-Frequency Oscillation: Prevalence, Patterns, Predictors, and Outcomes. *Crit Care Med*. 2014 Nov 12. **Coauthor or Collaborator**.

Da Luz LT, Nascimento B, Shankarakutty AK, Rizoli S, **Adhikari NK**. Effect of thromboelastography (TEG®) and rotational thromboelastometry (ROTEM®) on diagnosis of coagulopathy, transfusion guidance and mortality in trauma: descriptive systematic review. *Crit Care*. 2014 Sept 27;18(5):518. **Senior Responsible Author**.

Kudlow P, Burns KE, **Adhikari NK**, Bell B, Klein DJ, Xie B, Friedrich JO, Wald R. Inter-hospital transfers and outcomes of critically ill patients with severe acute kidney injury: a multicenter cohort study. *Crit Care*. 2014 Sept 17;18(5):513. **Coauthor or Collaborator**.

Vukoja M, Riviello E, Gavrilovic S, **Adhikari NK**, Kashyap R, Bhagwanjee S, Gajic O, Kilickaya O, CERTAIN Investigators. A survey on critical care resources and practices in low- and middle-income countries. *Glob Heart*. 2014 Sept 1;9(3): 337-342.e5. **Coauthor or Collaborator**.

Sud S, Friedrich JO, **Adhikari NK**, Taccone P, Mancebo J, Polli F, Latini R, Pesenti A, Curley MA, Fernandez R, Chan MC, Beuret P, Voggenreiter G, Sud M, Tognoni G, Gattinoni L, Guérin C. Effect of prone positioning during mechanical ventilation on mortality among patients with acute respiratory distress syndrome: a systematic review and meta-analysis. *CMAJ*. 2014 Jul 8;186(10):E381-90. **Coauthor or Collaborator**.

Goligher EC, Kavanagh BP, Rubenfeld GD, **Adhikari NK**, Pinto R, Fan E, Brochard LJ, Granton JT, Mercat A, Richard JC, Chretien JM, Jones GL, Cook DJ, Stewart TE, Slutsky AS, Meade MO, Ferguson ND. Oxygenation Response to PEEP Predicts Mortality in ARDS: A Secondary Analysis of the LOVS and ExPress Trials. *Am J Respir Crit Care Med*. 2014 Jul 1;190(1):70-6. **Coauthor or Collaborator**.

Duggal A, Ganapathy A, Ratnapalan M, **Adhikari NK**. Pharmacological treatments for acute respiratory distress syndrome: systematic review. *Minerva Anesthesiol*. 2014 Jun 17. **Senior Responsible Author**.

Wald R, Shariff SZ, **Adhikari NK**, Bagshaw SM, Burns KE, Friedrich JO, Garg AX, Harel Z, Kitchlu A, Ray JG. The association between renal replacement therapy modality and long-term outcomes among critically ill adults with acute kidney injury: a retrospective cohort study. *Crit Care Med*. 2014 Apr 1; 42(4):868-77. **Coauthor or Collaborator**.

Koczmara CK, St-Arnaud C, Martinez HQ, **Adhikari NK**, Meade M, Bérard D, Leclair MA, Hyland S, Côté L, Torres E, Fontaine L, Béland F, Martel A, Samson S, Dubreuil J, Lagueux G, Lamarre P, Langevin C, Lamontagne F. Vasopressor stewardship: a case report and lesson shared. *Dynamics*. 2014 Mar;25 (1);26-9. **Coauthor or Collaborator**.

Austin S, Murthy S, Wunsch H, **Adhikari NK**, Karir V, Rowan K, Jacob ST, Salluh J, Bozza FA, Du B, An Y, Lee B, Wu F, Nguyen YL, Oppong C, Venkataraman R, Velayutham V, Dueñas C, Angus DC, International Forum of Acute Care Trialists. Access to urban acute care services in high- vs. middle-income countries: an analysis of seven cities. *Intensive Care Med*. 2014 Mar 1;40(3); 342-52. **Coauthor or Collaborator**.

Burns KE, Meade MO, Premji A, **Adhikari NK**. Noninvasive ventilation as a weaning strategy for mechanical ventilation in adults with respiratory failure: a Cochrane systematic review. *CMAJ*. 2014 Feb 8;186(3);E112-22. **Senior Responsible Author**.

**Adhikari NK**, Dellinger RP, Lundin S, Payen D, Vallet B, Gerlach H, Park KJ, Mehta S, Slutsky AS, Friedrich JO. Inhaled nitric oxide does not reduce mortality in patients with acute respiratory distress syndrome regardless of severity: systematic review and meta-analysis. *Critical Care Medicine*. 2014 Feb;42(2);404-12. **Principal Author**.

## **Abstracts**

Leligdowicz A, Murthy S, **Adhikari NK**. Critical care capacity in low-income countries: a systematic review *Crit Care Med*. 2014 Dec;42(12);A1394. **Senior Responsible Author**.

Wald R, **Adhikari NK**, Pope KL, Smith OM, Weir MA, Bagshaw SM Standard versus Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury. *J Am Soc Nephrol*. 2014 Nov;25;B4. **Coauthor or Collaborator**.

Silver SA, Harel Z, Harvey AK, Slack A, **Adhikari NK**, Bell C, Wald R. An Acute Kidney Injury Follow-Up Clinic: Initial Experience. *J Am Soc Nephrol*. 2014 Nov;25;635A. **Coauthor or Collaborator**.

Duan EH, **Adhikari NK**, D'Aragon F, Hand L, Austin P, Al-Hazzani W, Fox-Robichaud A, Cook DJ, Ferguson N, Meade MO. Availability of ARDS therapies and protocols in Canadian ICUs. 2014 Oct 28. **Coauthor or Collaborator**.

Amaral A, McDonald A, Coburn N, Xiong W, Fowler R, Chapman M, Shojania K, **Adhikari NK**. Expanding the scope of critical care rapid response teams: a feasible approach to identify preventable adverse events that cause harm. *Intensive Care Medicine*. 2014 Oct;40(Suppl 1);S17. **Senior Responsible Author**.

Herridge MS, Chu LM, Matte AL, Chan L, Tomlinson G, Ferguson ND, Mehta S, Friedrich J, **Adhikari NK**, Fowler R, Lamontagne F, Rudkowski JC, Meggison H, Ayas N, Skrobik Y, Batt J, Dos Santos C, Flannery J, Abbey S, Rubenfeld GD, Scales DC, Sinuff T, Cuthbertson B, Fan E,

Slutsky AS, Leung G, Moody A, Levasseur M, Bayley M, Lee C, Lo V, Mathur S, Tan A, Tansey C, Wilcox ME, Marshall JC, Cook DJ, Cameron JI. Long-Term Patient Outcomes After Prolonged Mechanical Ventilation: The Towards RECOVER Study. *Am J Respir Crit Care Med* 2014 May;89(A3879). **Coauthor or Collaborator.**

Cameron JI, Chan L, Czerwonka A, Chu LM, Matte AL, Tomlinson G, Thomas C, Ferguson ND, Mehta S, Friedrich J, **Adhikari N**, Fowler R, Lamontagne F, Rudkowski JC, Meggison H, Ayas N, Skrobik Y, Batt JA, Dos Santos C, Flannery J, Abbey S, Rubenfeld GD, Scales DC, Sinuff T, Cuthbertson B, Fan E, Slutsky AS, Levasseur M, Bayley M, Lee C, Lo V, Mathur S, Tan A, Wilcox ME, Marshall JC, Cook DJ, Herridge MS, Canadian Critical Care Trials Group. Caregiver Well-being is Dependent on Caregiver Mastery, Social Support, and Participation in Valued Activities: Towards RECOVER Study. *Am J Respir Crit Care Med*. 2014 May;189(A1144). **Coauthor or Collaborator.**

Lamontagne F, Bosma K, **Adhikari N**, Friedrich J, Silversides J, Sanchez J, Wise M, Arrogli A, Arabi YM, Charbonney E, Lazosky L, Granton JT, Ferguson ND, Meade MO. Changes In MAP And Vasopressors Predict Mortality In Oscillation For ARDS. Data From The OSCILLATE Trial *Am J Respir Crit Care Med*. 2014 May;189(A1172). **Coauthor or Collaborator.**

Arabi YM, Cook DJ, Smith O, Hand L, **Adhikari N**, Zhou Q, Turgeon A, Matte AL, Mehta S, Graham R, Brierly K, Ferguson ND, Meade M. Characteristics and Outcomes of Eligible **Non-enrolled** Patients in the OSCILLATE Trial. *Am J Respir Crit Care Med*. 2014 May: A4465. **Coauthor or Collaborator.**

Cook DJ, Hand L, Austin P, Zhou Q, Danesh V, **Adhikari N**, Arabi YM, Mehta S, Clarke F, Matte AL, Smith O, Wise M, Keenan S, Friedrich JO, Hanna S, Ferguson ND, Meade M. Coenrolment In A Randomized Trial Of High Frequency Oscillation In ARDS: Prevalence, Patterns And Predictors. *Am J Respir Crit Care Med*. 2014 May. A2542. **Coauthor or Collaborator.**

## **Book Chapters**

Murthy S, Sayeed SA, **Adhikari NK**. Critical care in low-resource settings. In: Scales DC, Rubenfeld GD, editor(s). *The Organization of Critical Care: An Evidence-Based Approach to Improving Quality*. Oxford (United Kingdom): Springer; 2014. p. 247-260. **Senior Responsible Author.**

**Adhikari NK**. Critical illness and long-term outcomes worldwide. In: Stevens RD, Hart N, Herridge MS, editor(s). *Textbook of Post-ICU Medicine: The Legacy of Critical Care*. Oxford (United Kingdom): Oxford University Press; 2014. p. 5-17. **Principal Author.**

## **Editorials**

McCredie VA, Adhikari NK. Early tracheostomy in critically ill patients: still too fast. *Lancet Respir Med*. 2015 Feb 1;3(2):95-6. **Senior Responsible Author.**

## WHO interim guidance document

World Health Organization. Clinical management of severe acute respiratory infections when Middle East respiratory syndrome coronavirus (MERS-CoV) is suspected: interim guidance. 2015 Jul 2. Available from: [http://www.who.int/csr/disease/coronavirus\\_infections/case-management-ipc/en/](http://www.who.int/csr/disease/coronavirus_infections/case-management-ipc/en/). **Acknowledged in Publication (Not Author)**.

## Peer-Reviewed Funding

- 2015 Oct - 2016 Sep **Co-Investigator.** Delivery of supportive care during an Ebola outbreak: defining minimal requirements and identifying barriers and facilitators towards creating international guidelines. Canadian Institutes of Health Research (CIHR). Innovative Ebola Research Grants. PI: Lamontagne, Francois. Collaborator(s): Bah E, Chan A, Clement C, Couturier F, Fowler R, Guyatt G, Hudon C, Lamah M, Mishra S, Murthy S. \$247,570.00 CAD. [Grants]
- 2015 Oct - 2016 Sep **Co-Investigator.** Gone, but not forgotten: A prospective cohort study to characterize the health effects of post-Ebola syndrome on survivors of Ebola Virus Disease in West Africa. Canadian Institutes of Health Research (CIHR). Innovative Ebola Research Grants. PI: Chan, Adrienne. Collaborator(s): Fowler RA, Mishra S, Glynn J, Hajek J, Lamontagne F, Murthy S, Vanderschuren A. \$250,000.00 CAD. [Grants]
- 2015 Oct - 2016 Sep **Co-Principal Investigator.** Establishing Feasibility & Safety of Providing Critical Care for Patients with Ebola through design of a simulated Ebola Treatment Centre. Canadian Institutes of Health Research (CIHR). Innovative Ebola Research Grants. PI: Fowler, R.A. Collaborator(s): Bah E, Chan A, Clement C, Christian M, Hajek J, Hall T, Lamah M, Lamontagne F, Marshall J, Mishra S, Murthy S, Piquette D, Simor A, Vanderschuren A. \$249,973.00 CAD. [Grants]
- 2015 Jul - 2020 Jun **Co-Investigator.** The NEUROlogically-impaired extubation Timing Trial (NEURO-ETT). Canadian Institutes of Health Research (CIHR). Operating Grant. PI: Scales D, Ferguson N. Collaborator(s): Alali A S, Baker AJ, Bosma KJ, Brochard L, Chapman M, Charbonney E, Cuthbertson B, Fowler RA, Griesdale D, Mainprize T, McCredie V, Meade M, Nathens A, Rubenfeld G, Seely AJ, Singh J, Turgeon A, Wilcox ME, Zygun D. \$880,404.00 CAD. [Grants]

2015 Jul - 2019 Jun	<p><b>Co-Investigator.</b> STandard versus Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury (STARRT-AKI). Canadian Institutes of Health Research (CIHR). Operating Grant. PI: Wald, Ron; Bagshaw, Sean. Collaborator(s): Adhikari, Neill K; Bellomo, Rinaldo; Burns, Karen E; Cailhier, Jean-Francois; Chawla, Lakhmir; Dodek, Peter M; Friedrich, Jan; Garg, Amit; Herridge, Margaret S; Hiremath, Swapnil; Lamontagne, Francois; Lapinsky, Stephen E; Manns, Braden J; Mazer, David; McGuinness, Shay; Mcintyre, Lauralyn A; Muscedere, John; Ostermann, Marlies; Palevsky, Paul M; Pettilä, Ville; Smith, Orla M; Soth, Mark D; Stelfox, Henry T; Thorpe, Kevin E; Turgeon, Alexis F; Weir, Matthew A; Wilcox, Mary E. \$1,177,472.00 CAD. [Grants]</p>
2015 May - 2017 Apr	<p><b>Principal Investigator.</b> An Acute Kidney Injury Follow-up Clinic to Improve Care Continuity and Outcomes: A Pilot Randomized Controlled Trial. Sunnybrook Health Sciences Centre (Toronto, ON). 2014-2015 Sunnybrook AFP Innovation Fund. Collaborator(s): Zahirieh, A. \$39,805.00 CAD. [Grants]</p>
2015 Apr - 2019 Mar	<p><b>Co-Investigator.</b> STandard versus Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury (STARRT-AKI). Canadian Institutes of Health Research (CIHR). Operating Grant: Industry-partnered Collaborative Research. PI: Wald, Ron; Bagshaw, Sean. \$220,995.00 CAD. [Grants]</p>
2015 Apr - 2019 Mar	<p><b>Co-Investigator.</b> STandard versus Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury (STARRT-AKI). Baxter Healthcare Corporation. Operating Grant: Industry-partnered Collaborative Research. PI: Wald, Ron; Bagshaw, Sean. \$883,976 .00CAD. [Grants]</p>
2014 Nov – 2015 Oct	<p><b>Co-Investigator.</b> Cough augmentation techniques to optimize weaning success and prevent reintubation for critically ill patients. Canadian Institutes of Health Research (CIHR). PI: Rose, Louise. \$80,000.00 CAD. [Grants]</p>
2014 Oct – 2015 Sept	<p><b>Co-Investigator.</b> STandard versus Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury (STARRT-AKI). Canadian Institutes of Health Research (CIHR). PIs: Wald R, Bagshaw S.\$100,000.00. [Grants]</p>
2014 Sept – 2015 Aug	<p><b>Co-Principal Investigator.</b> Development of an introductory e-learning course on clinical research methods and quality improvement for the Toronto-Addis Ababa Academic Collaboration. University of Toronto. \$20,000.00 CAD. [Grants]</p>



- 2013 Nov – 2014 Jul **Knowledge User.** Antipsychotics for management of delirium - A systematic review. Technology Evaluation in the Elderly Network. PI: Burry L. \$49,987.00 CAD. [Grants]
- 2013 Mar – 2015 Mar **Co-Investigator.** OPTIMAL Selection for and Timing to Start Renal Replacement in Critically Ill Older Patients with Acute Kidney Injury (OPTIMAL-AKI). Technology Evaluation in the Elderly Network. PIs: Wald R, Bagshaw S. \$384,087.00 CAD. [Grants]
- 2009 Jul – 2014 Jun **Co-Investigator.** OSCILLation for ARDS Treated Early. (OSCILLATE) Trial. Canadian Institutes of Health Research (CIHR). PIs: Meade M, Ferguson N. \$3,791,391.00 CAD. [Grants]

## Invited Lectures and Presentations

### International

- 2015 Oct 3 **Presenter.** Communicating the magnitude of treatment effect: a survey of clinicians in eight countries. 23rd Cochrane Colloquium. Vienna, Austria. Presenter(s): Johnson BC.
- 2015 May 20 **Invited Speaker.** The Economics of Critical Care in an Era of\_ Cost Containment, Performance Measures\_ and Public Reporting. American Thoracic Society International Conference. Denver, Colorado, United States. Presented in session “ICU staffing and management: looking toward the future”.
- 2015 May 19 **Facilitator.** Thematic Poster Session “Refining quality and communication in the ICU”. American Thoracic Society International Conference. Denver, Colorado, United States.
- 2015 May 17 **Facilitator.** Thematic Poster Session “ARDS: risk, treatment, and outcomes”. American Thoracic Society International Conference. Denver, Colorado, United States.
- 2015 May **Presenter.** ARDS treatment strategies and protocols: availability in 25 tertiary care ICUs. American Thoracic Society International Conference. Denver, Colorado, United States. Presenter(s): Duan EH.
- 2015 May **Presenter.** The Optimal VAsopressor Titration (OVATION) Pilot Randomized Controlled Trial. American Thoracic Society International Conference. Denver, Colorado, United States. Presenter(s): Seeley A.
- 2015 May **Presenter.** The RECOVER Program: One-Year Disability in Critically Ill Patients Mechanically Ventilated (MV) for 7 Days. American Thoracic Society International Conference. Denver, Colorado, United States. Presenter(s): Herridge MS

2015 Mar 16 **Presenter.** Global burden of sepsis: a systematic review [abstract]. International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium. Presenter(s): Fleischmann C.

2014 Aug 14 **Visiting Professor.** Mayo Clinic. Critical care in low--resource settings. Rochester, Minnesota, United States.

### Local

2015 Nov 18 **Invited Speaker.** AKI in cardiogenic shock. University of Toronto combined Critical Care-Nephrology rounds. Toronto, Ontario, Canada.

2015 Oct 28 **Invited Speaker.** Sepsis in Africa: Clarifying What We Know. Critical Care Canada Forum. Toronto, Ontario, Canada. Presented in session "International Critical Care".

2015 Jun 19 **Invited Speaker.** Ebola: observations from the front line. 2015 Critical Challenges Conference. Toronto, Ontario, Canada.

2015 May 27 **Invited Speaker.** The where of research: not always here! Sunnybrook Department of Critical Care Medicine Grand Rounds: the gathering.

2014 Oct 31 **Invited Speaker.** Critical Care Canada Forum. Clinical evidence for use: adults Presented in session "Inhaled Nitric Oxide". Toronto Ontario, Canada.

2014 Oct 15 **Invited Speaker.** SHSC Department of Critical Care Medicine Grand Rounds: the gathering OSCILLATE - an end to early HFO? Toronto Ontario, Canada.

2014 Oct 15 **Invited Speaker.** OSCILLATE - an end to early HFO? Sunnybrook Department of Critical Care Medicine Grand Rounds: the gathering. Toronto, Ontario, Canada.

2014 Jun 19 **Invited Speaker.** ECLS: the data. Schulich Heart Centre Update 2014 for Nurses and Technologists. Toronto, Ontario, Canada.

2014 Jun 5 **Invited Speaker.** 2014 Critical Challenges Conference Treating refractory hypoxemia in 2014: ECLS is the best choice for our patients! Toronto Ontario, Canada.

2014 Apr 16 **Invited Speaker.** SHSC Department of Critical Care Medicine Grand Rounds. ECLS - coming soon to Sunnybrook? Toronto Ontario, Canada.

2014 **Invited Speaker.** SHSC Department of Critical Care Medicine Grand Rounds. What's new in ICU research. Toronto Ontario, Canada.

**Dr. Andre Amaral (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Haas B, Gotlib Conn L, Rubenfeld GD, Scales D, **Amaral AC**, Ferguson ND, Nathens AB. "It's Parallel Universes": An Analysis of Communication Between Surgeons and Intensivists. *Crit Care Med*. 2015 Jul 15;43(10):2147-54. **Coauthor or Collaborator**.

**Amaral AC**, McDonald A, Coburn NG, Xiong W, Shojania KG, Fowler RA, Chapman M, Adhikari NK. Expanding the scope of Critical Care Rapid Response Teams: a feasible approach to identify adverse events. A prospective observational cohort. *BMJ Qual Saf*. 2015 Jun 8. [Epub ahead of print]. **Principal Author**.

Detsky ME, Ailon J, Weinerman AS, **Amaral AC**, Bell CM. A Two-site Survey of Clinicians to Identify Practices and Preferences of Intensive Care Unit Transfers to General Medical Wards. *J Crit Care*. 2015 Apr;30(2):358-62. **Coauthor or Collaborator**.

Conn LG, Haas B, Coburn N, Cuthbertson BC, **Amaral, AC**, Nathens A. Communication and culture in the Surgical Intensive Care Unit: Boundary production and the improvement of patient care. *Qualitative Health Research*. 2015. In Press. **Coauthor or Collaborator**.

**Amaral AC**, Fowler R, Pinto R, Rubenfeld G, Ellis P, Bookatz B, Marshall J, Martinka G, Keenan S, Laporta D, Roberts D, Kumar A, and the Cooperative Antimicrobial Therapy of Septic Shock (CATSS) Database Research Group Patient and organizational factors associated with delays in antimicrobial therapy for septic shock. *Critical Care Medicine*. 2014 Oct. **Principal Author**.

**Amaral AC**, Barros BS, Barros CC, Innes C, Pinto R and Rubenfeld GD. Nighttime cross-coverage is associated with decreased intensive care unit mortality. A single-center study. *Am J Respir Crit Care Med*. 2014 Jun 1;189(11):1395-1401. **Principal Author**.

**Amaral AC**, Holder MW. Timing of antimicrobial therapy after identification of ventilator-associated condition is not associated with mortality in patients with ventilator-associated pneumonia: a cohort study. *PLoS One*. 2014 May 19;9(5)e97575. **Principal Author**.

Detsky M, **Amaral AC**, Bell C. A Two-site Survey of Clinicians to Identify Practices and Preferences of Intensive Care Unit Transfers to General Medical Wards. *Journal of Critical Care*. 2014. **Coauthor or Collaborator**.

**Amaral AC**, McDonald A, Coburn N, Xiong W, Shojania K, Fowler R, Chapman M; Adhikari N. Expanding the scope of Critical Care Rapid Response Teams: a feasible approach to identify preventable adverse events that cause harm. *BMJ Quality and Safety*. 2014. **Principal Author**.

**Abstracts**

Walter G, Duncan B, Harrington H, Kure L, **Amaral AC**. A Quality Improvement Project to Decrease Non-Value Blood Work in Critical Care. University of Toronto Centre for Quality Improvement and Patient Safety (C-QulPS) Symposium. 2014 Oct. **Senior Responsible Author**.

Walter G, Duncan B, Harrington H, Kure L, **Amaral AC**. A Quality Improvement Project to Decrease Non-Value Blood Work in Critical Care. CACCN. 2014 Oct. **Senior Responsible Author**.

McCreath G, **Amaral AC**. A simplified screening algorithm to monitor compliance with lung protective ventilation in ARDS. ESICM. 2014 Sept. **Senior Responsible Author**.

Dutra M, Monteiro MV, Ribeiro K, Schettino GPP, **Amaral AC**. Handoffs in the ICU: interobserver agreement between the physician staff on diagnosis and goals between daytime and nighttime intensivists. ESICM. 2014 Sept. **Senior Responsible Author**.

Au A, Duncan B, Barnes M, Russell J, Holmes N, Azarcon M, Adamson M, Gurau D, **Amaral AC**. Errors Are Part of Being Human, But Should We Accept The Cost Of Medication Errors To Patients/Families? CACCN. 2014 Aug. **Senior Responsible Author**.

Au A, Thomas B, McMillan L, Escalona P, Duncan B, Holmes N, **Amaral AC**. Preparing Patient/Family for Transfer Out of ICU. CACCN. 2014 Aug. **Senior Responsible Author**.

Walter G, Duncan B, Harrington H, Kure L, **Amaral AC**. A Quality Improvement Project to Decrease Non-Value Blood Work in Critical Care. CACCN. 2014 Aug. **Senior Responsible Author**.

### **Book Chapter**

**Amaral AC**. Facilitating Interactions Between Healthcare Providers in the ICU. The Organization of Critical Care, Respiratory Medicine. 2014. Chapter 8. **Principal Author**.

### **Editorials**

**Amaral, AC**. The Intensivist Effect: Three Variables + Two Papers + One Cohort = ? Crit Care Med. 2015;43. In Press. **Principal Author**.

### **Peer-Reviewed Funding**

2015 Jul - 2016 Jun **Co-Investigator**. A National Strategy on Quality of Care Research and Evaluation - With the Patient for the Patient. CIHR. Planning and Dissemination Grant- Institute Community Support. PI: Hebert, Paul. Collaborator(s): Amaral, Andre C; Bagshaw, Sean M; Chasse, Michael; Debigaré, Sylvie; Dodek, Peter M; Lamontagne, Francois; Martin, Claudio M; Muscedere, John; Scales, Damon C; Turgeon, Alexis F. \$25,000.00 CAD. [Grants]

2014 Apr – 2016 Mar **Principal Investigator**. Therapeutic Alliance in the ICU: Enhanced Information to Facilitate Decision-Making. AFP Association. Collaborator(s): Piquette D, Gotlib L, Walter G, Downar J, Taylor P. \$99,945.00 CAD. [Grants]

- 2013 Jul – 2014 Jul **Principal Investigator.** Understanding information corruption in intensive care units. University of Toronto. Collaborator(s): Levinson W, Piquette D, Christianson M. \$19,075.00 CAD. [Grants]
- 2012 Mar – 2014 Feb **Co-Investigator.** Sepsis: Early antibiotics and resuscitation to control infected patients in Emergency Departments (SEARCHED Study). Association of Fundraising Professionals (AFP). PI: Hayes Chris. Collaborator(s): Bandiera G, Gray S, Barratt L, Gaunt K, Baker A, Amaral A, Lee J. \$82,455.00 CAD. [Grants]
- 2013 Jul – 2015 Jul **Co-Investigator.** Bridging the gap: Implementing a complex intervention to improve communication and collaboration between surgeons and intensivists in a closed Intensive Care Unit. AFP.. PI: Nathens. Collaborator(s): Cuthbertson B, Coburn N, Nusdorfer L, Amaral A, Gotlib L, Betts M, Haas B. \$92,126.00 CAD [Grants]
- 2013 Mar – 2014 Mar **Principal Investigator.** Designing Protocols with Engineering Expertise (DEEPER Study). PSI. Collaborator(s): Jeon J, Chagpar A, Schmidt M, ; Cuthbertson B, Scales D. \$148,251.25 CAD. [Grants]

## Invited Lectures and Presentations

### Provincial

- 2014 Sept **Presenter.** The Canadian Association of Critical Care Nurses: CACCN Conference. Anita Au, RN, MN, CNCC(C); Barb Duncan, RN, BScN; Maria Barnes, Jonathan Russell, RN; Nicky Holmes, RN, MN; Michelle Azarcon, RN Melissa Adamson, RN, BScN; Dara Gurau. Errors Are Part of Being Human, But Should We Accept The Cost Of Medication Errors To Patients/Families? Poster. Quebec, Quebec City.
- 2014 Sept **Presenter.** The Canadian Association of Critical Care Nurses: CACCN Conference. Anita Au, RN, MN, CNCC(C); Biji Thomas, BScN, RN; Liseth McMillan, BScN, RN; Peggy Escalona, BScN, RN; Barb Duncan, BScN, RN; Nicky Holmes, RN, MN. Preparing Patient/Family for Transfer Out of ICU. Quebec, Quebec City.

### Local

- 2015 Oct 28 **Invited Speaker.** A Quality Measure? Critical Care Canada Forum. Toronto, Ontario, Canada. Presenter(s): Amaral, A. Current Concepts in VAP Session.
- 2015 Oct 27 **Moderator.** Critical Care Systems I - The W.J. Sibbald Symposium. Critical Care Canada Forum. Toronto, Ontario, Canada. Presenter(s): Amaral, A.

- 2015 Oct 26      **Invited Speaker.** Therapeutic Alliance with Families. Critical Care Canada Forum. Toronto, Ontario, Canada. Presenter(s): Amaral, A. Communicating with Families Session.
- 2014 Sept 11     **Invited Speaker.** Sunnybrook Health Sciences Centre. Expanding the scope of Rapid Response Teams: A feasible approach to identify preventable adverse events that cause harm. Toronto, Ontario, Canada.

### **Honours and Awards**

- 2014 Oct            Honorable Mention Poster Award. Centre for Quality Improvement and Patient Safety, 6th Annual U of T C-QulPS Symposium. A Quality Improvement Project to Decrease Non-Value Blood Work in Critical Care.

**Dr. Martin Chapman (Sunnybrook Hospital)**

**Peer-Reviewed Publication**

**Journal Article**

Botting MJ, Phan N, Rubenfeld GD, Speke AK, **Chapman MG**. Using Barriers Analysis to Refine a Novel Model of Neurocritical Care. *Neurocritical Care*. 2014 Feb 1. 20(1):5-14. **Senior Responsible Author.**

**Peer-Reviewed Funding**

2014 Apr – 2014 Mar **Co-Investigator.** The Multidisciplinary Tracheostomy Team: An Observational Before and After Cohort Study. Canada's Academic Health Sciences Centres (AHSC). \$99,788.00 CAD. [Grants]

**Invited Lectures and Presentations**

**International**

2014 Dec 17 **Presenter.** Escalation of Care: Enhancing early recognition of clinical deterioration, followed by prompt and effective response. Institute For Healthcare Improvement 26th Annual National Forum 2014. Orlando, Florida, United States. Presenter: Hall T.

2014 Sept 27 **Presenter.** Expanding the scope of Critical Care Rapid Response Teams: a feasible approach to identify preventable adverse events that cause harm. European Society of Intensive Care Medicine 2014. Barcelona, Spain. Presenter: Amaral A.

2014 Mar 18 **Presenter.** Post Arrest Consult Team: a knowledge translation strategy for post-cardiac arrest care. 34th International Symposium on Intensive Care and Emergency Medicine 2014. Brussels, Belgium. Presenter: Brooks S.

**Provincial**

2014 Sept 21 **Presenter.** Nurse Perceptions Of Care Provided In A Virtual Neurocritical Care Unit. Dynamics of Critical Care 2014, Canadian Association Critical Care Nurses. Quebec City, Quebec, Canada.

**Local**

2014 June 19 **Invited Speaker.** Preserving the Mind after Cardiac Arrest - It's More than Adding Ice Update on therapeutic hypothermia for post-cardiac arrest care. Schulich Heart Centre Update 2014 for Nurses and Technologists. Toronto, Ontario, Canada.

**Dr. Brian Cuthbertson (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

McCredie VA, Alali AS, Xiong W, Rubenfeld GD, **Cuthbertson BH**, Scales DC, Nathens AB. Timing of Withdrawal of Life-Sustaining Therapies in Severe Traumatic Brain Injury: Impact on Overall Mortality. *J Trauma Acute Care Surg*. 2015 Nov 21. [Epub ahead of print]. **Coauthor or Collaborator**.

Conn LG, Haas B, **Cuthbertson BH**, Amaral AC, Coburn N, Nathens AB. Communication and Culture in the Surgical Intensive Care Unit: Boundary Production and the Improvement of Patient Care. *Qual Health Res*. 2015 Oct 18. [Epub ahead of print]. **Coauthor or Collaborator**.

Lall R, Hamilton P, Young D, Hulme C, Hall P, Shah S, MacKenzie I, Tunnicliffe W, Rowan K, **Cuthbertson Bh**, McCabe C, Lamb S, OSCAR collaborators. A randomised controlled trial and cost-effectiveness analysis of high-frequency oscillatory ventilation against conventional artificial ventilation for adults with acute respiratory distress syndrome. The OSCAR (OSCillation in ARDS) study. *Health Technol Assess*. 2015 Mar;19(23):1-177, vii. **Coauthor or Collaborator**.

Gustot T, Felleiter P, Pickkers P, Sakr Y, Rello J, Velissaris D, Pierrakos C, Taccone FS, Sevcik P, Moreno C, Vincent JL; EPIC II Group of Investigators. Impact of infection on the prognosis of critically ill cirrhotic patients: results from a large worldwide study. *Liver Int*. 2014 Nov. 34(10):1496-503. **Coauthor or Collaborator**.

Sutherland AG, **Cuthbertson BH**, Campbell M. Sham surgery studies. *Arthroscopy*. 2014 Nov. 30(11):1389. **Coauthor or Collaborator**.

Douglas K, Hillis GS, Croal BL, Gibson P, **Cuthbertson BH**. B-type natriuretic peptide and echocardiographic indices of left ventricular filling in critically ill patients with severe sepsis: a cohort study. *Br J Anaesth*. 2014 Nov. 113(5):884-5. **Senior Responsible Author**.

Canter RR, Harvey SE, Harrison DA, Campbell MK, Rowan KM, **Cuthbertson BH**. Selective Decontamination of the Digestive tract in critically ill patients treated in Intensive Care Unit (SuDDICU) Investigators. Observational study of current use of selective decontamination of the digestive tract in UK critical care units. *Br J Anaesth*. 2014 Oct. 113(4):610-7. **Senior Responsible Author**.

Liu J, **Cuthbertson BH**, Zou G, Wu Y, Huang M. The experience and thought in Department of Critical Care Medicine, Sunnybrook Health Sciences Centre, University of Toronto. *Zhonghua Wei Zhong Bing Ji Jiu Yi Xue*. 2014 Oct. 26(10): 761-4. **Coauthor or Collaborator**.

ARISE Investigators; ANZICS Clinical Trials Group, Peake SL, Delaney A, Bailey M, Bellomo R, Cameron PA, Cooper DJ, Higgins AM, Holdgate A, Howe BD, Webb SA, Williams P. Goal-directed resuscitation for patients with early septic shock. *Engl J Med*. 2014 Oct. 371(16): 1496-506. **Coauthor or Collaborator**.



Duncan EM, **Cuthbertson BH**, Prior ME, Marshall AP, Wells EC, Todd LE, Bolsover D, Newlands RS, Webster F, Rose L, Campbell MK, Bellingan G, Seppelt IM, Francis JJ, SuDDICU International Study Group. The views of health care professionals about selective decontamination of the digestive tract: An international, theoretically informed interview study. *J Crit Care*. 2014 Aug. 29(4):634-10. **Coauthor or Collaborator**.

De Waele J, Lipman J, Sakr Y, Marshall JC, Vanhems P, Barrera Groba C, Leone M, Vincent JL; EPIC II Investigators. Abdominal infections in the intensive care unit: characteristics, treatment and determinants of outcome. *BMC Infect Dis*. 2014 Jul. 14:420. **Coauthor or Collaborator**.

Francis JJ, Duncan EM, Prior ME, Maclennan G, Marshall AP, Wells EC, Todd L, Rose L, Campbell MK, Webster F, Eccles MP, Bellingan G, Seppelt IM, Grimshaw JM, **Cuthbertson BH**, SuDDICU study groups. Comparison of four methods for assessing the importance of attitudinal beliefs: An international Delphi study in intensive care settings. *Br J Health Psychol*. 2014 May. 19(2):274-91. **Coauthor or Collaborator**.

Francis JJ, Duncan EM, Prior ME, Maclennan GS, Dombrowski S, Bellingan GU, Campbell MK, Eccles MP, Rose L, Rowan KM, Shulman R, Peter R Wilson A, **Cuthbertson BH**. Selective decontamination of the digestive tract in critically ill patients treated in intensive care units: a mixed-methods feasibility study (the SuDDICU study). *Health Technol Assess*. 2014 Apr. 18(25):1-170. **Senior Responsible Author**.

Hernandez RA, Jenkinson D, Vale L, **Cuthbertson BH**. Economic evaluation of nurse-led intensive care follow-up programmes compared with standard care: the PRaCTICaL Trial. *Eur J Health Econ*. 2014 Apr. 15(3):243-52. **Senior Responsible Author**.

**Cuthbertson BH**, Francis J. Selective decontamination: no oracle needed. Authors' response. *Crit Care*. 2014 Mar. 18(2):417. **Principal Author**.

Scales DC, **Cuthbertson BH**. Percutaneous dilatational tracheostomy: mostly safe, but do benefits outweigh risks? *Crit Care*. 2014 Mar. 18(2):117. **Senior Responsible Author**.

Frampton GK, Harris P, Cooper K, Cooper T, Cleland J, Jones J, Shepherd J, Clegg A, Graves N, Welch K, **Cuthbertson BH**. Educational interventions for preventing vascular catheter bloodstream infections in critical care: evidence map, systematic review and economic evaluation. *Health Technol Assess*. 2014 Feb. 18(5): 1-365. **Senior Responsible Author**.

Marshall AP, Weisbrodt L, Rose L, Duncan E, Prior M, Todd L, Wells E, Seppelt I, **Cuthbertson BH**, Francis J. Implementing selective digestive tract decontamination in the intensive care unit: A qualitative analysis of nurse-identified considerations. *Heart Lung*. 2014 Jan. 43(1):13-8. **Coauthor or Collaborator**.

Cooper K, Frampton G, Harris P, Jones J, Cooper T, Graves N, Cleland J, Shepherd J, Clegg A, **Cuthbertson BH**. Are educational interventions to prevent catheter-related bloodstream infections in intensive care unit cost-effective? *J Hosp Infect*. 2014 Jan. 86(1):47-52. **Senior Responsible Author**.

## Peer-Reviewed Fundings

- 2015 Jul - 2020 Jun **Co-Investigator.** The NEUROlogically-impaired extubation Timing Trial (NEURO-ETT). Canadian Institutes of Health Research. Operating Grant. PI: Scales, Damon C; Ferguson, Niall D. Collaborator(s): Adhikari, Neill K; Alali, Aziz S; Baker, Andrew J; Bosma, Karen J; Brochard, Laurent J; Chapman, Martin G; Charbonney, Emmanuel; Cuthbertson, Brian H; Fowler, Robert A; Griesdale, Donald; Mainprize, Todd G; McCredie, Victoria A; Meade, Maureen O; Nathens, Avery B; Rubenfeld, Gordon; Seely, Andrew J; Singh, Jeffrey M; Turgeon, Alexis F; Wilcox, Mary E; Zygun, David A. \$880,404.00 CAD. [Grants]
- 2015 Jan - 2019 Jan **Chief International Investigator.** SuDDICU study. Health Research Council of New Zealand. PI: Young, Paul. Collaborator(s): MacArthur, C; Seaton, H; Seppelt, I. \$1,200,000.00 NZD. [Grants]
- 2014 Apr – 2017 Mar **Co-Investigator.** Using the Six-Minute Walk Test to Predict Quality of Recovery and Disability-Free Survival Following Major Noncardiac Surgery. Australian and New Zealand College of Anaesthetists. PI: Myles P. Collaborator(s): Pearse R, Shulman M, Wallace S, Wijeyesundera, D. \$130,420.00 AUD. [Grants]
- 2013 Oct – 2015 Mar **Principal Investigator.** Intensive Care Rehabilitation Study (ICARuS): Barriers to Early Physical Rehabilitation in the ICU - A Delphi Study. Canadian Institutes of Health Research (CIHR). \$84,627.00 CAD. [Grants]
- 2013 July – 2016 Jun **Principal Investigator.** The METS ( Measurement of Exercise Tolerance before Surgery) Study: An International Multicentre Prospective Cohort Study of Cardiopulmonary Exercise Testing For Improving Preoperative Risk Stratification for Major Non-Cardiac Surgery. Heart and Stroke Foundation of Ontario (The) (HSFO). \$144,000.00 CAD. [Grants]
- 2012 Apr – 2016 Mar **Principal Investigator.** The METS (Measurement of Exercise Tolerance before Surgery) Study: An International Multicentre Prospective Cohort Study of Cardiopulmonary Exercise Testing For Improving Preoperative Risk Stratification for Major Non-Cardiac Surgery. Canadian Institutes of Health Research. PI: Wijeyesundera Duminda N. Collaborator(s): Beattie W, Chan V, Croal B, Bernard L, Granton J, et al. \$987,066.00 CAD. [Grants]

## Invited Lectures and Presentation

### International

- 2015 Jun 19 **Facilitator.** Collaborative Clinical Trials in Intensive Care Medicine Conference. Prato, Italy.
- 2015 Jun 17 **Invited Speaker.** MET Study Update. Collaborative Clinical Trials in Anaesthesia Conference, Monash University Centre in Prato. Prato, Italy.
- 2015 May 19 **Presenter.** The RECOVER Program: One-Year Disability in Critically Ill Patients Mechanically Ventilated (MV) for 7 Days, [A5123]. American Thoracic Society 2015 International Conference. Denver, Colorado, United States.
- 2014 Dec 3 **Invited Speaker.** The SuDDICU trial: SDD, patient outcomes and bacterial resistance. 2014 ISF Stephen F. Lowry Colloquium. Paris, France.
- 2014 June 13-14 **Invited Speaker.** SuDDICU – balancing individual and population risk?; Tolerable risk. Why are countries so different and what does this mean for clinical studies?; How to do a ICU year in my country (CANADA); The risks of doing the right thing when a family don't agree. Annual Scientific Meeting of the College of Intensive Care Medicine of Australia and New Zealand. Brisbane, Australia.
- 2014 May 19-21 **Invited Speaker.** So You Survived the ICU, Now What?; Critical Care Outside The ICU: Breaking Down The Walls. ATS 2014 International Conference. San Diego, California, United States.
- 2014 May 19 **Presenter.** Long-Term Patient Outcomes After Prolonged Mechanical Ventilation: The Towards RECOVER Study, [A3879]. American Thoracic Society 2014 International Conference. San Diego, California, United States.
- 2014 May 18 **Presenter.** Caregiver Well-Being Is Dependent On Caregiver Mastery, Social Support And Participation In Valued Activities: Towards RECOVER Study, [A1144]. American Thoracic Society 2014 International Conference. San Diego, California, United States.

### Provincial

- 2014 Jan 28 **Invited Speaker.** SuDDICU. Canadian Critical Care Trials Group Winter Meeting. Alberta, Canada.

### National

- 2014 Oct 30 **Moderator.** Plenary RCT Session. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 30 – Nov 1 **Invited Speaker.** You Survived ICU – What Now?; Tracheostomy: When – In Whom? Critical Care Canada Forum. Toronto, Ontario, Canada.

## Local

- 2015 Dec 1 **Invited Speaker.** Sunnybrook Research Rounds. Division of Cardiology, Schulich Heart Centre, Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.
- 2015 Mar 10 **Invited Speaker.** Expanding Support for Hospitals: The Hospital Donation Physician Role. The “Partnering to Save Lives” Conference, Trillium Gift of Life Network. Toronto, Ontario, Canada.
- 2014 June 18 **Invited Speaker.** Reflections on the Rasouli Case. City Wide Medical Grand Rounds (CWMGR) at the University of Toronto Department of Medicine. Toronto, Ontario, Canada.

**Dr. Shelly Dev (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Multimedia**

Ailon J, Mourad O, Chien V, Saun T, **Dev SP**. Videos in Clinical Medicine: Ultrasound-guided insertion of a radial artery catheter. *New England Journal of Medicine*. 2014 Oct. **Senior Responsible Author**.

**Dev SP**, Stefan RA, Saun T, Lee S. Videos in Clinical Medicine: Insertion of an intraosseous needle in adults. *New England Journal of Medicine*. 2014 Jun. **Principal Author**.

**Peer-Reviewed Fundings**

- 2014 Mar – present      **Co-Investigator**. Therapeutic Alliance in the ICU: Enhanced Information to Facilitate Decision-Making. AFP Sunnybrook Health Sciences Centre. PI: Amaral A. \$99,000.00 CAD. [Grants]
- 2011 Mar – present      **Principal Investigator**. Is a Multimedia-Based Teaching Tool as Effective As Bedside Teaching? Proposal for a Validation Study. Education Development Fund, University of Toronto. Collaborator(s): Chow CM, Bandiera G. \$4,993.00 CAD. [Grants]
- 2010 Nov – present      **Principal Investigator**. Multimedia Teaching Tools: A Video Series on Splinting Techniques. Sunnybrook Health Sciences Centre. Collaborator(s): Stefan A. \$10,000.00 CAD. [Grants]
- 2008 Mar – present      **Consultant/Producer**. Lung Injury Knowledge Network, Educational Website Development National Heart, Lung, and Blood Institute (NHLBI) (USA). Collaborator(s): Rubinfeld G. \$1,500,000.00 USD. [Grants]

**Invited Lectures and Presentation**

**Local**

- 2014 Dec      **Invited Speaker**. Postgraduate Training Program Academic Half Day, Department of Cardiovascular Surgery, Faculty of Medicine, University of Toronto. The OR is Not Ready Yet: Managing Your Critically Ill Patient on the Ward. Toronto, Ontario, Canada.
- 2014 Oct      **Invited Speaker**. Canada Critical Care Forum. Little Brother is Watching: ICU Culture, Role Models and the Hidden Curriculum. Toronto, Ontario, Canada.

- 2014 Oct **Invited Speaker.** Toronto East General Hospital, Department of Continuing Medical Education. It's All in the Lighting: Setting the Educational Climate. Toronto, Ontario, Canada.
- 2014 Sept 1 **Invited Speaker.** Toronto East General Hospital, Department of Continuing Medical Education. In the Eye of the Beholder: Giving Feedback. Toronto, Ontario, Canada.
- 2014 Sept **Invited Speaker.** Department of Respiratory Therapy, Sunnybrook Health Sciences Centre. Little Brother is Watching: Role Models, Interprofessionalism and the Hidden Curriculum. Toronto, Ontario, Canada.
- 2014 Apr 1 **Invited Speaker.** Toronto East General Hospital, Department of Continuing Medical Education. Great Expectations: Setting Objectives and Identifying Learner Needs. Toronto, Ontario, Canada.
- 2014 Apr **Invited Speaker.** Postgraduate Year 3 Academic Half Day, Department of Medicine, Faculty of Medicine, University of Toronto. Little Brother is Watching: Role Models, Professionalism and The Hidden Curriculum. Toronto, Ontario, Canada.

**Dr. Robert Fowler (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journals**

Burry L, Cook D, Herridge M, Devlin JW, Fergusson D, Meade M, Steinberg M, Skrobik Y, Olafson K, Burns K, Dodek P, Granton J, Ferguson N, Jacka M, Tanios M, **Fowler R**, Reynolds S, Keenan S, Mallick R, Mehta S, SLEAP Investigators and the Canadian Critical Care Trials Group. Recall of ICU Stay in Patients Managed With a Sedation Protocol or a Sedation Protocol With Daily Interruption. *Crit Care Med*. 2015 Oct 1;43(10):2180-90. **Coauthor or Collaborator**.

Riviello ED, Kiviri W, Twagirumugabe T, Mueller A, Banner-Goodspeed VM, Officer L, Novack V, Mutumwinka M, Talmor DS, **Fowler R**. Hospital Incidence and Outcomes of ARDS Using the Kigali Modification of the Berlin Definition. *Am J Respir Crit Care Med*. 2015 Sep 9. [Epub ahead of print]. **Senior Responsible Author**.

Buchner DL, Bagshaw SM, Dodek P, Forster AJ, **Fowler R**, Lamontagne F, Turgeon AF, Potestio M, Stelfox HT. Prospective cohort study protocol to describe the transfer of patients from intensive care units to hospital wards. *BMJ Open*. 2015 Jul 8;5(7):e007913. **Coauthor or Collaborator**.

Heyland D, Cook D, Bagshaw SM, Garland A, Stelfox HT, Mehta S, Dodek P, Kutsogiannis J, Burns K, Muscedere J, Turgeon AF, **Fowler R**, Jiang X, Day AG, Canadian Critical Care Trials Group, Canadian Researchers at the End of Life Network. The Very Elderly Admitted to ICU: A Quality Finish? *Crit Care Med*. 2015 Jul 1;43(7):1352-60. **Coauthor or Collaborator**.

Alali AS, Burton K, **Fowler R**, Naimark DM, Scales DC, Mainprize TG, Nathens AB. Economic Evaluations in the Diagnosis and Management of Traumatic Brain Injury: A Systematic Review and Analysis of Quality. *Value Health*. 2015 Jul;18(5):721-34. **Coauthor or Collaborator**.

Amaral AC, McDonald A, Coburn NG, Xiong W, Shojania KG, **Fowler R**, Chapman M, Adhikari NK. Expanding the scope of Critical Care Rapid Response Teams: a feasible approach to identify adverse events. A prospective observational cohort. *BMJ Qual Saf*. 2015 Jun 8. [Epub ahead of print]. **Coauthor or Collaborator**.

NICE-SUGAR Study Investigators for the Australian and New Zealand Intensive Care Society Clinical Trials Group and the Canadian Critical Care Trials Group, Finfer S, Chittock D, Li Y, Foster D, Dhingra V, Bellomo R, Cook D, Dodek P, Hebert P, Henderson W, Heyland D, Higgins A, McArthur C, Mitchell I, Myburgh J, Robinson B, Ronco J. Intensive versus conventional glucose control in critically ill patients with traumatic brain injury: long-term follow-up of a subgroup of patients from the NICE-SUGAR study. *Intensive Care Med*. 2015 Jun 1;41(6):1037-47. (<5% contribution; pubmed "collaborator"). **Coauthor or Collaborator**.

Beckett A, Adhikari NK, Hawryluck L, Razek T, **Fowler R**, Tien H. Medical mentorship in Afghanistan: how are military mentors perceived by Afghan health-care providers? *Canadian Journal of Surgery*. 2015 Jun;58(3-Suppl 3):S98-S103. **Coauthor or Collaborator**.

Daneman N, Rishu AH, Xiong W, Bagshaw SM, Cook DJ, Dodek P, Hall R, Kumar A, Lamontagne F, Lauzier F, Marshall JC, Martin CM, McIntyre L, Muscedere J, Reynolds S, Stelfox HT, **Fowler R**, Canadian Critical Care Trials Group. Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE): study protocol for a pilot randomized controlled trial. *Trials*. 2015 Apr 18;16(1):173. **Senior Responsible Author**.

Lacroix J, Hébert PC, Fergusson DA, Timmouth A, Cook DJ, Marshall JC, Clayton L, McIntyre L, Callum J, Turgeon AF, Blajchman MA, Walsh TS, Stanworth SJ, Campbell H, Capellier G, Tiberghien P, Bardiaux L, van de Watering L, van der Meer NJ, Sabri E, Vo D, ABLE Investigators, Canadian Critical Care Trials Group. Age of transfused blood in critically ill adults. *N Engl J Med*. 2015 Apr 9;372(15):1410-8. (<5% contribution; pubmed "collaborator"). Coauthor or Collaborator. Fowler RA, Abdelmalik P, Wood G, Foster D, Gibney N, Bandrauk N, Turgeon AF, Lamontagne F, Kumar A, Zarychanski R, Green R, Bagshaw SM, Stelfox HT, Foster R, Dodek P, Shaw S, Granton J, Lawless B, Hill A, Rose L, Adhikari NK, Scales DC, Cook DJ, Marshall JC, Martin C, Jovet P, Canadian Critical Care Trials Group and The Canadian ICU Capacity Group. Critical Care capacity in Canada: results of a national cross-sectional study. *Crit Care*. 2015 Apr 1;19(1):133. **Principal Author**.

Heyland DK, Dodek P, Mehta S, Cook D, Garland A, Stelfox HT, Bagshaw SM, Kutsogiannis DJ, Burns K, Muscedere J, Turgeon AF, **Fowler R**, Jiang X, Day AG, Canadian Critical Care Trials Group and Canadian Researchers at End of Life Network (CARENET). Admission of the very elderly to the intensive care unit: family members' perspectives on clinical decision-making from a multicenter cohort study. *Palliat Med*. 2015 Apr 1;29(4):324-35. **Coauthor or Collaborator**.

You JJ, Downar J, **Fowler R**, Lamontagne F, Ma IW, Jayaraman D, Kryworuchko J, Strachan PH, Ilan R, Nijjar AP, Neary J, Shik J, Brazil K, Patel A, Wiebe K, Albert M, Palepu A, Nouvet E, des Ordon AR, Sharma N, Abdul-Razzak A, Jiang X, Day A, Heyland DK, Canadian Researchers at the End of Life Network. Barriers to goals of care discussions with seriously ill hospitalized patients and their families: a multicenter survey of clinicians. *JAMA Intern Med*. 2015 Apr 1;175(4):549-56. doi: 10.1001/jamainternmed.2014.7732. [Epub ahead of print]. **Coauthor or Collaborator**.

Carson SS, **Fowler R**, Cobb JP, Arabi YM, Ingbar DH, ATS Taskforce on Emerging Pathogens. Global participation in core data sets for emerging pathogens. *Am J Respir Crit Care Med*. 2015 Apr;191(7):728-30. **Coauthor or Collaborator**.

Ayas NT, Dodek PM, Wang H, **Fowler R**, Wong H, Norena M. Attributable length of stay and mortality of major bleeding as a complication of therapeutic anticoagulation in the intensive care unit. *J Patient Saf*. 2015 Mar 1;11(1):23-7. **Coauthor or Collaborator**.

Mehta S, Cook D, Devlin JW, Skrobik Y, Meade M, Fergusson D, Herridge M, Steinberg M, Granton J, Ferguson N, Tanios M, Dodek P, **Fowler R**, Burns K, Jacka M, Olafson K, Mallick R, Reynolds S, Keenan S, Burry L, SLEAP Investigators and the Canadian Critical Care Trials Group. Prevalence, risk factors, and outcomes of delirium in mechanically ventilated adults\*. *Crit Care Med*. 2015 Mar 1;43(3):557-66. **Coauthor or Collaborator**.

Lim W, Meade M, Lauzier F, Zarychanski R, Mehta S, Lamontagne F, Dodek P, McIntyre L, Hall R, Heels-Ansdell D, **Fowler R**, Pai M, Guyatt G, Crowther MA, Warkentin TE, Devereaux PJ, Walter SD, Muscedere J, Herridge M, Turgeon AF, Geerts W, Finfer S, Jacka M, Berwanger O, Ostermann M, Qushmaq I, Friedrich JO, Cook DJ, PROphylaxis for ThromboEmbolism in Critical



Care Trial Investigators. Failure of anticoagulant thromboprophylaxis: risk factors in medical-surgical critically ill patients\*. Crit Care Med. 2015 Feb 1;43(2):401-10. **Coauthor or Collaborator.** Downar J, You JJ, Bagshaw SM, Golan E, Lamontagne F, Burns K, Sridhar SK, Seely A, Meade MO, Fox-Robichaud A, Cook D, Turgeon AF, Dodek P, Xiong W, **Fowler R**, Canadian Critical Care Trials Group. Nonbeneficial treatment Canada: definitions, causes, and potential solutions from the perspective of healthcare practitioners\*. Crit Care Med. 2015 Feb 1;43(2):270-81. **Senior Responsible Author.**

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Brett-Major DM, Jacob ST, Jacquerioz FA, Risi GF, Fischer WA 2nd, Kato Y, Houlihan CF, Crozier I, Bosa HK, Lawler JV, Adachi T, Hurley SK, Berry LE, Carlson JC, Button TC, McLellan SL, Shea BJ, Kuniyoshi GG, Ferri M, Murthy SG, Petrosillo N, Lamontagne F, Porembka DT, Schieffelin JS, Rubinson L, O'Dempsey T, Donovan SM, Bausch DG, **Fowler R**, Fletcher TE. Being ready to treat ebola virus disease patients. Am J Trop Med Hyg. 2015 Feb 1;92(2):233-7. **Coauthor or Collaborator.**

Tanuseputro P, Wodchis WP, Fowler R, Walker P, Bai YQ, Bronskill SE, Manuel D. The health care cost of dying: a population-based retrospective cohort study of the last year of life in Ontario, Canada. PLoS One. 2015 Jan 1;10(3):e0121759. **Coauthor or Collaborator.**

Bah EI, Lamah MC, Fletcher T, Jacob ST, Brett-Major DM, Sall AA, Shindo N, Fischer WA 2nd, Lamontagne F, Saliou SM, Bausch DG, Moumié B, Jagatic T, Sprecher A, Lawler JV, Mayet T, Jacquerioz FA, Méndez Baggi MF, Vallenás C, Clement C, Mardel S, Faye O, Faye O, Soropogui B, Magassouba N, Koivogui L, Pinto R, **Fowler R**. Clinical presentation of patients with Ebola virus disease in Conakry, Guinea. N Engl J Med. 2015 Jan 1;372(1):40-7. **Senior Responsible Author.**

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Recovery After Critical Illness in Patients Aged 80 Years or Older: A Multi-Centre Prospective Observational Cohort Study. Heyland DK, Garland A, Bagshaw SM, Cook DJ, Rockwood K, Stelfox HT, Dodek P, **Fowler R**, Turgeon AF, Burns K, Muscedere J, Kutsogiannis J, Albert M, Mehta S, Jiang X, Day AG on behalf of the Canadian Critical Care Trials Group and the Canadian Researchers at the End of Life Network (CARENET). Intensive Care Medicine. 2015. In Press. **Coauthor or Collaborator.**

WHO Ebola Clinical Response Team (Bausch D, Ferri M, Fletcher T, **Fowler R**, Lamontagne F, McLellan S, Murthy S, Porembka D, Risi G). Ebola, CPR, DNR, and the Management of Risk. Lancet. 2015. In Press. **Coauthor or Collaborator.**

**Fowler R**, Mittmann N, Geerts WH, Heels-Ansdell D, Gould MK, Guyatt G, Krahn M, Finfer S, Pinto R, Chan B, Ormanidhi O, Arabi Y, Qushmaq I, Rocha MG, Dodek P, McIntyre L, Hall R, Ferguson ND, Mehta S, Marshall JC, Doig CJ, Muscedere J, Jacka MJ, Klinger JR, Vlahakis N, Orford N, Seppelt I, Skrobik YK, Sud S, Cade JF, Cooper J, Cook D. Economic evaluation of the prophylaxis for thromboembolism in critical care trial (E-PROTECT): study protocol for a randomized controlled trial. Trials. 2014 Dec 20;15(1):502. **Principal Author.**

Schieffelin JS, Shaffer JG, Goba A, Gbokie M, Gire SK, Colubri A, Sealfon RS, Kanneh L, Moigboi A, Momoh M, Fullah M, Moses LM, Brown BL, Andersen KG, Winnicki S, Schaffner SF, Park DJ, Yozwiak NL, Jiang PP, Kargbo D, Jalloh S, Fonnies M, Sinnah V, French I, Kovoma A, Kamara FK, Tucker V, Konuwa E, Sellu J, Mustapha I, Foday M, Yillah M, Kanneh F, Saffa S, Massally JL, Boisen ML, Branco LM, Vandi MA, Grant DS, Happi C, Gevao SM, Fletcher TE, **Fowler R**, Bausch DG, Sabeti PC, Khan SH, Garry RF, KGH Lassa Fever Program, Viral Hemorrhagic Fever Consortium, WHO Clinical Response Team. Clinical illness and outcomes in patients with Ebola in Sierra Leone. *N Engl J Med*. 2014 Nov 27;371(22):2092-100. **Coauthor or Collaborator**.

**Fowler R**, Mittmann N, Geerts W, Heels-Ansdell D, Gould MK, Guyatt G, Krahn M, Finfer S, Pinto R, Chan B, Ormanidhi O, Arabi Y, Qushmaq I, Rocha MG, Dodek P, McIntyre L, Hall R, Ferguson ND, Mehta S, Marshall JC, Doig CJ, Muscedere J, Jacka MJ, Klinger JR, Vlahakis N, Orford N, Seppelt I, Skrobik YK, Sud S, Cade JF, Cooper J, Cook D, Canadian Critical Care Trials Group, Australia and New Zealand Intensive Care Society Clinical Trials Group. Cost-effectiveness of dalteparin vs unfractionated heparin for the prevention of venous thromboembolism in critically ill patients. *JAMA*. 2014 Nov 26;312(20):2135-45. **Principal Author**.

Lamontagne F, Clément C, Fletcher T, Jacob ST, Fischer WA 2nd, **Fowler R**. Doing today's work superbly well--treating Ebola with current tools. *N Engl J Med*. 2014 Oct 23;371(17):1565-6. **Senior Responsible Author**.

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Halpern SD, Becker D, Curtis JR, **Fowler R**, Hyzy R, Kaplan LJ, Rawat N, Sessler CN, Wunsch H, Kahn JM, Choosing Wisely Taskforce, American Thoracic Society, American Association of Critical-Care Nurses, Society of Critical Care Medicine. An official American Thoracic Society/American Association of Critical-Care Nurses/American College of Chest Physicians/Society of Critical Care Medicine policy statement: the Choosing Wisely® Top 5 list in Critical Care Medicine. *Am J Respir Crit Care Med*. 2014 Oct 1;190(7):818-26. **Coauthor or Collaborator**.

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Crowther M, Cook D, Guyatt G, Zytaruk N, McDonald E, Williamson D, Albert M, Dodek P, Finfer S, Vallance S, Heels-Ansdell D, McIntyre L, Mehta S, Lamontagne F, Muscedere J, Jacka M, Lesur O, Kutsiogiannis J, Friedrich J, Klinger JR, Qushmaq I, Burry L, Khwaja K, Sheppard JA, Warkentin TE, PROTECT collaborators, Canadian Critical Care Trials Group, Australian and New Zealand Intensive Care Society Clinical Trials Group. Heparin-induced thrombocytopenia in the critically ill: interpreting the 4Ts test in a randomized trial. *J Crit Care*. 2014 Jun 1:29(3); 470.e7-15. **Coauthor or Collaborator.**

You JJ, **Fowler R**, Heyland DK, Canadian Researchers at the End of Life Network (CARENET). Just ask: discussing goals of care with patients in hospital with serious illness. *CMAJ*. 2014 Apr 1:186(6);425-32. **Coauthor or Collaborator.**

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Cook D, Duffett M, Lauzier F, Ye C, Dodek P, Paunovic B, **Fowler R**, Kho ME, Foster D, Stelfox T, Sinuff T, Zytaruk N, Clarke F, Wood G, Cox M, Kutsiogiannis J, Jacka M, Roussos M, Kumar H, Guyatt G, CONECKT-T (Co-operative Network of Critical Care Knowledge Translation for Thromboprophylaxis) Investigators, Canadian Critical Care Trials Group. Barriers and facilitators of thromboprophylaxis for medical-surgical intensive care unit patients: a multicenter survey. *J Crit Care*. 2014 Jan 1:29(3);471.e1-9. **Coauthor or Collaborator.**

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## Letters to Editor

Murthy S, Ebola Clinical Care authors group. Ebola and provision of critical care. Lancet. 2015 Apr 11;385(9976):1392-3. **Coauthor or Collaborator.**

WHO Ebola Response Team, Agua-Agum J, Ariyaratnam A, Blake IM, Cori A, Donnelly CA, Dorigatti I, Dye C, Eckmanns T, Ferguson NM, **Fowler R**, Fraser C, Garske T, Hinsley W, Jombart T, Mills HL, Murthy S, Nedjati Gilani G, Nouvellet P, Pelletier L, Riley S, Schumacher D, Shah A, Van Kerkhove MD. Ebola virus disease among children in West Africa. N Engl J Med. 2015 Mar 26;372(13):1274-7. **Coauthor or Collaborator.**

## Review

Fletcher TE, **Fowler R**, Beeching NJ. Understanding organ dysfunction in Ebola virus disease. Intensive Care Med. 2014 Dec 1;40(12):1936-9. **Coauthor or Collaborator.**

**Fowler R.** CPR & Beyond. How will IPR therapy impact the way we treat patients in the future? JEMS. 2014 Dec 1;Suppl:14-9. **Principal Author.**

Buregeya E, **Fowler R**, Talmor DS, Twagirumugabe T, Kiviri W, Riviello ED. Acute Respiratory Distress Syndrome in the Global Context. Glob Heart. 2014 Sep 1;9(3):289-295. **Coauthor or Collaborator.**

## Peer-Reviewed Fundings

- |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 Jul - 2020 Jun | <b>Co-Investigator.</b> The NEUROlogically-impaired extubation Timing Trial (NEURO-ETT). Canadian Institutes of Health Research (CIHR). Operating Grant. PI: Scales, Damon C & Ferguson, Niall D. Collaborator(s): Adhikar N, Alali A, Baker A, Bosma K, Brochard L, Chapman M, Charbonney E, Cuthbertson B, Griesdale D, Mainprize T, McCredie V, Meade M, Nathens A, Rubinfeld G, Seely A, Singh J, Turgeon A, Wilcox ME, Zygum, D. \$880,404.00 CAD. [Grants]           |
| 2015 Jul - 2017 Jun | <b>Principal Investigator.</b> Regional and temporal variations in incidence, prevalence and outcomes of critical illness among pregnant and post-partum women and newborns in Canada. Canadian Institutes of Health Research (CIHR). Operating Grant. Collaborator(s): Aoyama K, Hladunewich M, Lapinsky S, Ray J, Scales D, Seaward P, Percival G, Shah P. \$46,415.00 CAD. [Grants]                                                                                     |
| 2015 Jul - 2016 Jun | <b>Co-Principal Investigator.</b> Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE): A Randomized Controlled Clinical Trial. Canadian Institutes of Health Research (CIHR). Operating Grant (Priority Announcement). PI: Daneman, Nick. Collaborator(s): Bagshaw S, Coburn B, Cook D, Dodek P, Hall R, Kumar A, Lamontagne F, Lauzier F, Marshall JC, Martin C, McIntyre L, Muscedere L, Reynolds S, Stelfox H. \$100,000.00 CAD. [Grants] |

- 2015 Jan - 2019 Dec **Principal Investigator.** The Canadian Critical Care Trials Group. Canadian Institutes of Health Research (CIHR). ICRH Community Development Program Grant. Collaborator(s): Burns K, Choong K, Cook D, Gilfoyle E, Lamontagne F, Mardshall JC, McIntyre L, Meade M, Muscedere J, Seely A, Sinuff T, Turgeon A, Martin C, Hall R, Hutchison J. \$1,500,000.00 CAD. [Grants]
- 2015 - 2016 **Co-Principal Investigator.** Gone, but not forgotten: A prospective cohort study to characterize the health effects of post-Ebola syndrome on survivors of Ebola Virus Disease in West Africa. Canadian Institute of Health Research (CIHR). PIs: Chan A, Mishra A, Fowler R. Collaborator(s): Adhikari N, Glynn J, Hajek J, Murthy S, Vanderschuren A. \$250,000.00 CAD. [Grants]
- 2015 - 2016 **Co-Investigator.** Delivery of supportive care during an Ebola outbreak: defining minimal requirements and identifying barriers and facilitators towards creating international guidelines. PI: Lamontagne F. Collaborator(s): Adhikari A, Bah E, Chan A, Clement C, Couturier F, Fowler R, Guyatt G, Hudon C, Lamah M, Mishra S, Murthy S. \$247,570.00 CAD. [Grants]
- 2015 - 2016 **Co-Principal Investigator.** Establishing Feasibility & Safety of Providing Critical Care for Patients with Ebola through design of a simulated Ebola Treatment Centre. CIHR Infection and Immunity; Population and Public Health; Health Services and Policy Research. PI: Fowler R, Adhikari A. Collaborator(s): Bah E, Chan A, Christian M, Hajek J, Hall T, Lamah M, Lamontagne F, Marshall J, Mishra S, Murthy S, Piquette D, Simor A, Vandershuren A. \$249,973.00 CAD. [Grants]
- 2014 – 2018 **Co-Principal Investigator.** Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE): a Pilot Randomized Clinical Trial Ontario Ministry of Health and Long-Term Care. \$81,892.00 CAD. [Grants]
- 2014 Sept – 2015 Sept **Co-Investigator.** Emergency Evaluation of Treatments for Ebola Virus Disease. Wellcome Trust. PI: Horby P. Collaborators: Kieny M, Brooks A, Serafini M, Draguez B, Longuet C, Uyeki T, Endtz H, Baize S, Lang T, Sall A, Olliaro P, Whitehead J, Bausch D. £ 3,214,046.79 GBP. [Grants]
- 2014 Apr – 2016 Mar **Co-Investigator.** SodiUm SeleniTe Administration IN Cardiac Surgery (SUSTAIN CSX®-trial). Canadian Institutes of Health Research (CIHR). PI: Heyland D, McDonald B. Collaborator(s): Day A, Fremes S, Klein R, Lamarche Y, Manzanares W, Ratzlaff R, Stoppe C, Whitlock R. \$232,416.00 CAD [Grants]

- 2014 – 2015 **Co-Investigator.** Evaluation of a novel cardiopulmonary resuscitation (CPR) video decision aid to promote shared decision-making. Heart and Stroke Foundation of Canada (HSFC). PI: Kryworuchko J. \$60,682.00 CAD. [Grants]
- 2014 – 2015 **Principal Investigator.** The Canadian Critical Care Trials Group. Canadian Institutes of Health Research (CIHR). Collaborator(s): Hebert P, Burns K, Choong K, Cook D, Gilfoyle E, Lamontagne F, Marshall, J, McIntyre L, Meade M, Muscedere J, Seely A, Sinuff T, Turgeon A. \$175,000.00 CAD. [Grants]
- 2013 Mar – 2015 Mar **Co-Investigator.** Improving DECision-making about goals of care for hospitalized, elderly patients: a multi-center “incubator unit” study (The iDECIDE Study). Technology Evaluation in the Elderly National Centre of Excellence (NCE). PI: You J, Heyland D. Collaborator(s): Andreychuk S, McLean R, Barwich D, Tayler C, Hoffmann C, Chen C, Simon J, Sargious P, Sudore R, Sinuff T, Strauss S, Myers J, Van Wert R. \$593,746.00 CAD. [Grants]
- 2013 – 2015 **Co-Investigator.** Sex Differences in Admission to Intensive Care Units: The Role of Social Support Factors. Technology Evaluation in the Elderly National Centre of Excellence (NCE). Collaborator(s): Dodek P, Fowler R, Doupe M, Fransoo R, Wong H, Kozak J. \$125,807.00 CAD. [Grants]
- 2013 – 2015 **Primary Investigator.** A National Comparison of Intensity of End-of-Life Care in Canada: Defining Changing Patterns, Risk Factors and Targets for Intervention. Collaborator(s): Kozak J-F, Rockwood K, Andrea Hill, Wunsch H, Skinner J, Rubenfeld G, Scales D, Heyland D, Stukel T. \$196,187.00 CAD. [Grants]
- 2013 – 2015 **Principal Investigator.** Shining a light on End-of-Life Care in Canada: Investigating Barriers, Testing Interventions, and Disseminating Integrated Solutions for Patients, Families and Healthcare Professionals. University of Toronto Integrating Challenge Grant. Collaborator(s): Dev S, Berry S, Downar J, Gandhi S, La Delfa I, Laupacis A, Myers J, Ross H, Rubenfeld G, Scales D, Sinha S, Stukel T, Zimmermann C. Collaborators: Gallagher R, Heyland D, Kryworuchko J, Skinner J, You J, Wunsch H. \$300,000.00 CAD. [Grants]
- 2013 – 2015 **Co-Investigator.** Sodium Selenite Administration in Cardiac Surgery (SUSTAIN CSX®-trial). Lotte & John Hecht Memorial Foundation. PI: Daren H, McDonald B. Collaborator(s): Day A, Fremes S, Klein R, Lamarche Y, Manzanares W, Ratzlaff R, Stoppe C, Whitlock R. \$499,223.00 CAD. [Grants]

- 2013 – 2014 **Co-Investigator.** Improving DECision-making about goals of care for hospitalized, eLderly patiEnts: A multicentre, interventional study. Canadian Institutes of Health Research (CIHR). PI: Heyland D, & You J. Collaborator(s): Barwich d, Day A, Sargious R, Sawatzky R, Simon J, Sinuff T, Stajduhar K. \$24,998.00 CAD. [Grants]
- 2013 – 2014 **Primary Investigator.** A Pilot Study to Ascertain the use of Intensive Care Units (ICU's) as an Option for the Surveillance of Severe Respiratory Illness (SRI) in Canada Public Health Agency of Canada (PHAC). \$197,068.59 CAD. [Grants]
- 2012 – 2017 **Co-Investigator.** Technology evaluation in the elderly network (TECH VALUE NET). Networks of Centres of Excellence (NCE). PI: Heyland DK. Colloborators: 44 Network Investigators across Canada. \$23,888,157.00 CAD. [Grants]
- 2012 – 2014 **Primary Investigator.** Regional and temporal variations in incidence, prevalence and outcomes of critical illness among pregnant and post-partum women and newborns in Canada. Canadian Institutes of Health Research (CIHR). Collaborator(s): Scales D, Lapinsky S, Ray J, Pinto R, Aoyama K. \$41,325.00 CAD. [Grants]
- 2012 – 2014 **Co-Investigator.** Evaluation of a novel cardiopulmonary resuscitation (CPR) video decision aid to promote shared decision-making. Heart and Stroke Foundation of Canada (HSFC). PI: Kryworuchko J. \$65,376.00 CAD. [Grants]
- 2012 – 2014 **Co-Investigator.** TBI-Prognosis QualE-Study. Canadian Institutes of Health Research (CIHR). PI: Turgeon A. \$86,959.36 CAD. [Grants]
- 2012 – 2014 **Co-Investigator.** DECision-making about goals of care for hospitalized meDical PatiEnts: a multicentre, mixed-methods study. The DECIDE Study. Canadian Institutes of Health Research (CIHR). Collaborator(s): Heyland D, You J, Albert M, Brazil K, Day A, Downar J, Ilan R, Jayaraman D, Kryworuchko J, Lamontagne F, Ma I, Palepu A, Shik J, Strachan P. \$157,908.00 CAD. [Grants]
- 2012 – 2014 **Co-Principal Investigator.** Optimizing duration of antibiotic therapy for bloodstream infections. Physicians Services Incorporated Foundation (PSI). PI: Daneman N. \$167,000.00 CAD. [Grants]
- 2012 – 2014 **Co-Investigator.** Pilot KT intervention to address gender differences in access to post arrest care. Canadian Institutes of Health Research (CIHR). PI: Rac V. Collaborator(s): Slutsky A, Abramson B, Dorian P, Bierman A, Parsons J, Scales DC, Gray S, Dainty K, Zwarenstein M, Kiss A. \$218,994.00 CAD. [Grants]

2011 Apr – 2014 Mar **Co-Investigator.** Understanding Long-Term Mechanical Ventilation in Canada: A Programmatic Approach. Canadian Institutes of Health Research (CIHR). Collaborator(s): Amin R, Mawdsley C, Fan E, Fraser I, Goldstein R, Katz S, King J, Leasa D, McKim D, Nonoyama M, Road J, Rubenfeld G. \$349,863.00 CAD. [Grants]

## Invited Lectures and Presentation

### International

- 2015 Sep 23 **Invited Speaker.** Research agenda, standard clinical protocols, data sharing. World Health Organization Department of Pandemic and Epidemic Diseases Epidemic Clinical Management, Team Retreat. Genève (fr), Switzerland.
- 2015 Sep 9 **Invited Speaker.** Consideration for clinical trials during outbreak. MERS-CoV Research Initiative Workshop, King Saud bin Abdulaziz University for Health Sciences and the King Abdullah International Research Center. Ar Riyāḍ, Saudi Arabia.
- 2015 Sep 2 **Invited Speaker.** Clinical care of patients with Ebola Virus Disease. International Meeting on Respiratory Pathogens (IMRP) 2015. Singapore.
- 2015 Aug 5 **Invited Lecturer.** Global Health Risk Framework: A Workshop On Resilient And Sustainable Health Systems To Respond To Global Infectious Disease Outbreaks. Lessons Learned. Greater Accra, Ghana.
- 2015 Jul 1 **Invited Speaker.** The Importance of Measuring Long-term Outcomes: lessons from ARDS and SARS. WHO MERS-CoV Clinical Management. Global teleconference.
- 2015 Jun 15 **Invited Speaker.** WHO Informal Workshop on Post-exposure Prophylaxis for Ebola Virus Disease. National Institutes of Health. Bethesda, Maryland, United States.
- 2015 May 20 **Invited Speaker.** Ebola Virus Disease – Epidemiology and clinical management in resource poor settings. American Thoracic Society Annual Conference. Denver, Colorado, United States.
- 2015 Mar 20 **Invited Speaker.** Multiresistant organisms - Antibiotic therapy. 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 20 **Invited Speaker.** Ebola virus disease: lessons for the intensivist. 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.



- 2015 Mar 20 **Invited Speaker.** Long-term physical outcomes – after the ICU. 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 20 **Invited Speaker.** Can the World Health Organization Help. 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 19 **Invited Speaker.** Thromboembolism prevention in the ICU. 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 5 **Invited Speaker.** Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE): A Randomized control trial. Australia-New Zealand Intensive Care Society Clinical Trials Group. Noosa, Australia. Presenter(s): Fowler RA & Daneman.
- 2014 Dec 10-13 **Invited Speaker.** World Health Organization – International Organization for Migration Training Session Clinical Features of Ebola Virus Disease. Freetown, Sierra Leone, Africa.
- 2014 Nov 13 **Invited Speaker.** World Health Organization. West Africa Ebola Virus Outbreak Clinical Update. Geneva, Switzerland.
- 2014 Nov 5 **Distinguished Speaker.** Stanford University. West Africa Ebola Virus Outbreak: a Conversation with Rob Fowler; West Africa Ebola Epidemic - New Data. Stanford, California, United States.
- 2014 Oct 6 **Expert Panel.** McLean. Ebola Virus Disease Case Management Expert Panel. Virginia, United States.
- 2014 Jul 4 **Invited Speaker.** International Severe Acute and Emerging Respiratory Infection Consortium (ISARIC). Ebola Virus Disease. Annecy, France.
- 2014 Jul 2 **Distinguished Speaker.** Emergency Ministerial Meeting on Ebola Virus Disease in West Africa. Ebola Virus Disease Case Management. Greater Accra, Ghana.
- 2014 Jun 26 **Invited Speaker.** United Kingdom Critical Care Research Forum. MERS-CoV, H7N9 & Ebola 2014 – lessons learnt. Global research collaborations (Severe Respiratory Infections); Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE): A Pilot Randomized control trial. Research Proposals with Harvey S. Cardiff, South Wales, United Kingdom.
- 2014 Jun 3 **Invited Speaker.** UN Medical Services Division. Middle-Eastern Respiratory Syndrome Expert Seminar. Geneva, Switzerland simulcasts by New York to Global Audience, USA. Geneva, Switzerland.

- 2014 May 17 **Invited Speaker.** World Health Organization Pathophysiology of Severe Influenza Infection. WHO Regional Training for the Clinical Management of Avian Influenza H7N9 and other Causes of Sever Acute Respiratory Infections. Nanjing, China.
- 2014 May 6 **Invited Speaker.** World Health Organization. Clinical Aspects of Human Infection with Avian Influenza A(H7N9) Infection. Second WHO Integrated Meeting on development and clinical trials of Influenza vaccines that induce broadly protective and long-lasting immune responses. Geneva, Switzerland.
- 2014 Apr 30 **Invited Speaker.**Royal Infirmary, University of Edinburgh. How do North Americans Die?; Emerging infections, outbreaks and Pandemics – 2014 ;Emerging infections, outbreaks and Pandemics – 2014. Edinburgh, United Kingdom.
- 2014 Feb 6 **Invited Speaker.** World Health Organization. Department of Pandemic and Epidemic Diseases. Challenges in Interpreting Observational Studies of Outbreaks & Pandemics. Geneva, Switzerland.
- 2014 Feb 5 **Invited Speaker.** Réseau European de recherché en Ventilation Artificielle (REVA) Réunion scientifique. Bacteremia Antibiotic Length Actually Needed for Clincial Effectiveness (BALANCE). Lausanne, France.
- 2014 Jan 23 **Invited Speaker.** Réseau European de recherché en Ventilation Artificielle (REVA) Réunion scientifique. Bacteremia Antibiotic Length Actually Needed for Clincial Effectiveness (BALANCE). Paris, France.

## **Provincial**

- 2015 Feb 28 **Invited Speaker.** Caring for Patients with Ebola Disease. Canadian Critical Care Conference. Whistler, British Columbia, Canada.
- 2015 Feb 27 **Invited Speaker.** Canadian Critical Care Capacity. Canadian Critical Care Conference. Whistler, British Columbia, Canada.
- 2015 Jan 30 **Invited Speaker.** Canadian Critical Care Capacity. International Forum of Acute Care Trialists. Lake Louise, Alberta, Canada.
- 2015 Jan 28 **Invited Speaker.** Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE) Trial. Canadian Critical Care Trials Group. Lake Louise, Alberta, Canada. Presenter(s): Daneman N and Fowler R.
- 2014 Nov 26 **Invited Speaker.** Challenges in Treating Ebola Patients. Department of Medicine, Section of Critical Care Medicine, University of Manitoba. Winnipeg, Manitoba, Canada. Presenter(s): Fowler, Robert.

- 2014 Nov 26 **Invited Speaker.** Department of Medicine, Section of Critical Care Medicine. University of Manitoba. Outcomes from Critical Illness; Challenges in Treating Ebola Patients.. Winnipeg, Manitoba, Canada.
- 2014 Oct 1 **Invited Speaker.** GloPID International Meeting. Emerging Infections, Outbreaks & Pandemics: Global Research Collaborations and Lessons Learnt SARS to Ebola: How Infectious Outbreaks Influence Health Research and Public Health Policy. Montreal, Quebec, Canada.
- 2014 Jun 4 **Presenter.** Optimisation De La Durée Du Traitement Antibiotique Chez Les Patients Bactériémiques Aux Soins Intensifs. AMMIQ (Association des médecins microbiologistes infectiologues du Québec). Quebec, Canada.

### **National**

- 2015 Jul 31 **Invited Speaker.** Prepare Canada. Public Health Agency of Canada. Ottawa, Ontario, Canada. Presenter(s): Fowler RA, Christian M.
- 2015 Jun 13 **Invited Lecturer.** Reflections on the Ebola Epidemic: Did we get it right? Medecins sans frontiers Annual General Assembly. Montreal, Ontario, Canada. Presenter(s): Panel discussion moderated by Dr. Heather Culbert, president. With Dr. Robert Fowler, Univ. of Toronto & World Health Organization, Dr. José Antonio Bastos, President MSF-OCBA and Bruno Jochum, Executive Director MSF-OCG and Dr. Tim Jagatic, MSF fieldworker.
- 2015 Jun 12 **Invited Speaker.** Clinical Features of Ebola Virus Disease. Medecins Sans Frontiers Annual General Assembly. Montreal, Ontario, Canada. Presenter(s): Fowler, Robert.

### **Local**

- 2015 Jun 4 **Invited Speaker.** Intensification of care at the end of life. TVN National Forum 2015: moving towards a strategy for the care of Canada's frail elderly. Toronto, Ontario, Canada.
- 2015 May 4 **Invited Lecturer.** Ebola Virus Disease – an International Health Perspective. 2015 Commonwealth Fund Harkness Canadian Health Policy Briefing. Toronto, Ontario, Canada.
- 2015 May 1 **Invited Lecturer.** Ebola Virus Disease. Toronto Academic Health Science Network. Communicators' Education Day. Toronto, Ontario, Canada.
- 2015 Feb 19 **Invited Speaker.** Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE) Trial. Hospital for Sick Children Department of Critical Care Research Rounds. Toronto, Ontario, Canada. Presenter(s): Fowler RA, Daneman N.

- 2015 Feb 11 **Invited Speaker.** Ebola Discussion Panel. Global Heart Series. University of Toronto Medical Students (year 1 & 2). Presenter(s): Fowler RA, Lampard B, Chan A, Upshur R, Fisman D.
- 2014 Dec 12 **Invited Speaker.** Health Quality Ontario. Ebola Virus Disease in West Africa. Toronto, Ontario, Canada.
- 2014 Nov 20 **Invited Speaker.** 11th ICAV International Symposium in Infectious Diseases: Global Public Health. Challenges of the Next Decade. York University. Challenges in Treating Ebola Patients in Guinea. Toronto, Ontario, Canada.
- 2014 Nov 12 **Invited Speaker.** Public Health Agency of Canada Webinar. Emerging Infections – SARI to Ebola. Challenges and opportunities for clinical care and clinical research during ongoing outbreaks and epidemics. Severe Acute Respiratory Infection Pilot Study. Toronto, Ontario, Canada.
- 2014 Nov 1 **Invited Speaker.** Cost effectiveness of dalteparin for medical-surgical deep vein thrombosis prophylaxis. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 31 **Invited Speaker.** West Africa Ebola Epidemic – Clinical Presentation and Outcomes. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 31 **Invited Speaker.** Canadian Critical Care Capacity. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 31 **Invited Speaker.** West Africa Ebola Epidemic - New Data. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 30 **Invited Speaker.** Taking End-of-Life Care Seriously: Comparing Canada and the US. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 29 **Invited Speaker.** Tales of SARS, H1N1, MERS, and EBOLA. Critical Care Canada Forum. Toronto, Ontario, Canada. Presenter(s): Fowler RA.
- 2014 Oct 21 **Invited Speaker.** Institute for Clinical and Evaluative Sciences. University of Toronto. Challenges and opportunities for clinical care and research during ongoing outbreaks and epidemics. Toronto, Ontario, Canada.
- 2014 Oct 20 **Invited Speaker.** University of Toronto Interdepartmental Division of Critical Care Medicine Strategic Planning Day. Ebola Virus Disease. Toronto, Ontario, Canada.

### Honours and Awards

- 2014 Technology Evaluation in the Elderly Network Center of Excellence Abstract Award. University of Toronto.

**Dr. Shannon Goddard (Sunnybrook Hospital)**

**Peer-Reviewed Fundings**

October 2013 – Present      **Co-Principal Investigator** (Mentored by B.H. Cuthbertson).  
Intensive Care Rehabilitation Study (ICARuS): Barriers to Early  
Physical Rehabilitation in the ICU - A Delphi Study. Canadian  
Institutes of Health Research (CIHR). PI: Cuthbertson B, Fan E,  
Francis J, Kho M, Rose L, Rubinfeld G. \$84,627.00 CAD [Grants]

**Invited Lectures and Presentation**

**Provincial**

2015 Feb      **Invited Speaker.** University of Winnipeg Critical Care Grand  
Rounds. Barriers to Early Rehabilitation and Family Engagement in  
Early Rehabilitation. Winnipeg, Manitoba, Canada.

**Local**

2014 Nov      **Invited Speaker.** Canadian Critical Care Forum. Barriers to Early  
Rehabilitation in Mechanically Ventilated Patients. Toronto, Ontario,  
Canada.

**Dr. Victoria McCredie (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journals**

**McCredie VA**, Alali A, Xiong W, Cuthbertson B, Rubenfeld G, Scales DC, Nathens AB. Timing of withdrawal of life support in patients with severe traumatic brain injury does not explain variations in mortality between trauma centres. *J Trauma Acute Care Surg*. 2015 Nov 21. **Principal Author.**

Piva S, **McCredie VA**, Latronico N. (2015). Neuroinflammation in sepsis: sepsis associated delirium. *Cardiovascular & Hematological Disorders Drug Targets*, 15(1), 10–18. Review article. **Coauthor or Collaborator.**

Manoel AL, Turkel-Parrella D, Duggal A, Murphy A, **McCredie VA**, Marotta TR, Management of Aneurysmal Subarachnoid Hemorrhage. *The Cleveland Clinic Journal of Medicine*, Cleveland Clinic Journal of Medicine 2015 Mar;82(3):177-192. Review article. **Coauthor or Collaborator.**

**Abstracts**

**McCredie VA**, Shrestha GS, Acharya S, Bellini A, Marhatta MN, Goffi A. Effectiveness of the Emergency Neurological Life Support Course: Evaluating Knowledge Uptake. *Neurocritical Care*. 2015 Oct;23 Suppl 1:1-289. **Principal Author.**

Goffi, **McCredie VA**, Singh J, Chapman M, Abrahamson S. Development and Initiation of a Neurocritical Care Curriculum for the Critical Care Fellowship Program in Canada. *Neurocritical Care*. 2015 Oct;23 Suppl 1:1-289. **Coauthor or Collaborator.**

**Book Chapters**

The Legacy of Critical Illness. A Textbook of Post-ICU Medicine by Stevens, Hart and Herridge. Chapter IV: Neuromuscular and musculoskeletal disorders: Long-term implications of ICU acquired weakness. Latronico N, Piva S, **McCredie VA**. Oxford University Press; 1st Edition. 2014 Jun 29. **Senior Responsible Author.**

**Editorials**

**McCredie VA**, Adhikari NK. Early tracheostomy in critically ill patients: still too fast. *The Lancet Respiratory Medicine*. 2015 Feb;3(2):95-6. **Principal Author.**

## Peer-Reviewed Fundings

- 2015 – 2020 **Co-Investigator.** Canadian Traumatic Brain Injury Research Consortium (CTRC). Canadian Institutes of Health Research (CIHR). Co-PIs: Hutchison JS, Turgeon AF, Emery CA, Gagnon I, Wellington CL, Riopelle RJ, Archambault P, Baker AJ, Barlow KM, Bayley MT, Beauchamp MH, Chapman MG, Chasse M, Clarke DB, Colantonio A, Cusimano MD, Emeriaud G, English SW, Esser MJ, Fraser DD, Griesdale D, Guerguerian A-M, Lacroix J, Lauzier F, Marshall SC, Mcfadyen BJ, Panenka WJ, Ptitto A, Reed N, Winston BW, Yeates KO, Zarychanski R, Zemek R, Zygun D, Fox-Robichaud AE. Collaborator(s): Babul S, Brubacher J, Cullen N, De Beaumont L, de Guise E, De Matteo C, G elinas C, Gosselin N, Green R, Kramer A, Kutsogiannis J, Lamontagne M, Levine B, Marcoux J, McKerral M, Moore L, Ouellet M-C, Rizoli S, Rowe B, Scales D, Schachar R, Schneider K, Sutherland G, Swaine B, Tator CH, Teasell R, Wang YT, Van DonKelaar P, Wheele, A. CIHR Team Grant \$1,824,513.00 CAD. External funding partner: Ontario Neurotrauma Foundation \$100,000.00 CAD [Grants].
- 2015 - 2020 **Co-Investigator.** The NEUROlogically-impaired extubation Timing Trial (NEURO-ETT). Canadian Institutes of Health Research (CIHR). Co-PIs: Scales D, Ferguson N. Co-Is: Bosma K, Charbonney E, Griesdale D, Meade M, Seely A, Wilcox M, Alali A, Brochard L, Cuthbertson B, Mainprize T, Nathens A, Singh J, Zygun D, Baker A, Chapman M, Turgeon A, Adhikari N, Rubenfeld G. CIHR Operating Grant. \$880,404.00 CAD [Grants]
- 2012 – 2014 **Principal Investigator.** Cerebral Tissue Oxygen Saturation During Blood Transfusion in Severe Traumatic Brain Injured Patients. Co-PIs: Baker AJ, Collaborators: Hare G, Rigamonti A. Physicians Services Inc. Foundation Health Research Grant. \$46,500.00 CAD [Grants]

## Invited Lectures and Presentation

### Provincial

- 2015 **Invited Speaker.** Do We Need Specialized Neurocritical Care? Department of Critical Care Medicine Grand Rounds, University of Calgary, Calgary, Canada.
- 2015 **Invited Speaker.** Cerebral Tissue Oxygenation during a Blood Transfusion in Severe Traumatic Brain Injury. Neurosciences Grand Rounds, Winnipeg Health Sciences Centre, University of Manitoba, Canada.
- 2014 **Invited Speaker.** Does Neurocritical Care work? Department of Critical Care Medicine Grand Rounds, University of Manitoba, Winnipeg, Canada.

## National

2015 **Invited Speaker.** Do We Need Specialized Neurocritical Care? Department of Critical Care Medicine Grand Rounds, Kingston General Hospital, University of Queens, Canada.

## Local

2015 **Moderator.** Managing the Injured Brain. Critical Care Canada Forum. Toronto, Ontario, Canada. Presenter(s): Baker AJ.

2015 **Invited Speaker.** Continuous EEG - A Standard in Canada? Critical Care Canada Forum. Toronto, Ontario, Canada.

2015 **Invited Speaker.** Cerebral Tissue Oxygenation during a Blood Transfusion in Severe Traumatic Brain Injury. Neurosciences Grand Rounds, University of Toronto Critical Care Physiology Rounds, Toronto, Canada.

2015 **Invited Speaker.** Do We Need Specialized Neurocritical Care? Department of Critical Care Medicine Grand Rounds, Sunnybrook Health Sciences Centre, Toronto, Canada.

2015 **Invited Speaker.** Does Adult Neurocritical Care work? Department of Critical Care Medicine Research Rounds, SickKids, Toronto, Canada.

2014 **Invited Speaker.** Timing of Withdrawal of Life Support in Patients with Severe Traumatic Brain Injury does not Explain Variations in Mortality. Annual Visiting Professor in Trauma Research Symposium. Division of General Surgery, University of Toronto.

2014 **Invited Speaker.** Transfusion Thresholds in Acute Brain Injury. Critical Care Challenges Conference, Sunnybrook Health Sciences Centre, Toronto, Canada.

## Honours and Awards

2014 The Garner King Award Best Scientific Poster at the Canadian Critical Care Forum, Toronto



**Dr. Dominique Piquette (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journals**

**Piquette D**, Moulton CA, LeBlanc VR. Creating learning momentum through overt teaching interactions during real acute care episodes. *Advances in health sciences education: theory and practice*. Oct 2015;20(4):903-914. **Principal Author**.

**Piquette D**, LeBlanc VR. Five Questions Critical Care Educators Should Ask About Simulation-Based Medical Education. *Clinics in chest medicine*. Sept 2015;36(3):469-479. **Principal Author**.

**Piquette D**, Moulton CA, LeBlanc VR. Balancing care and teaching during clinical activities: 2 contexts, 2 strategies. *Journal of critical care*. Aug 2015;30(4):678-684. **Principal Author**.

**Piquette D**, Moulton CA, LeBlanc VR. Model of interactive clinical supervision in acute care environments. Balancing patient care and teaching. *Annals of the American Thoracic Society*. Apr 2015;12(4):498-504. **Principal Author**.

**Piquette D**, LeBlanc VR. Five questions critical care educators should ask about simulation-based medical education. *Clinics in Chest Medicine*. 2014 Dec 23. **Principal Author**.

**Piquette D**, Moulton CA, LeBlanc VR. Creating learning momentum through ovurt teaching interactions during real acute episodes. *Advances in Health Science Education*. 2014 Nov. **Principal Author**.

**Piquette D**, Mylopoulos M, LeBlanc VR. Clinical supervision and learning opportunities during simulated acute care scenarios. *Medical Education*. 2014;48; 820-830. **Principal Author**.

**Piquette D**, Tarshis J, Sinuff T, Fowler RA, Pinto R, LeBlanc VR. Impact of acute stress on resident performance during simulated resuscitation episodes: A prospective randomized cross-over study. *Teaching and learning in medicine*. 2014;26;9-16. **Principal Author**.

**Peer-Reviewed Fundings**

2015 - present

**Co-Investigator**. Establishing Feasibility & Safety of Providing Critical Care for Patients with Ebola through design of a simulated Ebola Treatment Centre. PIs: Fowler R, Adhikari N. Co-PI: Bah E, Chan A, Christian M, Hajek J, Hall T, Laham M, Lamontagne F, Marshall J, Mishra S, Murthy S, Piquette D, Simor A, Vanderschuren A. CIHR Operating Grant - Innovative Ebola Research Grants Funds: \$250,000.00 CAD [Grants]

- 2015 Sept – 2016 Dec **Principal Investigator.** Physicians' lived experience of end of life discussions during acute hospitalizations: A phenomenological study. PI: El-Rouby D. Granting Agency: The Physicians' Services Incorporated Foundation Funds: \$4,500.00.00 CAD [Grants]
- 2015 Mar – 2016 Mar **Principal Investigator.** Effects of level of trainee autonomy during acute care episodes on learning of technical and non-technical skills to prevent harm. Co-PI: Brydges R, Lee C, Goffi A, Amaral AC, Ringsted C. Granting Agency: Sunnybrook Education Advisory Council (SEAC) and Education Research Unit (ERU) Education Research and Scholarship Grant Funds: \$10,000.00 CAD [Grants]
- 2014 Jun – 2016 Jun **Co-Investigator.** Therapeutic Alliance in the ICU: Enhanced Information to Facilitate Decision-Making. Ontario Ministry of Health and Long-Term Care. \$99,949.00 CAD. PI: Amaral A. Collaborator(s): Gotlib L, Dev S, Taylor P, Downar J. [Grant]
- 2013 Jun – 2015 Jun **Co-Investigator.** Developing a simulation scenario design process for the training and study of adaptive expertise. Royal College of Physicians and Surgeons of Canada. PIs: Brydges R, Mylopoulos M. Collaborators: Stroud L, Farhat W, Satterthwaite L. \$25,000.00 CAD. [Grants]
- 2011 Sept – 2014 Sept **Principal Investigator.** Clinical Supervision during Acute Resuscitation: How to Balance Patient Safety and Resident Learning CIHR Fellowship – In the area of Clinical Research. Canadian Institute of Health Research. \$165,000.00 CAD [Grants]

## Invited Lectures and Presentation

### International

- 2014 Aug **Invited Speaker.** AMEE Conference. Level of supervision and learning in acute care environment. Milan, Italy.

### Provincial

- 2015 Jun 9 **Presenter.** Parshuram C, Piquette D. INCURS: Intensive Care Unit Resident Schedule Study. The Canadian Critical Care Trial Group Spring Meeting. Montebello, Quebec.

### National

- 2014 Apr **Presenter.** 12th Canadian Conference on Medical Education. Balancing patient care and learning during clinical activities: Two contexts, two strategies; Shifts to learning during acute care episodes: Triggers, hindrances, strategies, and momentum – Posters. Presenters: Moulton CA, LeBlanc VR. Ottawa, Ontario, Canada.

## Local

- 2015 Jun 2 **Invited Speaker.** Competency by Design: Is it for us? Arts Slutsky Day, Interdepartmental Division of Critical Care Medicine, University of Toronto, Toronto, Ontario, Canada.
- 2015 May 28 **Invited Speaker.** Resident Autonomy: How much is enough? Challenges in designing medical education research. CCM Research Rounds, Department of Critical Care Medicine, Sick Kids Hospital. Toronto, Ontario, Canada.
- 2015 Apr 1 **Invited Speaker.** Inter-Professional Problem-Based Learning. The Gathering. Department of Critical Care Medicine, Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.
- 2014 Jun **Invited Speaker.** University of Toronto Critical Care Medicine Program Resident Day. Different perspectives on clinical supervision and learning. Toronto, Ontario, Canada.
- 2014 May **Invited Speaker.** Wilson Centre Research Rounds. Clinical supervision and learning in acute care environments: A multifaceted relationship. Toronto, Ontario, Canada.
- 2014 Mar **Presenter.** The Hodges Education Scholarship International Symposium. Fostering learning while caring for critically ill patients: Different contexts, different strategies – Poster. Presenters: Moulton CA, LeBlanc VR. Toronto, Ontario, Canada.
- 2014 Jan **Invited Speaker.** Medical Educational. Mixed Methods Research: The art of combining multiple ingredients. Toronto, Ontario, Canada.

## Honours and Awards

- 2015 Apr Teaching & Learning in Medicine Editor's Choice Award, Best Paper 2015 in the Teaching & Learning in Medicine Journal.

**Dr. Louise Rose (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journals**

Luk E, Burry L, Rezaie S, Mehta S, **Rose L**. Critical care nurses' decisions regarding physical restraints in two Canadian ICUs: a prospective observational study. *Dynamics*. 2015;26(4):16-22. **Senior Responsible Author.**

**Rose L**, Burry L, Mallick R, Luk E, Cook D, Fergusson D, Dodek P, Burns K, Granton J, Ferguson N, Devlin JW, Steinberg M, Keenan S, Reynolds S, Tanios M, Fowler R, Jacka M, Olafson K, Skrobik Y, Mehta S for the SLEAP investigators and Canadian Critical Care Trials Group . Prevalence, risk factors and outcomes associated with physical restraint use in mechanically ventilated adults. *Journal of Critical Care*. E-pub ahead of print Oct 2015. **Principal Author.**

Digby GC, Keenan SP, Parker CM, Sinuff T, Burns KE, Mehta S, Ronco JJ, Kutsogiannis DJ, **Rose L**, Ayas NT, Berthiaume LR, D'Arsigny CL, Stollery DE, and Muscedere J. Non-Invasive Ventilation Practice Patterns in Canadian Tertiary Care Centers: A Descriptive Analysis *Canadian Respiratory Journal*. Oct 2015. **Coauthor or Collaborator.**

Webster F, Christian J, Mansfield E, Abrams H, Akhtar S, Bhatia S, Bhattacharyya O, Dorian P, Fraser I, Hawker G, Levinson W, Meshkat N, Mohammed T, Naglie G, Nowaczynski M, Pham T, **Rose L**, Schull M, Sinha S, Smith-Carrier T, Stergiopoulos V, Upshur R, Wilson L, Young T, and on behalf of the BRIDGES Collaborative. Capturing the experiences of patients across multiple complex interventions: a pragmatic qualitative approach. *BMC*. 5:e007664 doi:10.1136/bmjopen-2015-007664. **Coauthor or Collaborator.**

Blackwood B, Ringrow S, Clarke M, Marshall J, **Rose L**, Williamson P, McAuley D. COVenT - Core Outcomes in Ventilation Trials: protocol for a core outcome set using a Delphi survey with a nested randomised trial and observational cohort study. *Trials*. 16(1):368. **Coauthor or Collaborator.**

Blackwood B, Marshall J, **Rose L**. Progress on core outcomes sets for critical care research *Current Opinion in Critical Care*. 21(5):439-44. **Senior Responsible Author.**

**Rose L**, Adhikari NKJ, Leasa D, Fergusson DA, McKim D. Cough augmentation techniques for extubation and weaning of critically ill patients (protocol) *Cochrane Database of Systematic Reviews Issue 8*. Art. No.: CD011833. DOI: 10.1002/14651858.CD011833). **Principal Author.**

Burry L, Mehta S, Williamson DR, Hutton B, Ely EW, Adhikari NK, Egerod I, Fergusson DA, **Rose L**. Pharmacological interventions for the treatment of delirium in critically ill patients -protocol. *Cochrane Database of Systematic Reviews 2015, Issue 6*. Art. No.: CD011749. **Senior Responsible Author.**

Fowler R, Abdelmalik P, Adhikari N, Bagshaw S, Bandunik N, Cook D, Dodek P, Foster D, Foster R, Gibney N, Granton J, Green R, Hill A, Jouvet P, Kumar A, Lamontagne F, Lawless B, Marshall J, Martin C, **Rose L**, Scales D, Shaw S, Stelfox H, Turgeon A, Wood G. Critical care capacity in Canada: results of a national cross-sectional study. *Critical Care Apr* 1;19(1):133. **Coauthor or Collaborator.**

**Rose L**, Schultz MJ, Cardwell C, Jouvet P, McAuley DF, Blackwood B. Automated versus non-automated weaning for reducing the duration of mechanical ventilation for critically ill adults and children. *Critical Care* Feb 24;19(1): 48. **Principal Author.**

McKim D, **Rose L**. Efficacy of mechanical insufflation-exsufflation in extubating unweanable subjects with restrictive pulmonary disorders. *Respir Care*. 60(4):621-2. **Senior Responsible Author.**

Leung D, Blastorah M, Nusdorfer L, Jeffs A, Jung J, Howell D, Fillion L, **Rose L**. Nurses' experiences of patients with chronic critical illness and their families: a qualitative interview study. *Nursing in Critical Care*. E-pub Feb 18. **Senior Responsible Author.**

**Rose L**, McKim D, Katz S, Leasa S, Nonoyama M, Pedersen C, Goldstein R, Road J. for the CANuVENT group. Home mechanical ventilation in Canada: A national survey. *Respiratory Care* 60(5):695-704. **Principal Author.**

**Rose L**, Fitzgerald E, Cook D, Scott K, Steinberg M, Devlin JW, Ashley B-J, Dodek P, Smith O, Poretta K, Lee Y, Burns K, Harvey J, Skrobik Y, Fergusson D, Meade M, Kraguljac A, Burry L, Mehta S, for the SLEAP Investigators and the Canadian Critical Care Trials Group. Clinician perspectives on protocols designed to minimize sedation. *Journal of Critical Care*. 30:348-52. **Principal Author.**

**Rose L**, Fowler R, Leasa D, Fan E, Fraser I, Mawdsley C, Rubenfeld G. for the CANuVENT group. (Prolonged mechanical ventilation in Canada: a national survey. *Journal of Critical Care*. 30:25-31. **Principal Author.**

**Rose L**, McKim D, Katz S, Leasa S, Nonoyama M, Pedersen C, Avendano M, Goldstein R. for the CANuVENT group. Provision of institutional care for long-term mechanical ventilation in Canada: A national survey. *Canadian Respiratory Journal*. 2014;21:357-362. **Principal Author.**

**Rose L**, Dainty K, Jordan J, Blackwood B. Weaning adults and children from mechanical ventilation: a scoping review of qualitative studies. *American Journal of Critical Care*. 2014; 23(5):e54-70. **Principal Author.**

Burry L, **Rose L**, Ferguson N, McCullagh I, Ferguson, D, Mehta S. Daily sedation interruption versus no daily sedation interruption for critically ill adult patients requiring mechanical ventilation. *Cochrane Database of Systematic Reviews*. 2014;7. **Coauthor or Collaborator.**

Rose L, Schultz MJ, Cardwell C, Jouvet P, McAuley DF, Blackwood B. Automated versus non-automated weaning for reducing the duration of mechanical ventilation for critically ill adults and children (Review update). *Cochrane Database of Systematic Reviews*. 2014;6. **Principal Author.**

Cederwal C-J, Plos K, **Rose L**, Dúbeck A, Ringdall M. Critical care nurses management of prolonged weaning from ventilation: an interview study. *Nursing in Critical Care* A, Ringdal M. *Nurs Crit Care*. 2014.19(5):236-42. **Coauthor or Collaborator.**

**Rose L**, Fowler R, Kat, S, Leasa D, McKim, D. for the CANuVENT group. Definitional criteria for patient transitions relevant to prolonged and long-term mechanical ventilation: A Delphi Study. *Canadian Respiratory Journal*. 2014. **Principal Author.**

Burry L, Williamson DR, Perreault MM, **Rose L**, Cook DJ, Ferguson N, Wong Z, Lapinsky SC, Mehta S. Analgesic, sedative, antipsychotic, and neuromuscular blocker use in Canadian ICUs: a prospective, multicenter, observational study. *Canadian Journal of Anaesthesia*.2014;61(7):619-30. **Coauthor or Collaborator**.

Francis JJ, Duncan EM, Prior ME, MacLennan GS, Dombrowski SU, Bellingan G, Campbell MK, Eccles MP, **Rose L**, Rowan KM, Shulman R, Wilson APR, Cuthbertson BH. (2014) Selective decontamination of the digestive tract in critically ill patients treated in Intensive Care Units: a mixed-methods feasibility study (the SuDDICU study). *Health Technology Assessment*. 2014;18; 25. **Coauthor or Collaborator**.

Duncan EM, Cuthbertson BH, Prior ME, Marshall AP, Wells EC, Todd LE, Bolsover D, Newlands RS, Webster F, **Rose L**, Campbell MK, Bellingan G, Seppelt IM, Francis JJ. The views of health care professionals about Selective Decontamination of the Digestive tract: an international, theoretically-informed interview study. *Journal of Critical Care*. 2014.29(4):634-40. **Coauthor or Collaborator**.

Sneyers B, Luk E, **Rose L**, Williamson DR, Perreault MM, Wong Z, Lapinsky S, Mehta S, Burry L. Factors influencing the use of physical restraints in Canadian ICUs. *Critical Care*. 2014;18(2):R46. **Coauthor or Collaborator**.

Blackwood B, Clarke C, McAuley D, McGuigan P, Marshall J, **Rose L**. How outcomes are defined in clinical trials of critically ill ventilated adults and children. *American Journal of Respiratory and Critical Care Medicine*. 2014;189(8):886-93. **Senior Principal Author**.

**Rose L**, Kenney L, Tait G, Mehta S. Acceptable ventilator settings and monitoring parameter ranges for initiation of controlled mechanical ventilation. *Journal of Critical Care*. 2014;29(1):123-7. **Principal Author**.

**Rose L**. Nonoyama M, Rezaie S, Fraser I. Health related quality of life, psychological wellbeing and memories of intensive care and a specialized weaning centre reported by survivors of prolonged mechanical ventilation *Intensive and Critical Nursing*. 2014;30(3):145-51. **Principal Author**.

Marshall AP, Weisbrodt L, **Rose L**, Duncan EM, Prior M, Todd L, Wells E, Seppelt I, Cuthbertson, BH, Francis JJ. Implementing Selective Digestive Decontamination in the intensive care unit: A qualitative analysis of nurse-identified considerations. *Heart & Lung*. 2014;43(1):13-8. **Coauthor or Collaborator**.

## Papers

Herridge MS, Chu LM, Matte A, Tomlinson G, Chan L, Thomas C, Friedrich JO, Mehta S, Lamontagne F, Levasseur M, Ferguson ND, Adhikari NK, Rudkowski JC, Meggison H, Skrobik Y, Flannery J, Bayley M, Batt J, dos Santos C, Abbey SE, Tan A, Lo V, Mathur S, Parotto M, Morris, D, Flockhart L, Fan E, Lee SM, Wilcox ME, Ayas N, Choong K, Fowler R, Rubenfeld GD, Scales D C, Sinuff T, Cuthbertson BH, **Rose L**, Robles P, Burns S, Cypel M, Singer L, Chaparro C, Chow C, Keshavjee S, Brochard L, Hebert P, Slutsky AS, Marshall JC, Cook D, Cameron JI. The RECOVER Program: One-Year Disability in Critically Ill Patients Mechanically Ventilated (MV) for 7 Days. Submitted to the *New England Journal of Medicine*. 2014. **Coauthor or Collaborator**.

Cameron JI, Chu LM, Matte A, Tomlinson G, Chan L, Thomas C, Friedrich JO, Mehta S, Lamontagne F, Levasseur M, Ferguson ND, Adhikari NK, Rudkowski JC, Meggison H, Skrobik Y, Flannery J, Bayley M, Batt J, dos Santos C, Abbey SE, Tan A, Lo V, Mathur S, Parotto M, Morris D, Flockhart L, Fan E, Lee SM, Wilcox ME, Ayas N, Choong K, Fowler R, Rubenfeld GD, Scales D, C, Sinuff T, Cuthbertson BH, **Rose L**, Robles P, Burns S, Cypel M, Singer L, Chaparro C, Chow C, Keshavjee S, Brochard L, Hebert P, Slutsky AS, Marshall JC, Cook D, Herridge MS. The RECOVER Program: One-Year Outcomes in Caregivers of Critically Ill Patients Mechanically Ventilated for 7 Days. Submitted to the New England Journal of Medicine. 2014. **Coauthor or Collaborator**.

Thiboutot Z, Perreault MM, Williamson DR, Mehta S, **Rose L**, Lapinsky S, Cook D, Burry L. Delirium screening and use of antipsychotics in mechanically ventilated patients in Canadian intensive care units. Submitted to Annals of Pharmacotherapy. 2014. **Coauthor or Collaborator**.

### Abstracts

**Rose L**, Atzema C, Scales D, Burns K, Gray S, Kiss A, Rubenfeld G, Lee J. Emergency department length of stay for critical care admissions: a Canadian population-based study. Intensive Care Medicine. 2014;40(Suppl 1);A0413. **Principal Author**.

**Rose L**, Burry L, Mallick R, Luk E, Cook D, Fergusson D, Steinberg M, Granton J, Herridge M, Ferguson N, Devlin J, Tanios M, Dodek P, Fowler R, Burns K, Jacka M, Olafson K, Skrobik Y, Hebert P, Meade M, Mehta S for the SLEAP investigators and Canadian Critical Care Trials Group. Predictors of Restraint use in the SLEAP trial: a Multicenter Randomized Trial comparing Protocolized Sedation with Daily Sedation Interruption versus Protocolized Sedation Alone in mechanically ventilated adults. Intensive Care Medicine. 2014;40(Suppl 1);A0916. **Principal Author**.

**Rose L**, Leasa D, McKim D, Nonoyama M, Avendano M, Goldstein R. Provision of Institutional Care for Long-Term Mechanical Ventilation in Canada: A National Survey, American Journal of Respiratory and Critical Care Medicine. 2014;189;A5372. **Principal Author**.

### Book Chapters

Rose L, Butcher R. Ventilation and Oxygenation Management. In ACCCN's Critical Care Nursing 3rd edition, Elsevier Australia (in press). **Principal Author**.

### Peer-Reviewed Fundings

2015 **Co-Investigator**. Pain, agitation, and delirium management in critically ill patients with traumatic brain injuries: a multi-centre prospective observational study. Canadian Society of Hospital Pharmacists. Co-PI: Perreault M, Burry L, Dewhurst N, Seungjoo L, Singh J, Mehta S, Williamson, D. \$2,800.00 CAD. [Grants]

2015 **Co-Investigator**. Sedation and delirium in the ICU: network meta-analyses. CIHR Spring Knowledge Synthesis Grant. Co-PI: Burry L, Hutton B, Martin C, Adhikari N, Beduz M, Bell C, Cameron C, Egerod I, Ely W, Ferguson N, Fergusson D, Kanji S, McIntyre L, Mehta S, Moher D, Skrobik Y, Strauss S, Williamson D. \$90,000.00 CAD. [Grants]

- 2015 **Co-Investigator.** Feasibility assessment of the Electrolarynx for enabling communication in the chronically critically ill. STTI Research Seed Grant. Co-PI: Rose L, Dale C, Istanbulian L, Fraser I, Grey J, Silencieux S, Smith O, Amaral A, Cuthbertson B. \$1,000.00 CAD. [Grants]
- 2015 **Co-Investigator.** Advancing patient-oriented outcomes in oral hygiene: Experiences and recommendations of critical care survivors. Sunnybrook Practice Based Research Fund Co-PI: Dale C, Rose L, Sinuff T, Montgomery K, Thompson B, Farrow N, Sutherland S. \$10,000.00 CAD. [Grants]
- 2015 **Co-Investigator.** Translating recommendations for airway clearance from the Canadian Thoracic Society Home Mechanical Ventilation Guidelines (Phase 1) Muscular Dystrophy Canada Respiratory Care Grant. Co-PI: Rose L, McKim D, Road J, Dainty K, Leasa D, Nonoyama M, Tandon A, Kaminska M, O'Connell C, Loewen A, Johnston M, Sinuff T. \$49,505.00 CAD. [Grants]
- 2015 **Co-Investigator.** Health service utilization and costs in children receiving long-term home mechanical ventilation in Ontario. Ontario Thoracic Society. Co-PI: Amin R, Cohen E, Kiss A, Isaranuwaitchai W, Hocj J, Guttman A, Gershon A, \$49,564.00 CAD. [Grants]
- 2015 **Co-Investigator.** Efficacy and safety of melatonin for prevention of delirium in critically ill patients - A multi-centre, randomized, double blind, placebo-controlled feasibility study. Centre for Collaborative Drug Research. Co-PI: Burry L, Boon H, Scales D, Fan E, Azar A, Williamson D, Wilcox L, Bell C, Mehta S. \$50,000.00 CAD. [Grants]
- 2015 **Co-Investigator.** Predictors and prevalence of difficulty accessing the mouth as a result of oral hygiene barriers in critically ill adults: an observational study. Canadian Association of Critical Care Nurses. Co-PI: Dale C, Smith O, Burry L, Pinto R. \$2,500.00 CAD. [Grants]
- 2015 **Co-Investigator.** Feasibility Assessment and Development of a Training Video for the Electrolarynx for Enabling Communication in the CHrOnically Critically Ill (EECCHO) TEGH Foundation Research Fund. Co-PI: Grey J, Istanbulian L, Fraser I, Grey J, Silencieux S, Dev S. \$10,000.00 CAD. [Grants]
- 2014 **Investigator.** Rose L, McKim D, Leasa S, Nonoyama M, Tandon A, Amin R, Katz S, Goldstein R, Gershon A. Health service utilization for assessment, monitoring and management of respiratory complications for individuals with neuromuscular disease. Muscular Dystrophy Canada Respiratory Care Grant. 2014. \$49,690.00 CAD. [Grants]
- 2014 **Investigator.** Rose L, Adhikari N, Leasa D, Fergusson D, Fraser I, McKim D. Cough augmentation techniques to optimize weaning success and prevent reintubation for critically ill patients. CIHR Knowledge Synthesis Grant. \$81,722.00 CAD. [Grants]



- 2014 **Investigator.** Rose L, Amin R, Dale C, Varadi R, Amaria K, Goldstein R. The Transition of Teenagers receiving long-term domiciliary mechanical Ventilation to adult care: The TTEEN VENT STUDY. Ontario Respiratory Care Society Research. \$20,627.00 CAD. [Grants]
- 2014 **Investigator.** Dale C, Angus J, Sutherland S, Yarascavitch C, Dev S, **Rose L.** Video-facilitated exploration and analysis of identified oral hygiene barriers, modifiable antecedents and recommended interventions for intubated and mechanically ventilated critically ill adults. A Pilot Study. Sigma Theta Tau Seed. \$1,000.00 CAD. [Grants]
- 2014 **Investigator.** Rose L, Fraser I, Istanbulian L, Malus E. The Prolonged-Ventilation Weaning Centre (PWC) Teleconsultation Service for Weaning from Prolonged Mechanical Ventilation. TEGH Community Based Research Fund. \$9,991.00 CAD. [Grants]

## Invited Lectures and Presentation

### International

- 2015 Nov 5 – 6 **Invited Speaker.** Interprofessional Collaboration: an Imperative for Early Mobilization. 3rd European Conference on Weaning and Rehabilitation. Copenhagen, Denmark.
- 2015 Jan 28 – 30 **Invited Speaker.** Care of the Critically Ill in Resource Poor Countries (Keynote). European Federation of Critical Care Nurse Associations International Meeting, Valencia, Spain.
- 2014 Nov 30 **Invited Speaker.** Approaches to Prolonged Weaning (Plenary session) South African Critical Care Congress. Cape Town, South Africa.
- 2014 Sept 27 – Oct 1 **Oral presentation.** Predictors of Restraint use in the SLEAP trial: a Multicenter Randomized Trial comparing Protocolized Sedation with Daily Sedation Interruption versus Protocolized Sedation Alone in mechanically ventilated adults. 26<sup>th</sup> Annual Congress European Society of Intensive Care Medicine. Presenters: Burry L, Mallick R, Luk E, Cook D, Fergusson D, Steinberg M, Granton J, Herridge M, Ferguson N, Devlin J, Tanios M, Dodek P, Fowler R, Burns K, Jacka M, Olafson K, Skrobic Y, Hebert P, Meade M, Mehta S for the SLEAP investigators and Canadian Critical Care Trials Group. Barcelona, Spain.

2014 Sept 27 – Oct 1      **Oral presentation.** Emergency department length of stay for critical care admissions: a Canadian population-based study 26<sup>th</sup> Annual Congress European Society of Intensive Care Medicine. Presenters: Atzema C, Scales D, Burns K, Gray S, Kiss A, Rubenfeld G, Lee J. , Barcelona, Spain.

2014 May 17-21      **Oral presentation.** Provision of Institutional Care for Long-Term Mechanical Ventilation in Canada: A National Survey. American Thoracic Society. Presenters: Leasa D, McKim D, Nonoyama M, Avendano M, Goldstein R. San Diego, California, United States.

### **Provincial**

2014 Oct 19-20      **Oral presentation.** Transitioning from hospital to home: The experiences of people requiring long term mechanical ventilation (LTMV) and their family caregivers: Preliminary Findings. Qualitative Health Research (QHR) Conference. Presenters: King J, Dale C, Nonoyama M, McKim D, Road J. Victoria, British Columbia, Canada.

### **Local**

2014 30 Jan – Feb 1      **Invited Speaker.** Weaning adults and children from mechanical ventilation: scoping review of qualitative studies. Better Breathing. Toronto, Ontario, Canada.

2014 Oct 30 – Nov 1      **Invited Speaker.** Improving clinical trials: outcomes – the definitions matter. Canada Critical Care Forum. Toronto, Ontario, Canada.

### **Honours and Awards**

2015      Fellow of the American Academy of Nurses (FAAN)

2015      Council of Ontario University Programs in Nursing, Practice Award Scholarship

**Dr. Gordon Rubinfeld (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journals**

McCredie VA, Alali AS, Xiong W, **Rubinfeld G**, Cuthbertson BH, Scales DC, Nathens AB. Timing of Withdrawal of Life-Sustaining Therapies in Severe Traumatic Brain Injury: Impact on Overall Mortality. *J Trauma Acute Care Surg*. 2015 Nov 21. [Epub ahead of print]. **Coauthor or Collaborator.**

Hough CL, Caldwell ES, Cox CE, Douglas IS, Kahn JM, White DB, Seeley EJ, Bangdiwala SI, **Rubinfeld G**, Angus DC, Carson SS, ProVent Investigators and the National Heart Lung and Blood Institute's Acute Respiratory Distress Syndrome Network. Development and Validation of a Mortality Prediction Model for Patients Receiving 14 Days of Mechanical Ventilation. *Crit Care Med*. 2015 Nov 1;43(11):2339-45. **Coauthor or Collaborator.**

Haas B, Gotlib Conn L, **Rubinfeld G**, Scales D, Amaral AC, Ferguson ND, Nathens AB. "It's Parallel Universes": An Analysis of Communication Between Surgeons and Intensivists. *Crit Care Med*. 2015 Oct 1;43(10):2147-54. **Coauthor or Collaborator.**

Goligher EC, Fan E, Herridge MS, Murray A, Vorona S, Brace D, Rittayamai N, Lanys A, Tomlinson G, Singh JM, Bolz SS, **Rubinfeld G**, Kavanagh BP, Brochard LJ, Ferguson ND. Evolution of Diaphragm Thickness During Mechanical Ventilation: Impact of Inspiratory Effort. *Am J Respir Crit Care Med*. 2015 Jul 13. [Epub ahead of print]. **Coauthor or Collaborator.**

Bosslet GT, Pope TM, **Rubinfeld G**, Lo B, Truog RD, Rushton CH, Curtis JR, Ford DW, Osborne M, Misak C, Au DH, Azoulay E, Brody B, Fahy BG, Hall JB, Kesecioglu J, Kon AA, Lindell KO, White DB, American Thoracic Society ad hoc Committee on Futile and Potentially Inappropriate Treatment, American Thoracic Society, American Association for Critical Care Nurses, American College of Chest Physicians, European Society for Intensive Care Medicine, Society of Critical Care. An Official ATS/AACN/ACCP/ESICM/SCCM Policy Statement: Responding to Requests for Potentially Inappropriate Treatments in Intensive Care Units. *Am J Respir Crit Care Med*. 2015 Jun 1;191(11):1318-30. **Coauthor or Collaborator.**

Kahn JM, **Rubinfeld G**. Reply: "an alternative perspective regarding the 'myth of the workforce crisis'" and "intensivist workforce in the United States: the crisis is real, not imagined". *Am J Respir Crit Care Med*. 2015 Mar;191(6):719. **Senior Responsible Author.**

**Rubinfeld G**. Confronting the frustrations of negative clinical trials in acute respiratory distress syndrome. *Ann Am Thorac Soc*. 2015 Mar 1;12 Suppl 1:S58-63. Principal Author.  
Niven DJ, Rubinfeld GD, Kramer AA, Stelfox HT. Effect of Published Scientific Evidence on Glycemic Control in Adult Intensive Care Units. *JAMA Intern Med*. 2015 Mar. [Epub ahead of print]. **Coauthor or Collaborator.**

Vincent JL, **Rubinfeld G**. Does intermediate care improve patient outcomes or reduce costs? *Crit Care*. 2015 Mar;19(1):89. **Senior Responsible Author.**

Goligher EC, Laghi F, Detsky ME, Farias P, Murray A, Brace D, Brochard LJ, Sebastien-Bolz S, **Rubinfeld G**, Kavanagh BP, Ferguson ND. Measuring diaphragm thickness with ultrasound in mechanically ventilated patients: feasibility, reproducibility and validity. *Intensive Care Med*. 2015 Feb. [Epub ahead of print]. **Coauthor or Collaborator**.

Morrison LJ, Brooks SC, Dainty KN, Dorian P, Needham DM, Ferguson ND, **Rubinfeld G**, Slutsky AS, Wax RS, Zwarenstein M, Thorpe K, Zhan C, Scales DC, on behalf of the Strategies for Post-Arrest Care Network. Improving Use of Targeted Temperature Management After Out-of-Hospital Cardiac Arrest: A Stepped Wedge Cluster Randomized Controlled Trial. *Crit Care Med*. 2015 Feb. [Epub ahead of print]. **Coauthor or Collaborator**.

Rose L, Fowler RA, Fan E, Fraser I, Leasa D, Mawdsley C, Pedersen C, **Rubinfeld G**, the CANuVENT group. Prolonged mechanical ventilation in Canadian intensive care units: A national survey. *J Crit Care*. 2015 Feb;30(1):25-31. **Coauthor or Collaborator**.

**Rubinfeld G**. Who Cares about Preventing Acute Respiratory Distress Syndrome? *Am J Respir Crit Care Med*. 2015 Feb;191(3):255-60. **Principal Author**.

Kahn JM, **Rubinfeld G**. The myth of the workforce crisis. Why the United States does not need more intensivists physicians. *Am J Respir Crit Care Med*. 2015 Jan;191(2):128-34. **Senior Responsible Author**.

Goligher EC, Kavanagh BP, **Rubinfeld G**, Ferguson ND. Pro: Physiologic Responsiveness Should Guide Entry into Randomized Controlled Trials. *Am J Respir Crit Care Med*. 2015 Jan. [Epub ahead of print]. **Coauthor or Collaborator**.

Feemster LC, Cooke CR, **Rubinfeld G**, Hough CL, Ehlenbach WJ, Au DH, Fan VS. The influence of hospitalization or intensive care unit admission on declines in health-related quality of life. *Ann Am Thorac Soc*. 2015 Jan;12(1):35-45. **Coauthor or Collaborator**.

da Costa L, Houlden D, **Rubinfeld 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*. 2015(120):249-53. **Coauthor or Collaborator**.

**Rubinfeld G**. ARDS: promising insights for a challenging syndrome. *Lancet Respir Med*. 2014 Dec;2(12):955-6. **Principal Author**.

Gershengorn HB, Wunsch H, Scales DC, Zarychanski R, **Rubinfeld G**, Garland A. Association between arterial catheter use and hospital mortality in intensive care units. *JAMA Intern Med*. 2014 Nov 17;4(11):1746-54. **Coauthor or Collaborator**.

Wilcox ME, Charbonney E, d'Empaire PP, Duggal A, Pinto R, Javid A, Dos Santos C, **Rubinfeld G**, Sutherland S, Liles WC, Glogauer M. Oral neutrophils are an independent marker of the systemic inflammatory response after cardiac bypass. *J Inflamm (Lond)*. 2014 Oct;11(1): 32. **Coauthor or Collaborator**.

Rose L, Fowler RA, Goldstein R, Katz S, Leasa D, Pedersen C, McKim D; CANuVENT Group. Patient transitions relevant to individuals requiring ongoing ventilatory assistance: a Delphi study. *Can Respir J*. 2014 Sept;21(5):287-92. **Coauthor or Collaborator**.

Curtis JR, **Rubinfeld G**. "No escalation of treatment" as a routine strategy for decision-making in the ICU: con. *Intensive Care Med*. 2014 Sept;40(9);1374-6. **Senior Responsible Author**.

Goligher EC, Kavanagh BP, **Rubinfeld G**, Adhikari NK, Pinto R, Fan E, Brochard LJ, Granton JT, Mercat A, Richard JC, Chretien JM, Jones GL, Cook DJ, Stewart TE, Slutsky AS, Meade MO, Ferguson ND. Oxygenation response to positive end-expiratory pressure predicts mortality in acute respiratory distress syndrome. A secondary analysis of the LOVS and ExPress trials. *Am J Respir Crit Care Med*. 2014 Jul;190(1);70-6. **Coauthor or Collaborator**.

Amaral AC, Barros BS, Barros CC, Innes C, Pinto R, **Rubinfeld G**. Nighttime cross-coverage is associated with decreased intensive care unit mortality. A single-center study. *Am J Respir Crit Care Med*. 2014 Jun;189(11);1395-401. **Senior Responsible Author**.

CCSC Task Force on Critical Care Educational Pathways in Internal Medicine. Training internists to meet critical care needs in the United States: a consensus statement from the Critical Care Societies Collaborative (CCSC). *Crit Care Med*. 2014 May 1;42(5);1272-9. **Coauthor or Collaborator**.

ProCESS Investigators, Yealy DM, Kellum JA, Huang DT, Barnato AE, Weissfeld LA, Pike F, Terndrup T, Wang HE, Hou PC, LoVecchio F, Filbin MR, Shapiro NI, Angus DC. A randomized trial of protocol-based care for early septic shock. *N Engl J Med*. 2014 May;370(18);1683-93. **Coauthor or Collaborator**.

CCSC Task Force on Critical Care Educational Pathways in Internal Medicine. Training internists to meet critical care needs in the United States: a consensus statement from the Critical Care Societies Collaborative (CCSC). *Crit Care Med*. 2014 May;42(5);1272-9. **Coauthor or Collaborator**.

Seely AJ, Bravi A, Herry C, Green G, Longtin A, Ramsay T, Fergusson D, McIntyre L, Kubelik D, Maziak DE, Ferguson N, Brown SM, Mehta S, Martin C, **Rubinfeld G**, Jacono FJ, Clifford G, Fazekas A, Marshall J. Do heart and respiratory rate variability improve prediction of extubation outcomes in critically ill patients? *Crit Care*. 2014 Apr;18(2);R65. **Coauthor or Collaborator**.

Gershengorn HB, Garland A, Kramer A, Scales DC, **Rubinfeld G**, Wunsch H. Variation of arterial and central venous catheter use in United States intensive care units. *Anesthesiology*. 2014 Mar;120(3);650-64. **Coauthor or Collaborator**.

**Rubinfeld G**, Rhodes A. How many intensive care beds are enough? *Intensive Care Med*. 2014 Mar;40(3);451-2. **Principal Author**.

Botting MJ, Phan N, **Rubinfeld G**, Speke AK, Chapman MG. Using barriers analysis to refine a novel model of neurocritical care. *Neurocrit Care*. 2014 Feb;20(1);5-14. **Coauthor or Collaborator**.

Seely AJ, Bravi A, Herry C, Green G, Longtin A, Ramsay T, Fergusson D, McIntyre L, Kubelik D, Maziak DE, Ferguson N, Brown SM, Mehta S, Martin C, **Rubinfeld G**, Jacono FJ, Clifford G, Fazekas A, Marshall J; Canadian Critical Care Trials Group (CCCTG). Do heart and respiratory rate variability improve prediction of extubation outcomes in critically ill patients? *Crit Care*. 2014 Apr;18(2);R65. **Coauthor or Collaborator**.

## Peer-Reviewed Fundings

- 2014 Sep - 2016 Sep **Co-Investigator.** The Weaning and Variability Evaluation (WAVE) Research Program: pioneering a groundbreaking advance in assessment and prediction of extubation outcomes. Physicians' Services Incorporated Foundation (PSI). Health Research Grant. PI: Seely A, Ferguson N. Collaborator(s): Burns K, McIntyre L, Fergusson D, Ramsay T, Marshall JC, Martin C, Maziak D, Mehta S. \$169,285.00 CAD. [Grants]
- 2013 Oct - 2015 Oct **Co-Investigator.** Diaphragm Monitoring Techniques for Muscle-Protective Mechanical Ventilation: Evaluating Validity, Reliability and Feasibility. Physicians' Services Incorporated Foundation (PSI). PIs: Goligher E, Ferguson N. Collaborator(s): Laghi F, Kavanagh B. \$119,500.00 CAD. [Grants]
- 2013 Oct - 2015 Apr **Co-Investigator.** Intensive Care Rehabilitation Study (ICARuS): Barriers to Early Physical Rehabilitation in the ICU - A Delphi Study. Canadian Institutes of Health Research (CIHR). Health Research Grant. PI: Cuthbertson B. Collaborator(s): Fan E, Francis J, Goddard S, Kho M, Rose L. \$84,627.00 CAD. [Grants]
- 2013 Mar – 2015 Feb **Co-Investigator.** Shining a Light on End-of-Life Care in Canada: Investigating Barriers, Testing Interventions, and Disseminating Integrated Solutions for Patients, Families and Healthcare Professionals. University of Toronto. PI: Fowler R. \$187,790.00 CAD. [Grants]
- 2012 Oct – 2014 Mar **Co-Investigator.** Intensive Care Rehabilitation Study (ICARuS): Barriers to Early Physical Rehabilitation in the ICU - A Delphi Study. Physicians Services Incorporated Foundation (PSI). PI: Goddard S, Cuthbertson B. \$80,450.00 CAD. [Grants]
- 2012 Oct – 2014 Mar **Co-Investigator.** Intensive Care Rehabilitation Study (ICARuS): Barriers to Early Physical Rehabilitation in the ICU - A Delphi Study. Canadian Institutes of Health Research (CIHR). PI: Cuthbertson B. \$89,725.00 CAD. [Grants]
- 2012 Sept – 2014 Sept **Co-Investigator.** Diaphragm Monitoring Techniques for Muscle-Protective Mechanical Ventilation: Evaluating Validity, Reliability and Feasibility. Physicians' Services Incorporated Foundation (PSI). PI: Goligher E. Collaborator(s): Laghi F, Kavanagh B. \$115,558.35 CAD. [Grants]
- 2011 Apr – 2014 Mar **Co-Investigator.** Understanding Long-Term Mechanical Ventilation in Canada: A Programmatic Approach. Canadian Institutes of Health Research (CIHR). PI: Rose L. Collaborator(s): Amin R, Mawdsley C, Fan E, Folwer R, Fraser I, Goldsein R, Katz S, King J, Leasa D, McKim D, Nonoyama M, Road. \$349,863.00 CAD. [Grants]

2010 Apr – 2015 Mar **Co-Principal Investigator.** Trauma System Development in Canada: Overcoming the challenges of geography through an evaluation of structure and process. Canadian Institutes of Health Research (CIHR). PIs: Gagliardi A, Nathens A, Pong R. Colloaborator(s): Cusimano M, Hameed S, Lawless B, Morrison L, Pandya A, Peters P, Schwartz B, Snider C, Tallon J. \$400,000.00 CAD. [Grants]

### **Non-Peer-Review Funding**

2012 Oct - 2017 Sep **Co-Investigator.** Catecholamines as primary mediators of post-burn hypermetabolism: A clinical prospective trial. Canadian Institutes of Health Research (CIHR). PI: Jeschke M. Collaborator(s): Boehning D. \$851,939.00 CAD. [Grants]

### **Invited Lectures and Presentation**

#### **International**

- 2015 Jun 10 **Visiting Professor.** If you've seen one ICU, you've seen one ICU: the case for evidence based ICU organization. NYU Department of Medicine Grand Rounds. New York, United States.
- 2015 May 19 **Invited Speaker.** Clinical epidemiology and outcomes in critical illness syndromes: an international perspective of the clinician scientist. American Thoracic Society Annual Conference (ATS 2015). Denver, Colorado, United States.
- 2015 May 18 **Invited Speaker.** Potential Downsides of De-Adoption. American Thoracic Society Annual Conference (ATS 2015). Denver, Colorado, United States.
- 2015 Apr 25 **Invited Speaker.** Symposium 7 - Acute respiratory distress syndrome - "Has the Berlin ARDS definition changed anything?". 2015 Singapore ANZICS Intensive Care Forum. Singapore.
- 2015 Apr 25 **Invited Speaker.** Symposium 10 – Ethics and end-of-life care - "Challenging end of life cases; the end of futility?". 2015 Singapore ANZICS Intensive Care Forum. Singapore.
- 2015 Apr 24 **Invited Lecturer.** Plenary Lecture 1 - Why all our trials are failing, why we don't believe the positive ones, and mortality is still falling. 2015 Singapore ANZICS Intensive Care Forum. Singapore.
- 2015 Mar 20 **Invited Speaker.** A big waste of computer power? - Big data: Use and abuse. International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.

- 2015 Mar 19 **Invited Speaker.** Speaker CON : Does it help to know the patient has ARDS ? - Does it help to know the patient has ARDS ? International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 19 **Moderator.** My propositions for the next SSC guidelines - Standard presentation. International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 18 **Invited Speaker.** How much intensive care do we need? - ICU organization. International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 18 **Invited Speaker.** How do you do evidence-based quality improvement without evidence? - Challenging evidence-based medicine. International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 18 **Invited Speaker.** Start planning before the ICU - End-of-life issues. International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 18 **Invited Speaker.** In pandemics - Triage: The important criteria. International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 17 **Invited Speaker.** ARDS definitions: Who cares? - ARDS and sepsis: Incidences and outcomes. International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Jan 18 **Invited Speaker.** Evidence-Based Mechanical Ventilation in the ICU - YOUR TALK: Evidence-Based Approaches to Mechanical Ventilation in Acute Respiratory Distress Syndrome. Society of Critical Care Medicine Conference 2015 (SCCM). Phoenix, Arizona, United States.
- 2014 Dec 10 **Invited Speaker.** Joint Pulm/CC and Surg CC visit at University of Pennsylvania. Pulmonary Grand Rounds, "ARDS: If Belin is the answer, what is the question?"; End of life care in the SICU: can intensivists and surgeons see eye to eye? Pennsylvania, United States.
- 2014 Sep 27 – Oct 5 **Presenter.** 27th Annual European Society of Intensive Care Medicine Conference. LUNG SAFE Steering Committee Meeting; ESICM/SCCM Guideline Revision Task Force Barcelona; Spain
- 2014 June 4-7 **Invited Speaker.** Aspen lung conference 2014. The Trials and Tribulations of Conducting Multicenter Clinical Trials. Aspen, United States.
- 2014 May 15-17 **Presenter.** International Symposium on Intensive Care and Emergency Medicine. Round Table Conference - Evidence-based care: new directions Brussels, Belgium.



- 2014 May 15 **Invited Speaker.** The 61st Annual Meeting of the Japanese Society of Anesthesiologists. The Berlin Definition: Does it fix anything? Tokyo, Japan.
- 2014 Apr 9 **Visiting Professor.** Brigham and Women's Hospital Grand Rounds, 2014 Leroy Vandam Lecture. Long term outcomes after critical illness: How bad? How flexible? Massachusetts, United States.
- 2014 Mar 19-20 **Invited Speaker.** International Symposium on Intensive Care and Emergency Medicine. A hard Canadian experience - End-of-life care; What would you do when there is little evidence? - Guidelines and bundles; Long-term outcomes: How is it fixable? - After the ICU; Many strategies for cost containment are not cost saving - ICU staffing. Brussels, Belgium.
- 2014 Mar 18 **Moderator.** International Symposium on Intensive Care and Emergency Medicine. Big data - Standard presentation. Brussels, Belgium.
- 2014 Jan 12-14 **Participant.** Society of Critical Care Medicine. Sepsis Definitions Task Force Meeting. California, United States.

## Local

- 2015 Oct 25 **Invited Speaker.** We Need More Epidemiology! CCCF/CCCS Critical Care Fellows' Day 2015. Toronto, Ontario, Canada.
- 2015 Oct 25 **Invited Speaker.** Unintended consequences of fixed treatment protocols. ISF 2015 Stephen F. Lowry Colloquium on Precision Medicine in Sepsis: Rapid Diagnosis and Targeted Therapy. Toronto, Ontario, Canada.
- 2015 Jan 26 **Invited Lecturer.** How to Get Published (an editor's perspective). Collaborative Program in Resuscitation Sciences (CPRS), University of Toronto. Toronto, Ontario, Canada.
- 2014 Oct 29 - 31 **Invited Speaker.** Critical Care Canada Forum - CCCF/CCCS Residents' Day 2014. Terminal Debate 'TERMINAL' DEBATE - BIG DATA - Save Us from Big Data; Taking End of Life Seriously - I - Wrong Assumptions about Cost Savings; What is ARDS? - ARDS - The 'Real' Definition. Toronto, Ontario, Canada.
- 2014 Apr 28 - 29 **Invited Speaker.** Research in Motion 2014, Emergency Medicine, University of Toronto. Round Table Discussion; Scientific Sessions 5: Curbside Research. Toronto, Ontario, Canada.
- 2014 Feb 28 **Participant.** 2014 Trauma Conference, Sunnybrook Health Sciences Centre. Toronto, Ontario, Canada.

**Dr. Damon Scales (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journals**

Rubulotta F, **Scales DC**, Halpern SD. Night shifts, human factors, and errors in the ICU: a causal pathway? 2015 Dec 7. **Senior Responsible Author.**

McCredie VA, Alali AS, Xiong W, Rubenfeld GD, Cuthbertson BH, **Scales DC**, Nathens AB. Timing of Withdrawal of Life-Sustaining Therapies in Severe Traumatic Brain Injury: Impact on Overall Mortality. J Trauma Acute Care Surg. 2015 Nov 21. **Coauthor or Collaborator.**

Czarnecki A, Morrison LJ, Qiu F, Cheskes S, Koh M, Wijeyesundera HC, Verbeek PR, Austin PC, Dorian P, **Scales DC**, Tu JV, Ko DT. Association of prior  $\beta$ -blocker use and the outcomes of patients with out-of-hospital cardiac arrest. Am Heart J. 2015 Nov 1;170(5):1018-1024.e2. **Coauthor or Collaborator.**

**Scales DC.** The Implications of a Tracheostomy for Discharge Destination. Am J Respir Crit Care Med. 2015 Aug 15;192(4):404-5. **Principal Author.**

Redelmeier DA, **Scales DC.** Missing the Diagnosis of Brain Death as a Self-Erasing Error. Am J Respir Crit Care Med. 2015 Aug 1;192(3):280-2. **Senior Responsible Author.**

Haas B, Gotlib Conn L, Rubenfeld GD, **Scales DC**, Amaral AC, Ferguson ND, Nathens AB. "It's Parallel Universes": An Analysis of Communication Between Surgeons and Intensivists. Crit Care Med. 2015 Jul 15. Epub ahead of print. **Coauthor or Collaborator.**

Sathya C, Burd RS, Nance ML, Karanicolas PJ, Wales PW, **Scales DC**, Xiong W, Nathens AB. Concordance of performance metrics among US trauma centers caring for injured children. J Trauma Acute Care Surg. 2015 Jul 1;79(1):138-46. **Coauthor or Collaborator.**

Sathya C, Alali AS, Wales PW, **Scales DC**, Karanicolas PJ, Burd RS, Nance ML, Xiong W, Nathens AB. Mortality Among Injured Children Treated at Different Trauma Center Types. JAMA Surg. 2015 Jun 24. Epub ahead of print. **Coauthor or Collaborator.**

Wald R, McArthur E, Adhikari NK, Bagshaw SM, Burns KE, Garg AX, Harel Z, Kitchlu A, Mazer CD, Nash DM, **Scales DC**, Silver SA, Ray JG, Friedrich JO. Changing Incidence and Outcomes Following Dialysis-Requiring Acute Kidney Injury Among Critically Ill Adults: A Population-Based Cohort Study. Am J Kidney Dis. 2015 Jun;65(6):870-7. Epub 2014 Dec 18. **Coauthor or Collaborator.**

Sinuff T, Muscedere J, Rozmovitz L, Dale CM, **Scales DC.** A qualitative study of the variable effects of audit and feedback in the ICU. BMJ Qual Saf. 2015 Jun;24(6):393-9. **Senior Responsible Author.**

Morrison LJ, Brooks SC, Dainty KN, Dorian P, Needham DM, Ferguson ND, Rubenfeld GD, Slutsky AS, Wax RS, Zwarenstein M, Thorpe K, Zhan C, **Scales DC**; on behalf of the Strategies for Post-Arrest Care Network. Improving Use of Targeted Temperature Management After Out-of-Hospital Cardiac Arrest: A Stepped Wedge Cluster Randomized Controlled Trial. Crit Care Med. 2015 May;43(5):954-64. **Senior Responsible Author.**

Fowler RA, Abdelmalik P, Wood G, Foster D, Gibney N, Bandrauk N, Turgeon AF, Lamontagne F, Kumar A, Zarychanski R, Green R, Bagshaw SM, Stelfox HT, Foster R, Dodek P, Shaw S, Granton J, Lawless B, Hill A, Rose L, Adhikari NK, **Scales DC**, Cook DJ, Marshall JC, Martin C, Jouvett P, Canadian Critical Care Trials Group and The Canadian ICU Capacity Group. Critical Care capacity in Canada: results of a national cross-sectional study. Crit Care. 2015 Apr 1;19(1):133. **Coauthor or Collaborator.**

Parshuram CS, Amaral AC, Ferguson ND, Baker GR, Etchells EE, Flintoft V, Granton J, Lingard L, Kirpalani H, Mehta S, Moldofsky H, **Scales DC**, Stewart TE, Willan AR, Friedrich JO; for the Canadian Critical Care Trials Group. Patient safety, resident well-being and continuity of care with different resident duty schedules in the intensive care unit: a randomized trial. CMAJ. 2015 Mar 17;187(5):321-9. Epub 2015 Feb 9. **Coauthor or Collaborator.**

Archambault PM, Turgeon AF, Witteman HO, Lauzier F, Moore L, Lamontagne F, Horsley T, Gagnon MP, Droit A, Weiss M, Tremblay S, Lachaine J, Le Sage N, Émond M, Berthelot S, Plaisance A, Lapointe J, Razek T, van de Belt TH, Brand K, Bérubé M, Clément J, Grajales Iii FJ, Eysenbach G, Kuziemy C, Friedman D, Lang E, Muscedere J, Rizoli S, Roberts DJ, **Scales DC**, Sinuff T, Stelfox HT, Gagnon I, Chabot C, Grenier R, Légaré F; Canadian Critical Care Trials Group. Implementation and Evaluation of a Wiki Involving Multiple Stakeholders Including Patients in the Promotion of Best Practices in Trauma Care: The WikiTrauma Interrupted Time Series Protocol. JMIR Res Protoc. 2015 Feb 19;4(1):e21. Epub ahead of print. **Coauthor or Collaborator.**

Wald R, McArthur E, Adhikari NK, Bagshaw SM, Burns KE, Garg AX, Harel Z, Kitchlu A, Mazer CD, Nash DM, **Scales D**, Silver SA, Ray JG, Friedrich JO. Changing Incidence and Outcomes Following Dialysis-Requiring Acute Kidney Injury Among Critically Ill Adults: A Population-Based Cohort Study. Am J Kidney Dis. 2014 Dec 17. **Coauthor or Collaborator.**

**Scales DC.** Goal-directed cardiopulmonary resuscitation for patients in intensive care units. Am J Respir Crit Care Med. 2014 Dec 1;190(11):1205-6. **Principal Author.**

Lin S, **Scales D**, Dorian P, Kiss A, Common MR, Brooks SC, Goodman SG, Saliccioli JD, Morrison LJ. Targeted Temperature Management Processes and Outcomes After Out-of-Hospital Cardiac Arrest: An Observational Cohort Study. Crit Care Med. 2014 Dec;42(12):2565-74. **Coauthor or Collaborator.**

Redelmeier DA, Woodfine JD, Thiruchelvam D, **Scales D.** Maternal organ donation and acute injuries in surviving children. J Crit Care. 2014 Dec;29(6):923-9. **Senior Responsible Author.**

Dhanani S, Hornby L, Ward R, Baker A, Dodek P, Chamber-Evans J, Fowler R, Friedrich JO, Gow RM, Kutsogiannis DJ, McIntyre L, Momoli F, Morin K, Ramsay T, **Scales D**, Writer H, Yildirim S, Young B, Shemie S; Canadian Critical Care Trials Group and in collaboration with the Bertram Loeb Chair and Research Consortium in Organ and Tissue Donation. Vital signs after cardiac arrest following withdrawal of life-sustaining therapy: a multicenter prospective observational study. *Crit Care Med*. 2014 Nov;42(11);2358-69. **Coauthor or Collaborator**.

Gershengorn HB, Wunsch H, **Scales D**, Zarychanski R, Rubenfeld G, Garland A. Association Between Arterial Catheter Use and Hospital Mortality in Intensive Care Units. *JAMA Intern Med*. 2014 Nov;174(11);1746-54. **Coauthor or Collaborator**.

Wong MK, Morrison LJ, Qiu F, Austin PC, Cheskes S, Dorian P, **Scales D**, Tu JV, Verbeek PR, Wijeyesundera HC, Ko DT. Trends in Short- and Long-Term Survival Among Out-of-Hospital Cardiac Arrest Patients Alive at Hospital Arrival. *Circulation*. 2014 Nov 18;130(21);1883-90. **Coauthor or Collaborator**.

Alali AS, Naimark DM, Wilson JR, Fowler RA, **Scales D**, Golan E, Mainprize TG, Ray JG, Nathens AB. Economic Evaluation of Decompressive Craniectomy Versus Barbiturate Coma for Refractory Intracranial Hypertension Following Traumatic Brain Injury. *Crit Care Med*. 2014 Oct;42(10);2235-43. **Coauthor or Collaborator**.

Golan E, Barrett K, Alali AS, Duggal A, Jichici D, Pinto R, Morrison L, **Scales D**. Predicting neurologic outcome after targeted temperature management for cardiac arrest: systematic review and meta-analysis. *Crit Care Med*. 2014 Aug;42(8);1919-30. **Senior Responsible Author**.

Anand V, **Scales D**, Parshuram CS, Kavanagh BP. Registration and design alterations of clinical trials in critical care: a cross-sectional observational study. *Intensive Care Med*. 2014 May;40(5);700-22. **Coauthor or Collaborator**.

**Scales D**, Cuthbertson BH. Percutaneous dilatational tracheostomy: mostly safe, but do benefits outweigh risks? *Crit Care*. 2014 Mar 11;18(2);117. **Principal Author**.

Gershengorn HB, Garland A, Kramer A, **Scales D**, Rubenfeld G, Wunsch H. Variation of arterial and central venous catheter use in United States intensive care units. *Anesthesiology*. 2014 Mar;120(3);650-64. **Coauthor or Collaborator**

St-Onge M, Mandelzweig K, Marshall JC, **Scales D**, Granton J. Critical care trainees' career goals and needs: A Canadian survey. *Can Respir J*. 2014 Mar;21(2);93-5. **Coauthor or Collaborator**.

Alali AS, **Scales D**, Fowler RA, Mainprize TG, Ray JG, Kiss A, de Mestral C, Nathens AB. Tracheostomy timing in traumatic brain injury: A propensity-matched cohort study. *J Trauma Acute Care Surg*. 2014 Jan. **Coauthor or Collaborator**.

## Peer-Reviewed Fundings

- 2015 Oct - 2020 Sep **Co-Investigator.** CanROC - Canadian Resuscitation Outcomes Consortium: Toward a National Resuscitation Clinical Research Network. Canadian Institutes of Health Research. ICRH Community Development Program Grants - Resus Clin Res. PIs: Morrison LJ, Christenson JM, Stiell IG. Collaborator(s): Atkinson PR, Bhanji F, Brooks SC, Cheskes S, Dainty KN, de Caen A, Dorian P, Hutchison JS, Kirkpatrick AW, Lin S, Nascimento B, Osmond MH, Parker MJ, Ramanathan K, Rizoli SB, Scales DC, Travers AH, Vaillancourt C, Verbeek PR, Wells GA. \$1,499,760 CAD. [Grants]
- 2015 Aug - 2016 Jul **Co-Investigator.** Efficacy and safety of melatonin for prevention of delirium in critically ill patients: A multi-centre, randomized, double blind, placebo-controlled feasibility study. Centre for Collaborative Drug Research. Pilot Project Fund. PI: Fowler R. Collaborator(s): Azar A, Boon, H, Fan E, Mehta S, Rose L, Wilcox ME, Williamson D. \$50,000.00 CAD. [Grants]
- 2015 Jul - 2020 Jun **Principal Investigator.** The NEUROlogically-impaired extubation Timing Trial (NEURO-ETT). Canadian Institutes of Health Research. Operating Grant. Collaborator(s): Adhikari N, Alali A, Baker AJ, Bosma KJ, Brochard L, Chapman M, Charbonney E, Cuthbertson B, Fowler R, Griesdale D, Mainprize TG, McCredie V, Meade M, Nathens A, Rubenfeld G, Seely A, Singh J, Turgeon A, Wilcox ME, Zygun D. \$880,404.00 CAD. [Grants]
- 2015 Jul - 2020 Jun **Principal Investigator.** Paramedic Initiated Treatment of Sepsis Trial in Out-of-hospital Patients (PITSTOP). Canadian Institutes of Health Research. Operating Grant. Collaborator(s): Cheskes S, Drennan I, Mazzulli T, Morris A, Morrison L, Rubenfeld G, Seymour C, Verbeek P. \$900,554.00 CAD. [Grants]
- 2015 Jul - 2017 Jun **Co-Investigator.** Regional and temporal variations in incidence, prevalence and outcomes of critical illness among pregnant and post-partum women and newborns in Canada. Canadian Institutes of Health Research. Operating Grant. PI: Fowler R. Collaborator(s): Aoyama K, Hladunewich M, Lapinsky S, Ray J, Scales D, Seaward P, Shah P. \$46,415.00 CAD. [Grants]
- 2014 Oct - 2017 Sep **Co-Investigator.** Identifying Risk Factors for and Outcomes following Rehospitalizations for Elderly Critically Ill Patients. Canadian Institutes of Health Research. Operating Grant. PI: Wunsch, Hannah. Collaborator(s): Fowler RA, Scales DC. \$189,225.00 CAD. [Grants]
- 2014 Sep – 2017 Sept **Co-Investigator.** Assessing and improving the quality of care of patients with out-of-hospital cardiac arrest. Canadian Institutes of Health Research.. PI: Ko D. Collaborator(s): Austin P, Cheskes S, Dorian P, Morrison L, Rac V, Stukel T, Tu J, Verbeek P, Wijeyesundera H. \$443,022.00 CAD [Grants]

2014 Sept – 2016 Oct	<b>Co-Investigator.</b> Blood conservation in cardiac surgery using a novel transfusion algorithm based on point-of-care testing: a stepped-wedge cluster randomized controlled trial. Canadian Institutes of Health Research. PI: Karkouti K. Collaborator(s): Callum J, Crowther M, Grocott H, Rao V, Wijeyesundera D. \$484,584.00. [Grants]
2014 Jan – 2015 Jan	<b>Co-Investigator.</b> Identifying and Evaluating Intensive Care Unit Capacity Strain in Alberta. Alberta Innovates Health Solutions. PI: Bagshaw S. \$743,818.00 CAD. [Grants]
2013 Jul – 2014 Jul	<b>Co-Investigator.</b> Life After Death: a pilot study investigating whole-person recovery after out-of-hospital cardiac arrest Heart and Stroke Foundation of Canada (HSFC). PI: Cullen N. \$53,884.00 CAD. [Grants]
2013 Apr – 2015 Mar	<b>Co-Investigator.</b> Regional and temporal variations in incidence, prevalence and outcomes of critical illness among pregnant and post-partum women and newborns in Canada. Canadian Institutes of Health Research (CIHR). PI: Fowler R. \$41,325.00 CAD. [Grants]
2013 Mar – 2015 Mar	<b>Co-Investigator.</b> Shining a Light on End-of-Life Care in Canada: Investigating Barriers, Testing Interventions, and Disseminating Integrated Solutions for Patients, Families and Healthcare Professionals. University of Toronto. PI: Fowler R. \$187,790.00 CAD. [Grants]
2013 Mar – 2015 Mar	<b>Co-Investigator.</b> A National Comparison of Intensity of End-of-Life Care in Canada: Defining Changing Patterns, Risk Factors and Targets for Intervention. Technology Evaluation in the Elderly Network. PI: Fowler R. \$196,186.00 CAD. [Grants]
2012 Oct – 2016 Sept	<b>Co-Investigator.</b> Early Determination of long-term Prognosis in critically ill patients with Severe Traumatic Brain Injury (TBI-Prognosis multicenter prospective study). Canadian Institutes of Health Research (CIHR). PI: Turgeon A. Collaborator(s): Lauzier F, Bernard F, Lamontagne F, Burns K, Rigamonti A, McIntyre L, Pagliarello J, Meade M. \$1,053,131.00 CAD. [Grants]
2012 Jul – 2015 Jun	<b>Co-Investigator.</b> Integrating the willing bystander with emergency medical dispatch: A novel Smartphone application to recruit bystanders to provide CPR and use AEDs for victims of out-of-hospital cardiac arrestHeart and Stroke Foundation of Canada (HSFC). PI: Brooks S.\$294,481.00 CAD. [Grants]
2012 Jul – 2015 Jun	<b>Principal Investigator.</b> Translating Evidence into Practice for Patients with Anoxic Brain Injury. Physicians Services Incorporated Foundation (PSI). \$300,000.00 CAD. [Grants]

- 2012 Jun – 2015 May **Co-Investigator.** Canadian Critical Care Knowledge Translation Network. Canadian Institutes of Health Research (CIHR). PI: Muscedere J. Collaborator(s): Gibney N, Keenan SP, Lawless B, Legare M, Patrick W, Paunovic B, Shaw S, Trpkovski J, Chant C, Cook DJ, Dodek PM, Heyland DK, Lacroix J, Martin CM, Reynolds SC, Sinuff T, Turgeon AF. \$599,611.00 CAD. [Grants]
- 2011 Oct – 2015 Sept **Principal Investigator.** Initiation of Cooling by EMS to Promote the Adoption of in-hospital therapeutic hypothermia in Cardiac arrest Survivors -- ICE-PACS Randomized Controlled Trial. Canadian Institutes of Health Research (CIHR). Collaborator(s): Brooks SC, Cheskes S, Craig AM, Dainty KN, Darling S, Mamdani M, Morrison LJ, Perreira TA, Thorpe KE, Verbeek PR. \$760,947.00 CAD. [Grants]
- 2010 Feb – 2016 Feb **Co-Investigator.** From Bench to Bedside to Curbside. Clinical Research Consortium to improve Resuscitation Outcomes National Institutes of Health, Heart and Stroke Foundation of Canada, CIHR. PI: Slutsky A. Collaborator(s): Black SE, Davis D, Dorian P, Hutchison JS, Lavery J, Morrison LJ, Redelmeier DA, Rotstein OD, Sibbald W. \$3,100,000.00 CAD. [Grants]
- 2009 Dec – 2015 Nov **Co-Investigator.** Resuscitation Outcomes Consortium (ROC) Regional Clinical Center-Toronto Regional Coordinating Centre. Canadian Institutes of Health Research (CIHR). PI: Morrison L. Collaborator(s): Craig A, Baker A, Slutsky A, Nathens A, Redelmeier D, Hutchison J, Spence J, Morrison L, Feldman M, Rotstein OD, Dorian P, Verbeek R, MacDonald R, Rizoli S, Cheskes S, Brooks S. \$1,002,000.00 CAD. [Grants]
- 2009 Oct – 2015 Oct **Co-Investigator.** Toronto regional resuscitation research out of hospital network. Heart and Stroke Foundation of Canada (HSFC). PI: Morrison L. Collaborator(s): Craig A, Baker A, Slutsky A, Nathens A, Redelmeier D, Hutchison J, Spence J, Morrison L, Feldman M, Rotstein OD, Dorian P, Verbeek R, MacDonald R, Rizoli S, Cheskes S, Brooks S. \$1,500,000.00 CAD. [Grants]
- 2009 Jul – 2014 Jun **Principal Investigator.** The Impact of an Aging Population on the Delivery of Critical Care Services in Canada Canadian Institutes of Health Research (CIHR). \$300,000.00 CAD. [Grants]

## Invited Lectures and Presentation

### International

- 2015 May 19      **Abstract Facilitator.** Resuscitation: Increasing Benefit And Decreasing Harm. American Thoracic Society International Conference. Denver, Colorado, United States.
- 2015 May        **Presenter.** The RECOVER Program: One-Year Disability in Critically Ill Patients Mechanically Ventilated (MV) for 7 Days, [A5123]. American Thoracic Society 2015 International Conference.
- 2015 May        **Presenter.** The Optimal VAsopressor Titration (OVATION) Pilot Randomized Controlled Trial, [A6418]. American Thoracic Society 2015 International Conference.
- 2014 Nov 21     **Invited Speaker.** Don't make these mistakes. American Thoracic Society. Methods in Epidemiological, Clinical and Operational Research (MECOR). Turkey.
- 2014 Nov 20     **Invited Speaker.** Survival Analysis. American Thoracic Society. Methods in Epidemiological, Clinical and Operational Research (MECOR). Turkey.
- 2014 Nov 19     **Invited Speaker.** Approaches to confounding. American Thoracic Society. Turkey. Presenter(s): Scales DC. Methods in Epidemiological, Clinical and Operational Research (MECOR). Turkey.
- 2014 Nov 18     **Invited Speaker.** Journal Club - Bias and Confounding. American Thoracic Society. Turkey. Presenter(s): Scales DC. Methods in Epidemiological, Clinical and Operational Research (MECOR). Turkey.
- 2014 Nov 18     **Invited Speaker.** Sample Size and Power. American Thoracic Society. Turkey. Presenter(s): Scales DC. Methods in Epidemiological, Clinical and Operational Research (MECOR). Turkey.
- 2014 Nov 17     **Invited Speaker.** Study designs. SOPs, Registration, Reporting. American Thoracic Society. Turkey. Presenter(s): Scales DC. Methods in Epidemiological, Clinical and Operational Research (MECOR). Turkey.
- 2014 Nov 17     **Invited Speaker.** Bias, Confounding and Chance. American Thoracic Society. Turkey. Presenter(s): Scales DC. Methods in Epidemiological, Clinical and Operational Research (MECOR). Turkey.
- 2014 May 21     **Invited Speaker.** American Thoracic Society. ATS Year in Review - Quality Improvement. United States.



- 2014 Apr 15-17 **Invited Speaker.** Saudi Arabia Patient Safety Forum, King Saud bin Abdulaziz University for Health Sciences (KSAU - HS). Quality of Care be Improved Using Collaborative Networks?; Improving Quality in Multiple ICUs; When Does Quality Improvement Become Research?; Study Designs for Quality and Safety; Publishing Quality Improvement Manuscripts
- 2014 Mar 3-7 **Invited Speaker.** American Thoracic Society. MECOR program. Study designs; Bias, Confounding and Chance Methods; Sample Size and Power Methods; Approaches to confounding Methods; Diagnosis Methods; Don't make these mistakes. Bogor, Indonesia.
- 2014 Jan **Presenter.** National EMS Physicians annual meeting. Gender Differences in Access to Post-Arrest Care: A SPARC Network Cohort Study Prehospital Emergency Care Volume 2014:18(1)132. Presenters: Morrison L, Rac VE, Dorian P, Cheskes S, Fowler R, Zahn C, Dainty K, Gaudio M, Racz E, Parsons J, Kiss A, Slutsky A, Bierman A, Abramson BL, Gray S. Tucson, Arizona, United States.

### Provincial

- 2015 May 13 **Invited Speaker.** Improving post-cardiac arrest care. Alberta Health Sciences, University of Calgary, Cumming School of Medicine. Alberta, Canada. Department of Critical Care Medicine Grand Rounds. Calgary, Alberta, Canada.

### Local

- 2015 Oct 27 **Invited Speaker.** CPR Session: Post-Arrest Management: The Right Temperature. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2015 Oct 26 **Moderator.** Donation after Cardiac Death. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2015 May 26 **Invited Speaker.** Early and Prophylactic Administration of Antibiotics Debate - Pro: Early and Empiric Antibiotics Save Lives! Canadian Burn Symposium - Changing Paradigms in Burn Care. Toronto, Ontario, Canada.
- 2014 Dec 8 **Invited Speaker.** Collaborative Program in Resuscitation Sciences (CPRS). Graduate Seminar Series (Science and Sushi). Toronto, Ontario, Canada.
- 2014 Oct 30-31 **Moderator.** Critical Care Canada Forum. Taking End of Life Seriously – I; Cardiac Arrest & CPR; Plenary - New Data; The WJ Sibbald Symposium - Critical Care Systems - Supply & Demand. Toronto, Ontario, Canada.
- 2014 Oct 30 **Invited Speaker.** Critical Care Canada Forum. Enough Evidence for Normothermia? Toronto, Ontario, Canada.

- 2014 Jun 5      **Invited Speaker.** Sunnybrook Critical Challenges Conference. Proning debate. Toronto, Ontario, Canada.
- 2014 Apr 28      **Invited Speaker.** Division of Emergency Medicine, University of Toronto Resuscitation in Motion Conference (RIM) - Innovation in Resuscitation Science Research. Toronto, Ontario, Canada.
- 2014 Jan 14      **Invited Speaker.** Department of Cardiology Research Rounds, Sunnybrook Health Sciences Centre. Update on Post-Cardiac Arrest Care. Toronto, Ontario, Canada.

**Dr. Taz Sinuff (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journals**

**Sinuff T**, Dodek P, You JJ, Barwich D, Tayler C, Downar J, Hartwick M, Frank C, Stelfox HT, Heyland DK. Improving End-of-Life Communication and Decision Making: The Development of a Conceptual Framework and Quality Indicators. *J Pain Symptom Manage*. 2015 Jun;49(6):1070-80. **Principal Author.**

**Sinuff T**, Muscedere J, Rozmovits L, Dale CM, Scales DC. A qualitative study of the variable effects of audit and feedback in the ICU. *BMJ Qual Saf*. 2015 Jun;24(6):393-9. **Principal Author.**

Archambault PM, Turgeon AF, Witteman HO, Lauzier F, Moore L, Lamontagne F, Horsley T, Gagnon MP, Droit A, Weiss M, Tremblay S, Lachaine J, Le Sage N, Émond M, Berthelot S, Plaisance A, Lapointe J, Razek T, van de Belt TH, Brand K, Bérubé M, Clément J, Grajales Iii FJ, Eysenbach G, Kuziemsky C, Friedman D, Lang E, Muscedere J, Rizoli S, Roberts DJ, Scales DC, **Sinuff T**, Stelfox HT, Gagnon I, Chabot C, Grenier R, Légaré F, Canadian Critical Care Trials Group. Implementation and Evaluation of a Wiki Involving Multiple Stakeholders Including Patients in the Promotion of Best Practices in Trauma Care: The WikiTrauma Interrupted Time Series Protocol. *JMIR Res Protoc*. 2015 Feb 19;4(1):e21. **Coauthor or Collaborator.**

You JJ, Dodek P, Lamontagne F, Downar J, **Sinuff T**, Jiang X, Day AG, Heyland DK, ACCEPT Study Team and the Canadian Researchers at the End of Life Network (CARENET). What really matters in end-of-life discussions? Perspectives of patients in hospital with serious illness and their families. *CMAJ*. 2014 Dec 9;186(18):E679-87. **Coauthor or Collaborator.**

Choong K, Foster G, Fraser DD, Hutchison JS, Joffe AR, Jovet PA, Menon K, Pullenayegum E, Ward RE, Canadian Critical Care Trials Group. Acute rehabilitation practices in critically ill children: a multicenter study. *Pediatr Crit Care Med*. 2014 Jul 1;15(6):e270-9. **Coauthor or Collaborator.**

Downar J, Barua R, **Sinuff T**. The Desirability of an Intensive Care Unit (ICU) Clinician Led Bereavement Screening and Support Program for Family Members of ICU Decedents (ICU Bereave). *Journal of Critical Care*. 2014 Apr 29. **Senior Responsible Author.**

Lauzier F, Muscedere J, Deland E, Kutsogiannis DJ, Jacka M, Heels-Ansdell D, Crowther M, Cartin-Ceba R, Cox M, Zytaruk N, Foster D, **Sinuff T**, Clarke F, Thompson P, Hanna S, Cook D. For the CONECCKT-T (Co-operative Network of Critical Care Knowledge Translation for Thromboprophylaxis) Investigators and the Canadian Critical Care Trials Group. Thromboprophylaxis Patterns and Determinants in Critically Ill Patients: A Multicenter Audit. *Critical Care*. 2014 Apr 25;18(2):R82. **Coauthor or Collaborator.**

McCall M, Cahill N, Murch L, **Sinuff T**, Bray T, Tanguay T, Heyland DK. Lessons Learned From Implementing a Novel Feeding Protocol: Results of a Multicenter Evaluation of Educational Strategies. *Nutr Clin Pract*. 2014 Apr 22. **Coauthor or Collaborator.**

Cook D, Duffett M, Lauzier F, Ye C, Dodek P, Paunovic B, Fowler R, Kho ME, Foster D, Stelfox T, **Sinuff T**, Zytaruk N, Clarke F, Wood G, Cox M, Kutsiogiannis J, Jacka M, Roussos M, Kumar H, Guyatt G; For the CONECCKT-T (Co-operative Network of Critical Care Knowledge Translation for Thromboprophylaxis) Investigators and the Canadian Critical Care Trials Group. Barriers and facilitators of thromboprophylaxis for medical-surgical intensive care unit patients: A multicenter survey. *J Crit Care*. 2014 Feb 5: S0883-9441(14);00045-8. **Coauthor or Collaborator**.

Piquette D, Tarshis J, **Sinuff T**, Fowler, RA, Pinto R, LeBlanc VR. Impact of Acute Stress on Resident Performance during Simulated Resuscitation Episodes: A Prospective Randomized Cross-Over Study. *Teach Learn Med*. 2014: 26(1);9-16. **Coauthor or Collaborator**.

**Sinuff T**, Dodek P, You J, Barwich D, Tayler C, Downar J, Hartwick M, Frank C, Stelfox HT, Heyland D for the ACCEPT Study Team. Improving End of Life Communication and Decision-making: The Development of a Conceptual Framework and Quality Indicators. *BMJ supportive and palliative care*. 2014. **Principal Author**.

### Peer-Reviewed Fundings

- 2015 Jan - 2020 Jan **Principal Investigator**. The Canadian Critical Care Trials Group. Canadian Institutes of Health Research (CIHR). ICRH Community Development Prog Grants-Crit Care Clin Trials. Collaborator(s):: Hebert PC, Burns KE, Choong K, Cook D, Fowler RA, Gilfoyle E, Lamontagne F, Marshall JC, McIntyre L, Meade MO, Muscedere John, Seely A, Sinuff T, Turgeon A. \$1,500,000 CAD. [Grants]
- 2014 Oct – 2016 Sept **Principal Investigator**. Improving Critical Care Clinicians' Communication with Families about Patient Prognosis Following Anoxic Brain Injury. Physicians' Services Inc. Foundation. PI: Golan E. Collaborator(s): Dainty K, Dale C, Dorian P, Gotlib Conn L, Herridge M, Morrison L, Scales D, Singh J. \$169,689.00 CAD. [Grants]
- 2014 Mar – 2016 Mar **Co-Investigator**. Improving DECIision-making about goals of care for hospitalized, eIDerly patiEnts: a "multi-incubator unit" Study (iDECIDE Study). Tech Value Net (TVN). PI: You J. Collaborator(s): Heyland D, Simon J, Jayaraman D, Sargious P, Green L, Frolic A, Day A, Straus S, Sudore R, Fowler R, Dodek P, Jff Myers J. \$593,746.00 CAD. [Grants]
- 2014 Mar – 2015 Mar **Co-Investigator**. Developing a Bereavement Screening and Support Program for ICU Family Members at Risk of Complicated GriefMSH UHN Innovation Fund (AHS-AFP grant). PI: Downar J. Collaborator(s): Hales S, Siber K, Strachan D, Mackinnon C. \$99,926.00 CAD. [Grants]

- 2013 Oct – 2014 Oct **Co-Investigator.** Development and Planning of a Theory-based Implementation of a National Wiki-based Reminder System Promoting Best Practices in Trauma Care. Canadian Institutes of Health Research (CIHR). PI: Archambault P. Collaborator(s): Belt T, Eysenbach G, Gagnon M, Lang E, Lauzier F, Legare F, Moore L, Rizoli S, Sinuff T, Stelfox H, Turgeon A, Witteman H. \$24,956.00 CAD. [Grants]
- 2013 Oct – 2014 Oct **Co-Investigator.** Improving Decision-making about Goals of Care for Hospitalized, Elderly Patients: A Multicentre, Interventional Study. Canadian Institutes of Health Research (CIHR). PI: Heyland DK, You J. Collaborator(s): Barwich D, Day A, Fowler R, Sargious P, Sawatzky R, Simon J, Stajduhar K. \$24,998.00 CAD. [Grants]
- 2012 Oct – 2015 Sept **Co-Investigator.** Canadian Critical Care Knowledge Translation Network. Canadian Institutes of Health Research. PI: Muscedere J. Collaborator(s): Gibney N, Keenan SP, Lawless B, Legare M, Patrick W, Paunovic B, Shaw S, Trpkovski J, Chant C, Cook DJ, Dodek PM, Heyland DK, Lacroix J, Martin CM, Reynolds SC, Scales DC, , Turgeon AF. \$599,611.00 CAD. [Grants]
- 2011 Dec – 2017 Dec **Co-Investigator.** Technology Evaluation in the Elderly Network (TECH VALUE NET). Networks of Centres of Excellence (NCE). PI: Heyland D. \$23,888,157.00 CAD. [Grants]
- 2011 Apr – 2014 Apr **Co-Investigator.** Advance Care Planning Evaluation in Hospitalized Elderly Patients: A multicenter, prospective study: The ACCEPT Study Canadian Institutes of Health Research (CIHR). PIs: Barwich D, Heyland D, Ketih D. \$333,418.00 CAD. [Grants]
- 2009 Mar – present **Co-Investigator.** Towards RECOVER - Evaluation of Clinical Outcomes, Patient and Caregiver Needs and the Biology of Muscle and Nerve Injury in Critically Ill Survivors of Prolonged Mechanical Ventilation. Canadian Institutes of Health Research (CIHR). PI: Herridge M. Collaborator(s): Cameron J, Abbey S, Adhikari N, Batt J, Cook D, Dos Santos C, Ferguson N, Flannery J, Fowler R, Friedrich J, Leung G, Marshall J, Meggison H, Moody A, Mehta S, Rudkowski J, Rubenfeld G, Scales D, Slutsky A. \$1,256,750.00 CAD. [Grants]

**Dr. Terry Smith (Sunnybrook Hospital)**

**Peer-Reviewed Fundings**

- 2013 – present      **Primary Investigator.** Retrospective burden of illness analysis of massively transfused trauma patients. Novo Nordisk Canada. Manuscript in preparation. \$20,000.00 CAD. [Grants]
- 2013 – present      **Co-Investigator.** Pharmacoeconomic analysis of burden of illness of massively transfused trauma patients. Manuscript in preparation. \$40,000.00 CAD. [Grants]

**Dr. Lorraine Tremblay (Sunnybrook Hospital)**

**Peer-Reviewed Funding**

- 2014 Apr – present **Co-Investigator.** The impact of an institutional multidisciplinary tracheostomy team on patient care and clinical outcomes: An observational before and after cohort study. Sunnybrook General Surgery AEF Grant. PIs: Chu P, Chapman M. Collaborator(s): Tien H. \$9,750.00 CAD. [Grants]
- 2012 May – present **Co-Investigator.** The impact of an institutional multidisciplinary tracheostomy team on patient care and clinical outcomes: An observational before and after cohort study. Sunnybrook AFP Association. PIs: Chu P, Chapman M. Collaborator(s): Tien H. \$10,000.00 CAD. [Grants]
- 2011 Jul – present **Principal Investigator.** Implementation and assessment of a novel multidisciplinary e-discharge summary to improve efficiency, satisfaction and safety of transfer of care for complex patients. Sunnybrook AFP Association. Collaborator(s): Etchells E, Chan K, Farquharson L. \$71,342.00 CAD. [Grants]

**Dr. Hannah Wunsch (Sunnybrook Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Sjoding MW, Valley TS, Prescott HC, **Wunsch H**, Iwashyna TJ, Cooke CR. Rising Billing for Intermediate Care Among Hospitalized Medicare Beneficiaries Between 1996 and 2010, Am J Resp Crit Care Med 2015; Epub date: 2015 Sept 16. **Coauthor or Collaborator**

Sjoding MW, Prescott HC, **Wunsch H**, Iwashyna TJ, Cooke CR, Hospitals with High Intensive Care Utilization Provide Lower Quality Pneumonia Care Critical Care Medicine 2015 Mar 10. [Epub ahead of print]. **Coauthor or Collaborator.**

Hua M, Gong MN, Brady J, **Wunsch H**. Early and late unplanned rehospitalizations for survivors of critical illness. Crit Care Med. 2015 Feb;43(2):430-8. **Senior Responsible Author.**

**Wunsch H**, Harrison D, Jones A, Rowan KR, The impact of the organization of high dependency care on acute hospital mortality and patient flow for critically ill patients, Am J Respir Crit Care Med. 2015 Jan 15;191(2):186-93. **Principal Author.**

Moitra VK, Guerra C, Linde-Zwirble WT, **Wunsch H**. Relationship Between ICU Length of Stay and Long-term Mortality for Elderly ICU Survivors, Critical Care Medicine. 2015. **Senior Responsible Author.**

Kramer AA, Gershengorn, HB, **Wunsch H**, Zimmerman J. Variations in case-mix adjusted duration of mechanical ventilation among intensive care units, Critical Care Medicine. 2015. **Coauthor or Collaborator.**

Jing Wang G, Belley-Cote E, Burry L, Duffett M, Karachi T, Perri D, Alhazzani W, D'Aragon F, **Wunsch H**, Rochweg B. Clonidine for sedation in the critically ill: a systematic review and meta-analysis (protocol), Syst Rev 2015; 4(1):154. **Coauthor or Collaborator.**

Prin M, Harrison D, Rowan K, **Wunsch H**. Epidemiology of admissions to 11 stand-alone high-dependency care units in the UK, Intensive Care Medicine 2015; 41(11): 1903-10. **Senior Responsible Author.**

Guerra C, Hua M, **Wunsch H**. Risk of a Diagnosis of Dementia for Elderly Medicare Beneficiaries after Intensive Care, Anesthesiology 2015; 123(5): 1105-12. **Senior Responsible Author.**

Hope AA, Gong MN, Guerra C, **Wunsch H**. Frailty Before Critical Illness and Mortality for Elderly Medicare Beneficiaries, Journal of the American Geriatrics Society 2015; 63(6): 1121-1128. **Senior Responsible Author.**

Gershengorn HB, Keene A, Dzierba AL, **Wunsch H**. The Association of Antibiotic Treatment Regimen and Hospital Mortality in Patients Hospitalized with Legionella Pneumonia, Clinical Infectious Diseases 2015; 60 (11): e66-e79. **Senior Responsible Author.**



Creutzfeldt C, **Wunsch H**, Curtis JR, Hua M. Prevalence and Outcomes of Patients meeting Palliative Care Triggers in Neurological Intensive Care Units, Neurocritical Care. 2015. **Coauthor or Collaborator.**

Moitra V, Patel MK, Darrah D, **Wunsch H**. Low Dose Ketamine in Chronic Critical Illness. Journal of Critical Care. 2015. **Senior Responsible Author.**

Prin M, **Wunsch H**. The role of stepdown beds in hospital care. Am J Respir Crit Care Med. 2014 Dec 1. 190(11):1210-6. **Senior Responsible Author.**

Admon AJ, Seymour CW, Gershengorn HB, **Wunsch H**, Cooke CR. Hospital-level variation in intensive care unit admission and critical care procedures for patients hospitalized for pulmonary embolism. 2014 Dec. Chest. 146(6):1452-61. **Coauthor or Collaborator.**

Elliott D, Davidson JE, Harvey MA, Bemis-Dougherty A, Hopkins RO, Iwashyna TJ, Wagner J, Weinert C, **Wunsch H**, Bienvenu OJ, Black G, Brady S, Brodsky MB, Deutschman C, Doepp D, Flatley C, Fosnight S, Gittler M, Gomez BT, Hyzy R, Louis D, Mandel R, Maxwell C, Muldoon SR, Perme CS, Reilly C, Robinson MR, Rubin E, Schmidt DM, Schuller J, Scruth E, Siegal E, Spill GR, Sprenger S, Straumanis JP, Sutton P, Swoboda SM, Twaddle ML, Needham DM. Exploring the scope of post-intensive care syndrome therapy and care: engagement of non-critical care providers and survivors in a second stakeholders meeting. Crit Care Med. 2014 Dec. 42(12):2518-26. **Coauthor or Collaborator.**

Gershengorn HB, **Wunsch H**, Scales DC, Zarychanski R, Rubenfeld G, Garland A. Association between arterial catheter use and hospital mortality in intensive care units. JAMA Intern Med. 2014 Nov 1. 174(11):1746-54. **Coauthor or Collaborator.**

Halpern SD, Becker D, Curtis JR, Fowler R, Hyzy R, Kaplan LJ, Rawat N, Sessler CN, **Wunsch H**, Kahn JM, Choosing Wisely Taskforce, American Thoracic Society, American Association of Critical-Care Nurses, Society of Critical Care Medicine. An official American Thoracic Society/American Association of Critical-Care Nurses/American College of Chest Physicians/Society of Critical Care Medicine policy statement: the Choosing Wisely® Top 5 list in Critical Care Medicine. Am J Respir Crit Care Med. 2014 Oct 1. 190(7):818-26. **Coauthor or Collaborator.**

Khan S, Guerra C, Khandji A, Bauer RM, Claassen J, **Wunsch H**. Frequency of acute changes found on head computed tomographies in critically ill patients: A retrospective cohort study. J Crit Care. 2014 Oct. 29(5) 884.e7-12. **Senior Responsible Author.**

Baldwin MR, Reid C, Westlake AA, Rowe JW, Granieri EC, **Wunsch H**, Dam T, Rabinowitz D, Goldstein NE, Maurer MS, Lederer DJ. The feasibility of measuring frailty to predict disability and mortality in older medical intensive care unit survivors. J Crit Care. 2014 Jun. 29(3):401-8. **Coauthor or Collaborator.**

Li G, Brady JE, Lang BH, Giglio J, **Wunsch H**, DiMaggio C. Prescription Drug Monitoring and Drug Overdose Mortality. Injury Epidemiology. 2014 Apr 24. 1(1):9. **Coauthor or Collaborator.**

Lyon SM, **Wunsch H**, Asch DA, Carr BG, Kahn JM, Cooke CR. Use of intensive care services and associated hospital mortality after Massachusetts healthcare reform. Crit Care Med. 2014 Apr. 42(4):763-70. **Coauthor or Collaborator.**

**Wunsch H**, Christiansen C, Johansen MB, Olsen M, Ali N, Angus DC, Sorensen HT. Psychiatric Diagnoses and Psychoactive Medication Use among Nonsurgical Critically Ill Patients Receiving Mechanical Ventilation. *JAMA*. 2014 Mar 19. 311(11):1133-1142. **Principal Author.**

Gershengorn HB, Garland A, Scales D, Rubinfeld G, Kramer A, **Wunsch H**. Variation of Arterial and Central Venous Catheter Use in United States Intensive Care Units. *Anesthesiology*. 2014 Mar. 120 (3): 650-64. **Senior Responsible Author.**

Gershengorn HB, Kahn JM, **Wunsch H**. Temporal trends in the use of parenteral nutrition in critically ill patients. *Chest*. 2014 Mar 1. 145(3):508-17. **Senior Responsible Author.**

Brady JE, **Wunsch H**, Dimaggio C, Lang BH, Giglio J, Li G. Prescription Drug Monitoring and Dispensing of Prescription Opioids. *Public Health Reports*. 2014 Mar. 129(2): 139-147. **Coauthor or Collaborator.**

Austin S, Murthy S, **Wunsch H**, Adhikari NK, Karir V, Rowan K, Jacob ST, Salluh J, Bozza FA, Du B, An Y, Lee B, Wu F, Nguyen YL, Oppong C, Venkataraman R, Velayutham V, Dueñas C, Angus DC, International Forum of Acute Care Trialists. Access to urban acute care services in high- vs. middle-income countries: an analysis of seven cities. *Intensive Care Med*. 2014 Mar. 40(3):342-52. **Coauthor or Collaborator.**

Hua MS, Li G, Blinderman CD, **Wunsch H**. Estimates of the need for palliative care consultation across united states intensive care units using a trigger-based model. *Am J Respir Crit Care Med*. 2014 Feb 15. 189(4):428-36. **Senior Responsible Author.**

Kurtz P, Wahl AS, Bauer RM, Hirsch LJ, **Wunsch H**, Claassen J. Continuous Electroencephalography in a Surgical Intensive Care Unit. *Intensive Care Med*. 2014 Feb. 40(2):228-234. **Coauthor or Collaborator.**

### **Editorials, Letters, and Review Chapters**

Wilcox ME, **Wunsch H**. Identifying and targeting intensive care unit survivors at risk for excess morbidity and premature death. *Ann Am Thorac Soc*. 2015 Feb;12(2):243-4. **Senior Responsible Author.**

Hua M, **Wunsch H**. The complexities of ICU discharge. *Chest*. 2015 Feb;147(2):281-2.  
de Lange DW, Wunsch H, Kesecioglu J. Comparing intensive care units by size or level. *Intensive Care Med*. 2015 Feb;41(2):357-9. **Senior Responsible Author.**

Prin M, **Wunsch H**. The Role of Stepdown Beds in Hospital Care, *American Journal of Respiratory & Critical Care Medicine* 2014; 20(6):673-80. **Senior Responsible Author.**

**Wunsch H**. Untangling the Healthcare Use Patterns of Severe Sepsis Survivors [Editorial], *American Journal of Respiratory and Critical Care Medicine*, 2014; 190(1):7-8. **Principal Author.**

## Peer-Reviewed Fundings

- 2015 – 2020 **Mentor.** NIH/NIA. K08 [Beeson Award]. Determinants of Critical Care Intensity for Hospitalized Older Adults: the Effect of Hospital-based Palliative Care Services. \$862,510.00 CAD. [Grants]
- 2015 – 2017 **Co-Investigator.** Changes in Work and Earnings After Heart Attack, Stroke and Cardiac Arrest Heart & Stroke. \$245,000.00 CAD. [Operating Grants]
- 2014 – 2017 **Principal Investigator.** Identifying Risk Factors for and Outcomes following Rehospitalizations for Elderly Critically Ill Patients. CIHR. \$189,225.00 CAD. [Operating Grants]
- 2014 Oct – 2014 Jul **Principal Investigator.** Identifying Risk Factors for and Outcomes following Rehospitalizations for Elderly Critically Ill Patients. **Canadian** Institutes of Health Research (CIHR). Collaborator(s): Scales D, Fowler R. \$189,225.00 CAD. [Grants]
- 2013 Mar – 2015 Mar **Collaborator.** Shining a Light on End-of-Life Care in Canada: Investigating Barriers, Testing Interventions, and Disseminating Integrated Solutions for Patients, Families and Healthcare Professionals. University of Toronto. Dept of Medicine - Integrating Challenge Grant. PI: Fowler R. \$187,790.00 CAD. [Grants]
- 2011 – 2014 **Principal Investigator.** Treatment Intensity and Outcomes for Critically Ill Patients. Columbia University, Irving Scholars Program, New York, USA. \$180,000.00 USD. [Grants]
- 2010 Sept – 2015 May **Principal Investigator.** Use of intensive care for elderly patients undergoing high-risk surgical procedures. National Institutes of Health (NIH) / National Institute on Aging (NIA). \$628,425.00 USD. [Grants]

## Invited Lectures and Presentation

### International

- 2015 Oct **Invited Speaker.** Delirium: which medications to avoid; Big Data. European Society of Intensive Care Medicine, Berlin, Germany
- 2015 Oct **Invited Speaker.** Post-Intensive Care Syndrome. Post-graduate course, European Society of Intensive Care Medicine, Berlin, Germany
- 2015 Oct **Invited Speaker.** Randomization Strategies and Alternatives. Post-graduate course, European Society of Intensive Care Medicine, Berlin, Germany

- 2015 Sept **Invited Speaker.** The role of Stepdown Beds in Hospital Care Management Seminar at the Joint Annual Meeting 2015 of the Swiss Society of Intensive Care Medicine SSICM, Swiss Society for Infectious Diseases SSI, Swiss Society for Emergency Medicine SGNOR/SSMUS and the Swiss Society for Hospital Hygiene SSHH, Interlaken, Switzerland
- 2015 Jun **Invited Speaker.** Triaging Patients for the ICU. Grand Rounds, Department of Anesthesiology, UCSF, San Francisco, California
- 2015 Jun **Invited Speaker.** Assessing Long-term Outcomes after Critical Illness Research Seminar, Department of Anesthesiology, UCSF, San Francisco, California
- 2015 May **Invited Speaker.** Avoiding Post-Intensive Care Syndrome American Thoracic Society, Annual Meeting Symposium, Denver, Colorado
- 2015 Mar **Invited Speaker.** Triaging High-Risk Surgical Patients; Pros and Cons of Separate Stepdown Beds; Who needs palliative care in the ICU?; Detecting variation in care; Psychiatric Disease after Critical Illness; Barriers to De-adoption of what we like. International Society of Intensive Care & Emergency Medicine, Annual Meeting, Brussels, Belgium
- 2015 Jan **Invited Speaker.** ICU Occupancy Rates and Beds per 100,000: Are These Relevant Parameters? Society of Critical Care Medicine, Annual Meeting, Phoenix, Arizona
- 2014 Sep 29 **Invited Speaker.** Guidelines on Analgesia, Sedation and Delirium Monitoring; Incidence and Pathophysiology of acute and chronic Cognitive Dysfunction. European Society of Intensive Care Medicine. Barcelona, Spain.
- 2014 Sep 4 **Invited Speaker.** Triaging Patients for the ICU. Grand Rounds, Department of Anesthesiology, Massachusetts General Hospital, Harvard Medical School. Boston, Massachusetts, United States.
- 2014 Jun 5 **Invited Speaker.** Critical Illness in the Continuum of Disease and Disability. Grand Rounds, Critical Care Medicine, Columbia University. New York, United States.
- 2014 May **Invited Speaker.** Psychiatric Diagnoses and Psychoactive Medication Use Among Nonsurgical Critically Ill Patients Receiving Mechanical Ventilation [NEJM and JAMA joint session]. American Thoracic Society. San Diego, California, United States.
- 2014 Mar 12-13 **Invited Speaker.** Are World Studies the Way Forward?; What is the Right Dose of ICU?. ANZICs – New Zealand Regional Meeting. Christchurch, New Zealand.

2014 Jan 10 **Invited Speaker.** Critical Care Top Five Taskforce for Choosing Wisely – Presentation of Selected Recommendations. Society of Critical Care Medicine. San Francisco, California, United States.

### **Provincial**

2015 Oct **Invited Speaker.** Use of Quality Metrics to Enhance ICU Care. Chest, Montreal, Quebec, Canada

### **Local**

2015 Oct **Invited Speaker.** ICU Strain: Using Intermediate Care Beds  
Critical Care Canada Forum, Toronto, ON, Canada

2015 Oct **Invited Speaker.** Use of Intensive Care After Surgery – International Comparisons Anesthesia Professor's Rounds for Fellows, Department of Anesthesia, University of Toronto

2014 Oct 30-31 **Invited Speaker.** Misled...by occupancy data; Sepsis: why all the variation in outcomes?; When to think about palliation. Critical Care Canada Forum. Toronto, Ontario, Canada.

### **Honours and Awards**

2014 Presidential Citation. Society of Critical Care Medicine. Dinstinction.

**Dr. Michael Detsy (Mount Sinai Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Marhong JD, Munshi L, **Detsky ME**, Telesnicki T, Fan E. Mechanical ventilation during extracorporeal life support (ECLS): A systematic review. *Intensive Care Medicine*. 2015 Mar 10. **Coauthor or Collaborator.**

Goligher EC, Laghi F, **Detsky ME**, Farias P, Murray A, Brace D, Brochard LJ, Sebastien-Bolz S, Rubenfeld GD, Kavanagh BP, Ferguson ND. Measuring diaphragm thickness with ultrasound in mechanically ventilated patients: feasibility, reproducibility and validity. *Intensive Care Med*. 2015 Feb 19. **Coauthor or Collaborator.**

**Detsky ME**, Ailon J, Weinerman AS, Amaral AC, Bell CM. A two-site survey of clinicians to identify practices and preferences of intensive care unit transfers to general medical wards. *J Crit Care*. 2015 Apr;30(2):358-62. **Principal Author.**

Marhong JD, Telesnicki T, Munshi L, Del Sorbo L, **Detsky ME**, Fan E. Mechanical Ventilation during Extracorporeal Membrane Oxygenation. An International Survey. *Ann Am Thorac Soc*. 2014 Jul;11(6):956-61. **Coauthor or Collaborator.**

**Abstracts**

**Detsky ME**, Bayard DF, Delman AM, Kent SA, Buehler AE, Ciuffetelli IV, Cooney E, Gabler NB, Halpern SD. ICU Physician and Nurse Predictions of Patient Morbidity and Mortality 6 Months Later: A Multicenter Study. American Thoracic Society, Denver CO, May 2015. **Principal Author.**

**Dr. James Downar (University Health Network – Toronto General Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

**Downar J**, Warner M, Sibbald R. Do we really need more nonbeneficial CPR at the end of life? Canadian Medical Association Journal. 2015 Nov 2. **Principal Author.**

**Downar J**, Delaney JW, Hawryluck L, Kenny L. Canadian Critical Care Society Guidelines for the Withdrawal of Life Sustaining Measures. 2015 Aug. **Principal Author.**

Delaney JW, **Downar J**. How is Life Support Withdrawn in Intensive Care Units: A Narrative Review. 2015 Aug. (Trainee Publication). **Senior Responsible Author.**

Myers J, Krueger P, Webster F, **Downar J**, Herx L, Jeney C, Oneschuk D, Schroder C, Sirianni G, Seccareccia D, Tucker T, Taniguchi A. Development and Validation of a Set of Palliative Medicine Entrustable Professional Activities: Findings from a Mixed Methods Study. J Palliat Med. 2015 Aug 1;18(8):682-90. **Coauthor or Collaborator.**

Cape D, Fox-Robichaud A, Turgeon A, Seely A, Hall R, Burns K, Singal RK, Dodek P, Bagshaw S, Sibbald R, **Downar J**. The impact of the Rasouli decision: a Survey of Canadian intensivists. Journal of Medical Ethics. 2015 Aug 1. (Trainee Publication). **Senior Responsible Author.**

Goligher E, Ely EW, Bakker J, Raphael J, Volandes AE, Patel BM, **Downar J**. Physician-Assisted Suicide and Euthanasia in the Intensive Care Unit: Dialogue on Core Ethical Issues. 2015 Jul. **Senior Responsible Author.**

Shiotsuka J, Steel A, **Downar J**. The sedative effect of propranolol on critically ill patients: A Case Series. 2015 Jun. **Senior Responsible Author.**

**Downar J**. Is physician-assisted death in anyone's best interest? Yes. Can Fam Physician. 2015 Apr 1;61(4):314-6, 320-2. **Principal Author.**

You JJ, **Downar J**, Fowler RA, Lamontagne F, Ma IW, Jayaraman D, Kryworuchko J, Strachan PH, Ilan R, Nijjar AP, Neary J, Shik J, Brazil K, Patel A, Wiebe K, Albert M, Palepu A, Nouvet E, des Ordon AR, Sharma N, Abdul-Razzak A, Jiang X, Day A, Heyland DK, for the Canadian Researchers at the End of Life Network (CARENET). Barriers to Goals of Care Discussions With Seriously Ill Hospitalized Patients and Their Families: A Multicenter Survey of Clinicians. JAMA Intern Med. 2015 Feb 2. **Coauthor or Collaborator.**

Colman R, Singer LG, Barua R, **Downar J**. Outcomes of lung transplant candidates referred for co-management by palliative care: A retrospective case series. Palliat Med. 2015 Jan 29. **Senior Responsible Author.**

Sinuff T, Dodek P, You JJ, Barwich D, Tayler C, **Downar J**, Hartwick M, Frank C, Stelfox HT, Heyland DK. Improving End-of-Life Communication and Decision-Making: The Development of a Conceptual Framework and Quality Indicators. J Pain Symptom Manage. 2015 Jan 23. **Coauthor or Collaborator.**

**Downar J**, You JJ, Bagshaw SM, Golan E, Lamontagne F, Burns K, Sridhar SK, Seely A, Meade MO, Fox-Robichaud A, Cook D, Turgeon AF, Dodek P, Xiong W, Fowler R, on behalf of the Canadian Critical Care Trials Group. Nonbeneficial Treatment Canada: Definitions, Causes, and Potential Solutions From the Perspective of Healthcare Practitioners. *Crit Care Med*. 2014 Nov 5. **Principal Author**.

You JJ, Dodek P, Lamontagne F, **Downar J**, Sinuff T, Jiang X, Day AG, Heyland DK, for the ACCEPT Study Team and the Canadian Researchers at the End of Life Network (CARENET). What really matters in end-of-life discussions? Perspectives of patients in hospital with serious illness and their families. *CMAJ*. 2014 Nov 3. **Coauthor or Collaborator**.

Chambaere K, Bernheim JL, **Downar J**, Deliens L. What's in a name? Belgian "life-ending acts without explicit request" from a large-scale death certificate survey revisited. *CMAJ*. 2014 Nov. **Coauthor or Collaborator**.

Colman R, Singer LG, Barua R, **Downar J**. Characteristics, Interventions, and Outcomes of Lung Transplant Recipients Co-Managed with Palliative Care. *J Palliat Med*. 2014 Aug 27. **Senior Responsible Author**.

Al-Awamer A, **Downar J**. Developing a palliative care service model for Muslim Middle Eastern countries. *Support Care Cancer*. 2014 Jul 17. **Senior Responsible Author**.

**Downar J**, Sibbald RW, Bailey TM, Kavanagh BP. Withholding and withdrawing treatment in Canada: implications of the Supreme Court of Canada's decision in the Rasouli case. *CMAJ*. 2014 Jun 23. **Principal Author**.

**Downar J**, Bailey T, Kagan J, Librach SL. Physician-Assisted Death: Time to move beyond "Yes" or "No". *Canadian Medical Association Journal*. 2014 Apr 7. **Principal Author**.

**Downar J**, Barua R, Sinuff T. The desirability of an Intensive Care Unit (ICU) Clinician-Led Bereavement Screening and Support Program for Family Members of ICU Decedents (ICU Bereave). *J Crit Care*. 2014 Feb;29(2):311.e9-311.e16. **Principal Author**.

### **Book Chapters**

**Downar J**, Bernstein M. End-of-Life Care. *Neurosurgical Ethics in Practice: Value-Based Medicine* 2014; 89-100. **Principal Author**.

### **Clinical Care Guidelines**

Canadian Critical Care Society, Canadian Association of Emergency Physicians, Association of Medical Microbiology and Infectious Diseases Canada. Ebola Clinical Care Guidelines. 2014 Aug 29. **Coauthor or Collaborator**.

### **Editorials**

**Downar J**. Pro/Con: Is Physician-Assisted Death in Anyone's Best Interests? *Canadian Family Physician*. 2014 Sept 14. **Principal Author**.



## Peer-Reviewed Fundings

- 2015 Apr - 2016 Mar **Principal Investigator.** A pilot study of a MEdication RAtionalization (MERA) Intervention. National Centre for Excellence, TechValueNet. Collaborator(s): Whitty R, Delicaet K, Wu R, Bogoch I, Weiss A, Kaya E, Reynolds S, Wong G, Wentlandt K, Porter S, Battu K, Wu P. \$128,600.00 CAD [Grants]
- 2014 Jul - 2015 Jun **Co-Investigator.** Heart and Stroke Foundation of Ontario (The) (HSFO), Bridge Funding Program. PIs: You J, Ross H. Collaborator(s): Demers C, MacIver J. \$70,000.00 CAD. [Grants]
- 2014 Jul – 2015 Jun **Principal Investigator.** INSPIRED Approaches to COPD: Improving Care and Creating Value. Canadian Foundation for Healthcare Improvement. Collaborator(s): Chapman K, Sabo K, Casey D, Manji M, Abrams H, Algu K. \$50,000.00 CAD. [Grants]
- 2014 Jul – 2015 Jun **Principal Investigator.** DECIsion-making about goals of care for hospitalized medical patiEnts 2: a COMMUNICAtion intErvention - Patient Data Collection and Feedback Pilot National Centres of Excellence. Collaborator(s): Macdonald J, Hartwick M, Roze des Ordons A, Myers J, Pereira J, Simon J, Hamstra S. \$79,675.00 CAD. [Grants]
- 2014 Jul – 2015 Jun **Co-Investigator.** Therapeutic alliance in the intensive care unit: enhanced information to facilitate decision-making. Ontario Ministry of Health and Long-Term Care. PI: Amaral A. Collaborator(s): Conn L, Piquette D, Dev S. \$99,860.00 CAD. [Grants]
- 2013 Arp – 2014 Mar **Principal Investigator.** Developing A Bereavement Screening and Support Program for ICU Family Members at Risk of Complicated Grief. Ontario Ministry of Health and Long-Term Care. Collaborator(s): Sinuff T, Strachan D, MacKinnon C, Siber K, Hales S. \$99,926.00 CAD. [Grants]
- 2012 Jul – 2014 Jun **Principal Investigator.** Are standardized patient simulation sessions more effective than didactic teaching alone for improving the skill and comfort level of medical residents when discussing goals of care and resuscitation? Royal College of Physicians and Surgeons of Canada. Collaborator(s): Knickle K, McNaughton N, McDonald-Blumer H. \$22,642.50 CAD. [Grants]

2013 Jul – 2015 June **Co-Investigator.** Shining a Light on End-of-Life Care in Canada: Investigating Barriers, Testing Interventions, and Disseminating Integrated Solutions for Patients, Families and Healthcare Professionals. University of Toronto. PI: Fowler R. Collaborator(s): Dev S, Berry S, Downar J, Gandhi S, La Delfa I, Laupacis A, Myers J, Ross H, Rubinfeld G, Scales D, Sinha S, Stukel T, Zimmermann C, Gallagher R, Heyland D, Kryworuchko J, Skinner J, You J, Wunsch H. \$187,790.00 CAD. [Grants]

## Invited Lectures and Presentation

### International

- 2015 Sep 19 **Invited Speaker.** Cardiac Palliation. Electrophysiology Cornerstone Workshop, Minneapolis, Minnesota, United States.
- 2014 Oct 26 **Invited Speaker.** CHEST 2014- American College of Chest Physicians. End-of-life care in the ICU: can we increase quality and reduce costs with a patient and family centered approach? Austin, Texas, United States.
- 2014 Sept 5 **Invited Speaker.** Adult Congenital Heart Association Annual Meeting 2014. How do we involve Palliative Care Services in the management of our patient? The role of PC in Congenital Heart Disease. Chicago, Illinois, United States.
- 2014 May 21 **Invited Speaker.** American Thoracic Society Meeting 2014. Should rapid response teams be involved in changing resuscitation orders? San Diego, California, United States.

### Provincial

- 2015 Oct 23 **Presenter.** Standardized patient simulation more effective than didactic teaching for improving residents' communication skills when discussing goals of care and resuscitation: A randomized controlled trial. International Conference on Residency Education, Vancouver, British Columbia, Canada.
- 2015 Oct 6 **Presenter.** Non-Cancer Illness Webinar Series: End-stage Lung Disease. Canadian Hospice and Palliative Care Association, Canada. Presenter(s): J. Downar, R. Colman.
- 2015 Oct 2 **Keynote Speaker.** Preparing for the Future: Physician-Assisted Death. Canadian Psychiatric Association Annual Meeting, Vancouver, British Columbia, Canada. Presenter(s): Downar J, Smith D, Marshall D.
- 2015 Aug 26 **Invited Speaker.** End-of-life care: Medicolegal Issues. Canadian Medical Protective Agency, Halifax, Nova Scotia, Canada.

- 2015 Jun 2           **Presenter.** Palliative Care in the ICU. Critical Care Network (Interior British Columbia), British Columbia, Canada. Webinar covering aspects of Palliative Care provision in the ICU.
- 2015 Feb 26           **Invited Speaker.** Physician-Assisted Death in Canada. Canadian Critical Care Conference 2015, Whistler, British Columbia, Canada.
- 2015 Feb 26           **Invited Speaker.** Palliative Care in the ICU. Canadian Critical Care Conference 2015, Whistler, British Columbia, Canada.
- 2015 Feb 10           **Invited Speaker.** What can Palliative Care do for you? Canadian Foundation for Healthcare Improvement- INSPIRED National Conference, Vancouver, British Columbia, Canada.
- 2015 Jan 30           **Invited Speaker.** Palliative and End-of-Life Care in Cardiac Patients. Arrhythmia Update Plus, Whistler, British Columbia, Canada.
- 2015 Jan 23           **Presenter.** Realistic 80 Communication Intervention. Improving Compassion in Critical Care (ICCARE) Group, Calgary, Alberta, Canada.
- 2015 Jan 23           **Presenter.** ICU BEREAVE- Designing a bereavement screening and support service. Improving Compassion in Critical Care (ICCARE) Group, Calgary, Alberta, Canada.
- 2014 Oct 22           **Speaker.** British Columbia's Knowledge Network. Assisted Suicide in Practice – What Canadians Could Expect. British Columbia, Canada.
- 2014 Oct 19           **Speaker.** Canadian Broadcasting Corporation. Physician Assisted Death in Canada.
- 2014 Oct 15           **Speaker.** Societe Radio-Canada. Aide Medicale a Mourir au Canada Interviewed for news item on Supreme Court Hearing in Carter vs. Canada.
- 2014 Oct 9            **Speaker.** La Presse. Les Canadiens Appuient L'Aide Medicale a Mourir.
- 2014 Oct 8            **Speaker.** Societe Radio-Canada. Assisted Death in Canada. Sudbury, Ontario, Canada.
- 2014 Sept 25           **Speaker.** Canadian Broadcasting Corporation Radio. Family Presence during Resuscitation and Patient-Centred Care.
- 2014 Aug 20           **Speaker.** Global Television. Assisted Death in Canada. Vancouver, British Columbia, Canada.
- 2014 Aug 7            **Speaker.** Postmedia News. "Family presence during hospital resuscitation a growing trend in Canada" Describing policies to allow families to witness cardiopulmonary resuscitation, and potential concerns about them.
- 2014 Aug 7            **Speaker.** "Physician-assisted death and euthanasia in Canada: should it be legal or banned?" Review of current laws and cases relevant to Assisted Death in Canada.

- 2014 Jun 12 **Invited Speaker.** Health PEI- 4th Annual Prince Edward Island Palliative Care Conference. Nonbeneficial Care in Canada after the Rasouli Decision. Summerside, Prince Edward Island, Canada.
- 2014 Jun 11 **Speaker.** The Canadian Press. National dialogue on end-of-life issues, palliative-care plan needed: doctors.
- 2014 Jun 11 **Speaker.** Postmedia. Canadians divided over legalization of euthanasia, doctors' group finds.
- 2014 Jun 10 **Invited Speaker.** Hon. Stephen Fletcher, MP. Presentation to Members of Parliament: The Case for Medically Assisted Death in Canada (Bill C581). Ottawa ,Ontario, Canada.
- 2014 Jun 10 **Speaker.** Canadian Broadcasting Corporation Radio. Physician-assisted death divides Canadians, medical panel hears.
- 2014 Jun 7 **Presenter.** Canadian Hospice and Palliative Care Association. Symptom Management for Patient with End-Stage Heart and Lung Disease. Banff, Alberta, Canada.
- 2014 Apr 30 **Presenter.** Canadian Hospice and Palliative Care Association. Non-Cancer Illness Webinar Series: End-stage Lung Disease.
- 2014 Apr 10 **Speaker.** Canadian Broadcasting Corporation Radio. The need for protocols for assisted death in Canada.
- 2014 Apr 8 **Speaker.** Corus entertainment, Canadian Broadcasting Corporation, NL Broadcasting Ltd.The need for protocols for assisted death in Canada. A series of 10-minute interviews about the CMAJ article published this week.
- 2014 Apr 7-8 **Visiting Professor.** Cancer Care Manitoba. Nonbeneficial Treatment in Canada following the Rasouli Decision; Quality and Everything that Lies between; Physician-Assisted Death in Canada: Moving Beyond "Yes" and "No". Winnipeg, Manitoba, Canada.
- 2014 Apr 7 **Speaker.** Postmedia News. 'Physician-assisted death is going to become legal': Canada's right-to-die debate almost over, doctors say.
- 2014 Apr 7 **Speaker.** Canadian Press. MDs need to prepare for eventual legalized assisted suicide, some doctors argue.

## National

- 2015 Nov 18 **Invited Speaker.** Physician Assisted Death in Canada: Where we are, where we are going. McMaster University Division of Palliative Care, Hamilton, Ontario, Canada.
- 2015 Nov 10 **Invited Speaker.** Cardiac Palliation. McMaster University Division of Cardiology Grand Rounds, Hamilton, Ontario, Canada.
- 2015 Nov 6 **Invited Speaker.** Preparing for the Future: Physician-Assisted Death. Central LHIN - Cancer Care Ontario, Markham, Ontario, Canada.
- 2015 Nov 4 **Invited Lecturer.** Preparing for the Future: Physician-Assisted Death. Division of Oncology, Trillium Health Partners, Mississauga, Ontario, Canada.
- 2015 Oct 31 **Invited Speaker.** Challenge Panel: Preparing for the Future of Physician-Assisted Death. Canadian Hospice and Palliative Care Association, Ottawa, Ontario, Canada.
- 2015 Oct 29 **Invited Speaker.** How should medical professionals approach EOL care in the frail elderly? TechValuNet - Satellite symposium at the Canadian Hospice and Palliative Care Association Annual Meeting 2015, Ottawa, Ontario, Canada. Presenter(s): Andrews M, Lau F, Downar J, Fowler R, You J.
- 2015 Oct 17 **Keynote Speaker.** Preparing for the Future: Physician-Assisted Death. Queen's University - Facing the Challenges of Aging and Dying, Kingston, Ontario, Canada.
- 2015 Oct 13 **Invited Speaker.** Preparing for the Future: Physician-Assisted Death. Bioethics Group, Trillium Health Partners, Mississauga, Ontario, Canada.
- 2015 Sep 22 **Invited Speaker.** Palliative Care in the ICU. Royal Victoria Hospital (Barrie), Barrie, Ontario, Canada.
- 2015 May 25 **Invited Lecturer.** Preparing for the Future: Physician-Assisted Death. Division of Critical Care, University of Western Ontario, London, Ontario, Canada.
- 2015 May 25 **Invited Lecturer.** Critical Communication in the ICU. Division of Critical Care, University of Western Ontario, London, Ontario, Canada.
- 2015 May 25 **Invited Lecturer.** Non-Beneficial Treatment in Canada Following the Rasouli Decision. Division of Critical Care, University of Western Ontario, London, Ontario, Canada.
- 2015 Apr 19 **Presenter.** Advance Care Planning in Non Cancer Illnesses. Hospice Palliative Care Ontario, Markham, Ontario, Canada. Presenter(s): James Downar.

- 2015 Feb 9 **Speaker.** Assisted death in Canada. Interviewer: Craig Needles. The Craig Needles Show. London, Ontario, Canada.
- 2015 Jan 19 **Invited Speaker.** Palliative Care in the ICU. Quinte Health Care Corporation, Trenton, Ontario, Canada.
- 2014 Dec 10 **Presenter.** Canadian Hospice and Palliative Care Association. Non-Cancer Illness Webinar Series: Congestive Heart Failure.
- 2014 Dec 4 **Speaker.** Canadian Broadcasting Corporation. Palliative Care vs Assisted Suicide: A False Dichotomy?
- 2014 Nov 6 **Speaker.** The Globe and Mail. The story behind the CMA's overwhelming change on assisted death.
- 2014 Oct 20 **Invited Speaker.** Hon. Stephen Fletcher, MP. Presentation to Members of Parliament: The Case for Medically Assisted Death in Canada (Bill C581). Ottawa, Ontario, Toronto.
- 2014 Oct 9 **Invited Lecturer.** Hotel-Dieu Grace Healthcare. Palliative Care in the ICU; Nonbeneficial Care in Canada following the Rasouli Decision. Windsor, Ontario, Canada.
- 2014 Apr 28 **Presenter.** Hospice Palliative Care Ontario. Palliative Care in Non Cancer Illnesses. Markham, Ontario, Canada.
- 2014 Apr 10 **Invited Speaker.** Canadian Association of Retired Persons: London, ON The Right to Assisted Death in Canada. London, Ontario, Canada.
- 2014 Apr 11 **Speaker.** CTV Assisted death in Canada. London, Ontario, Canada.
- 2014 Apr 11 **Speaker.** Corus. Assisted death in Canada. Hamilton, Ontario, Canada.

## Local

- 2015 Dec 2 **Invited Speaker.** Physician Assisted Death in Canada: Where we are, where we are going. Joint Centre for Bioethics- 20th Anniversary Education Day, Toronto, Ontario, Canada. Presenter(s): Dr. Philip Hebert, Dr. Wayne Sumner, Dr. Monica Branigan, Dr. James Downar.
- 2015 Nov 12 **Speaker.** Rapid Response Teams and End-of-Life Care. University Health Network Critical Care Response Team Education Day, Toronto, Ontario, Canada.
- 2015 Oct 27 **Invited Speaker.** Evolving Medical Decision-Making in Canada. Critical Care Canada Forum 2015, Toronto, Ontario, Canada.
- 2015 Oct 26 **Invited Speaker.** Physician-Assisted Death and Organ Donation in Canada. Critical Care Canada Forum 2015, Toronto, Ontario, Canada.

- 2015 Oct 26 **Invited Speaker.** Bereavement Support. Critical Care Canada Forum 2015, Toronto, Ontario, Canada.
- 2015 Oct 25 **Invited Speaker.** Medical Decisions at the End of Life. Ontario Long-Term Care Physicians Annual Meeting - 2015, Toronto, Ontario, Canada.
- 2015 Oct 17 **Invited Speaker.** Cardiac Palliation. 16th Annual Canadian EP Fellows Course, Toronto, Ontario, Canada.
- 2015 Sep 29 **Presenter.** Medicazione RAionalizion (MERA): A Pilot Study. TechValuNet Annual Scientific Meeting, Toronto, Ontario, Canada. Presenter(s): Downar J, Whitty R.
- 2015 Jun 19 **Invited Speaker.** Beyond the Debate: A thought-provoking conversation on the future of physician-assisted suicide. University of Toronto, Institute of Medical Science, Toronto, Ontario, Canada. Presenter(s): Jeff Blackmer, Jean Echlin, Kerry Bowman, James Downar. Panel Speaker. Available from: [www.beyondthedebate.ca](http://www.beyondthedebate.ca).
- 2015 Jun 5 **Invited Speaker.** "How do we involve Palliative Care in the management of our patients?". 25th International Symposium on Adult Congenital Heart Disease, Toronto, Ontario, Canada. Breakout workshop on Advance Care Planning
- 2015 May 8 **Speaker.** The Ethics of ECLS. UHN Extracorporeal Life Support Symposium, Toronto, Ontario, Canada.
- 2015 Apr 28 **Speaker.** Federal Government will not table legislation on assisted death before election. Interviewer: Dale Goldhawk. Goldhawk Fights Back. Zoomer, Toronto, Ontario, Canada. Available from: [http://zmls3.zoomerradio.s3.amazonaws.com/podcasts/goldhawk/2015-04-28-Goldhawk\\_Podcast1.mp3](http://zmls3.zoomerradio.s3.amazonaws.com/podcasts/goldhawk/2015-04-28-Goldhawk_Podcast1.mp3)
- 2015 Apr 15 **Speaker.** First human head transplant attempt faces harsh criticism. Interviewer: Anna Maria Tremonti. The Current. Canadian Broadcasting Corporation, Toronto, Ontario, Canada. Available from: <http://www.cbc.ca/radio/thecurrent/the-current-for-april-15-2015-1.3033488/first-human-head-transplant-attempt-faces-harsh-criticism-1.3033519>.
- 2015 Apr 10 **Presenter.** Palliative Inotropes for End-Stage Heart Failure. Toronto, Ontario, Canada.
- 2015 Apr 7 **Speaker.** Department of Emergency Medicine Grand Rounds: Palliative Care in the ER. Department of Emergency Medicine, University of Toronto, Toronto, Ontario, Canada.
- 2015 Mar 30 **Presenter.** Behavioural Sciences and Health Research Rounds: ICU BEREAVE. Department of Psychosocial Oncology, UHN, Toronto, Ontario, Canada.

- 2015 Mar 30 **Speaker.** Physician Assisted Death: Where do we go from here. Centre for Ethics, University of Toronto, Toronto, Ontario, Canada. Presenter(s): James Downar, Jocelyn Downie, Wayne Sumner.
- 2015 Mar 5 **Speaker.** Perspectives on Advance Care Planning. Toronto General Hospital Professional Practice Rounds, Toronto, Ontario, Canada. Presenter(s): Anstey K, Downar J.
- 2015 Feb 21 **Speaker.** Physician Assisted Death in Canada. Interviewer: The Motts. The Motts Show. CFRB 1010, Toronto, Ontario, Canada. Available from: <http://www.themotts.ca/shows/20150221.mp3>.
- 2015 Feb 15 **Speaker.** Physician Assisted Death in Canada. Interviewer: Rex Murphy. Cross-Country Checkup. Canadian Broadcasting Corporation, Canada. Available from: <http://www.cbc.ca/radio/checkup/what-safeguards-need-to-be-included-in-the-coming-law-on-assisted-death-1.2956782>.
- 2015 Feb 10 **Speaker.** In wake of assisted-suicide ruling, a huge question looms: who does the killing? Interviewer: Sharon Kirkey. National Post/Postmedia, Canada. Available from: <http://news.nationalpost.com/2015/02/10/in-wake-of-assisted-suicide-ruling-a-huge-question-looms-who-does-the-killing/>.
- 2015 Feb 9 **Speaker.** Rights may conflict with assisted dying ruling. Interviewer: Laura Eggerston. Canadian Medical Association Journal, Canada. Available from: [http://www.cmaj.ca/site/earlyreleases/9feb15\\_fights-may-conflict-with-assisted-dying-ruling.xhtml](http://www.cmaj.ca/site/earlyreleases/9feb15_fights-may-conflict-with-assisted-dying-ruling.xhtml).
- 2015 Feb 7 **Speaker.** Assisted death: How to weigh doctors' rights with right to die? Interviewer: Alex Ballingall. Toronto Star, Canada. Available from: <http://www.thestar.com/news/gta/2015/02/07/assisted-death-how-to-weigh-doctors-rights-with-right-to-die.html>.
- 2015 Feb 7 **Speaker.** Assisted suicide: Physicians want more palliative care as well. Interviewer: June Chua. CBC News Website. Canadian Broadcasting Corporation, Canada. Available from: <http://www.cbc.ca/news/health/assisted-suicide-physicians-want-more-palliative-care-as-well-1.2948265>.
- 2015 Feb 6 **Speaker.** Assisted Death in Canada. Interviewer: Marko Roy. Le Midi Trente. Societe Radio-Canada, Ontario, Canada. French Interview.
- 2015 Feb 6 **Speaker.** Assisted Death in Canada. CBC News Network. Canadian Broadcasting Corporation, Canada.
- 2015 Feb 6 **Speaker.** Canadian MDs, many hesitant about assisted death, assessing Supreme Court ruling. Interviewer: Helen Branswell. Canadian Press, Canada. Available from: <http://www.carlyleobserver.com/news/national-news/canadian-mds-many-hesitant-about-assisted-death-assessing-supreme-court-ruling-1.1755088>.



- 2015 Feb 6 **Speaker.** Assisted Death in Canada. CTV News Network. CTV, Canada.
- 2015 Feb 6 **Speaker.** Assisted Death in Canada. Interviewer: Carol Off. As It Happens. Canadian Broadcasting Corporation, Canada. Available from: <http://www.cbc.ca/radio/asithappens/supreme-court-assisted-suicide-lawyer-fraze-palliative-care-doctor-hpv-vaccine-reaction-and-more-1.2952413>.
- 2015 Feb 6 **Speaker.** Assisted Death in Canada. Interviewer: Matt Galloway. Metro Morning. Canadian Broadcasting Corporation, Toronto, Ontario, Canada. Available from: [http://podcast.cbc.ca/mp3/podcasts/metromorning\\_20150206\\_19586.mp3](http://podcast.cbc.ca/mp3/podcasts/metromorning_20150206_19586.mp3).
- 2015 Feb 4 **Speaker.** Barriers to Advance Care Planning in Canada- The DECIDE Study. Interviewer: John Gormley. The John Gormley Show. Regina, Saskatchewan, Canada. Available from: <http://www.ckom.com/ckom-podcasts>.
- 2015 Jan 31 **Invited Speaker.** Euthanasia Panel Discussion. Ontario Thoracic Society, Toronto, Ontario, Canada. Presenter(s): Downar J, Sibbald R.
- 2015 Jan 22 **Speaker.** Sometimes there is no cure: Doctors, machines and technology can keep us alive, but why? Interviewer: Sharon Kirkey. National Post/Postmedia, Canada. Available from: <http://news.nationalpost.com/2015/01/22/sometimes-there-is-no-cure-doctors-machines-and-technology-can-keep-us-alive-but-why/>.
- 2015 **Speaker.** Innovative Palliative Care Models. Canadian Medical Association. Canada. A report highlighting “Palliative Care physician leaders” across the country to show different models of Palliative Care provision.
- 2014 Oct 30 **Invited Speaker.** Critical Care Canada Forum 2014. Physician-Assisted Death in Canada; The hypnotic effect of propranolol on patients receiving mechanical ventilation. Toronto, Ontario, Canada.
- 2014 Oct 29 **Invited Speaker.** Critical Care Canada Forum 2014. The Ethics of ECLS - When to Start and When to Stop? Toronto, Ontario, Canada.
- 2014 Oct 8 **Speaker.** Zoomer Radio. Assisted Death in Canada. Toronto, Ontario, Canada.
- 2014 Oct 8 **Speaker.** Canadian Broadcasting Corporation. Assisted Death in Canada. Toronto, Ontario, Canada.
- 2014 Oct 1 **Presenter.** UHN MSICU Interprofessional Rounds. Dying with Dignity. Toronto, Ontario, Canada.
- 2014 Sept 26 **Speaker.** Zoomer TV. An Adult Conversation on Medically Assisted Dying Panel (Discussion of assisted death in Canada). Toronto, Ontario, Canada.

- 2014 Sept 23 **Presenter.** TechValuNet National Meeting 2014. DECIDE 2 COMMUNICATE Pilot. Toronto, Ontario, Canada.
- 2014 Sept19 **Lecturer.** Grand Rounds, Psychosocial Oncology and Palliative Care, UHN. Nonbeneficial Treatment in Canada following the Rasouli Decision. Toronto, Ontario, Canada.
- 2014 Sept 18 **Lecturer.** University of Toronto Division of Palliative Care Grand Rounds. Preparing for the Future: The Changing Landscape in Physician-Assisted Death. Toronto, Ontario, Canada.
- 2014 Sept 10 **Speaker.** Assisted Death in Canada. Toronto, Ontario, Canada.
- 2014 Aug 20 **Speaker.** Zoomer Radio. Assisted Death in Canada. Toronto, Ontario, Canada.
- 2014 Dec 17 **Invited Speaker.** UHN Congenital Cardiac Centre- Academic Teaching Rounds. Toronto, Ontario, Canada.
- 2014 Jun 24 **Invited Speaker.** Grand Rounds, Institute for Clinical Evaluative Sciences. Nonbeneficial Treatment in Canada following the Rasouli Decision. Toronto, Ontario, Canada.
- 2014 Jun 10 **Presenter.** University of Toronto Critical Care Medicine Fellowship. Downar The hypnotic effect of propranolol on patients receiving mechanical ventilation. Toronto, Ontario, Canada.
- 2014 Jun 10 **Presenter.** Critical Care Canada Forum 2014. A survey of physician knowledge of and attitudes towards the Rasouli decision. Toronto, Ontario, Canada.
- 2014 Apr 24 **Speaker.** Zoomer Radio. The need for protocols for assisted death in Canada. Toronto, Ontario, Canada.
- 2014 Feb 28 **Invited Speaker.** Wycliffe College: Society and Culture Series. Euthanasia: A Debate. Toronto, Ontario, Canada.
- 2014 Jan 24 **Invited Speaker.** Canadian Network for Mood and Anxiety Disorders (CANMAT). Oral Ketamine for Chronic Pain. Toronto, Ontario, Canada.
- 2014 Jan 21 **Invited Speaker.** UHN/MSH Division of Rheumatology. Articulating a need for Palliative Care in the Rheumatology Population. Weekly Divisional Rounds for Staff and Residents. Toronto, Ontario, Canada.

## Honours and Awards

2015 May

**William J. Sibbald Visiting Professorship**, University of Western Ontario, London, Ontario, Canada. (Distinction).

2014 Jul - 2015 Jun

**Wightman-Berris Award for Teaching Excellence**, Dept of Medicine, Faculty of Medicine, University of Toronto. (Postgraduate MD).

**Dr. Eddy Fan (University Health Network – Toronto General Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Del Sorbo L, Goffi A, Goligher E, **Fan E**, Slutsky AS. Setting mechanical ventilation in ARDS patients during VV-ECMO: where are we? *Minerva Anesthesiol.* 2015 Dec 1;81(12):1369-76. **Coauthor or Collaborator.**

(O’Gara B, **Fan E**, Talmor DS. Controversies in the Management of Severe ARDS: Optimal Ventilator Management and Use of Rescue Therapies. *Semin Respir Crit Care Med.* 2015 Dec 1;36(6):823-34. **Coauthor or Collaborator.**

**Fan E**, Herridge MS. Finally, a time and place for electrophysiological testing in critically ill patients? *Intensive Care Med.* 2015 Dec 1;41(12):2221-3. **Principal Author.**

Silversides JA, Ferguson AJ, McAuley DF, Blackwood B, Marshall JC, **Fan E**. Fluid strategies and outcomes in patients with acute respiratory distress syndrome, systemic inflammatory response syndrome and sepsis: a protocol for a systematic review and meta-analysis. *Syst Rev.* 2015 Nov 12;4(1):162. **Senior Responsible Author.**

Douflé G, Roscoe A, Billia F, **Fan E**. Echocardiography for adult patients supported with extracorporeal membrane oxygenation. *Crit Care.* 2015 Oct 2;19:326. **Senior Responsible Author.**

Douflé G, Facchin F, Anwar S, **Fan E**. Severe hypercoagulable state on veno-arterial extracorporeal membrane oxygenation. *Intensive Care Med.* 2015 Sep 11. **Senior Responsible Author.**

Goligher EC, **Fan E**, Herridge MS, Murray A, Vorona S, Brace D, Rittayamai N, Lanys A, Tomlinson G, Singh JM, Bolz SS, Rubenfeld GD, Kavanagh BP, Brochard LJ, Ferguson ND. Evolution of Diaphragm Thickness During Mechanical Ventilation: Impact of Inspiratory Effort. *Am J Respir Crit Care Med.* 2015 Jul 13. **Coauthor or Collaborator.**

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Del Sorbo L, Goffi A, Goligher E, **Fan E**, Slutsky AS. Setting Mechanical ventilation in ARDS patients during VV-ECMO: where are we? *Minerva Anesthesiol*. 2014 Oct 10. **Coauthor or Collaborator**.

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### Comments

**Fan E**, Brodie D. Higher volumes, better outcomes: the end or just the beginning of the story for extracorporeal membrane oxygenation? *Am J Respir Crit Care Med*. 2015 Apr 15;191(8):864-6. **Principal Author**.

### Editorials

**Fan E**, Brochard L. Underuse versus equipoise for low tidal volume ventilation in acute respiratory distress syndrome: is this the right question?\*. *Crit Care Med*. 2014 Oct 1;42(10):2310-1. **Principal Author**.

**Fan E**, Pham T. Extracorporeal membrane oxygenation for severe acute respiratory failure: yes we can! (But should we?). *Am J Respir Crit Care Med*. 2014 Jun 1;189(11):1293-5. **Co-Principal Author**.

**Fan E**, Brodie D, Slutsky AS. Ventilation in acute respiratory distress syndrome: less may be more, in more than one way. *Crit Care Med*. 2014 Jun 1;42(6):1581-2. **Principal Author**.

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Stephens R, **Fan E**. Choosing wisely - when to mend a broken heart with ECMO? *Crit Care*. 2014 Feb 20;18(1):112. **Senior Responsible Author**.

Goddard SL, **Fan E**. "Only few find the way, some don't recognize it when they do ..."--can we "observe" causality? *Crit Care Med*. 2014 Jan 1;42(1):208-9. **Senior Responsible Author**.

### Letters to the Editor

Munshi L, Walkey A, **Fan E**. Reply: extracorporeal life support. *Ann Am Thorac Soc*. 2014 Jul 1;11(6):993. **Senior Responsible Author**.

## Peer-Reviewed Fundings

- 2015 Jul - 2020 Jun **Principal Investigator.** Strategies for Optimal Lung Ventilation in ECMO for ARDS: The SOLVE ARDS Study. Canadian Institutes of Health Research (CIHR), New Investigator Award. \$300,000.00 CAD. [Grants].
- 2015 Apr - 2017 Mar **Principal Investigator.** Gas exchange extracorporeal techniques: The XXL Study. MSH-UHN AMO, AFP Innovation Fund. \$130,950.00 CAD. [Grants].
- 2015 Jan - 2015 Dec **Principal Investigator.** The Impact of Oxygen and Carbon Dioxide Thresholds on Mortality during ECLS. Extracorporeal Life Support Organization (ELSO), Research Grant. \$5,000.00 USD [Grants].
- 2014 Oct - 2016 Sep **Co-Investigator.** Frequency and Screening and SBT Technique Trial: The FAST Trial. Canadian Institutes of Health Research (CIHR), Open Operating Grant. \$158,000.00 CAD. [Grants].
- 2014 Aug - 2015 Jul **Co-Investigator.** Liberation from Mechanical Ventilation and Screening Frequency Trial: The RELEASE Trial. Ontario Thoracic Society (OTS), Grant-in-Aid. \$50,000.00 CAD. [Grants].
- 2014 Jul - 2016 Jun **Co-Investigator.** Screening Elderly Patients for Inclusion in a Weaning Trial: The SENIOR Trial. TechValueNet (TVN), Catalyst Grant. PI: Burns, Karen. \$100,000.00 CAD. [Grants].
- 2014 Apr - 2016 Mar **Principal Investigator.** The Importance of Spontaneous Breathing Efforts in Mechanically Ventilated Patients with Acute Respiratory Distress Syndrome. Physician Services Incorporated (PSI) Foundation. \$170,000.00 CAD. [Grants].
- 2014 Apr - 2015 Oct **Co-Investigator.** Intensive Care Rehabilitation Study (ICURuS): Barriers to Early Physical Rehabilitation in the ICU – A Delphi Study. Canadian Institutes of Health Research (CIHR). PI: Cuthbertson B. \$88,438.00 CAD. [Grants].
- 2013 Dec - 2015 Nov **Principal Investigator.** Strategies for Optimal Lung Ventilation in ECMO for ARDS: The SOLVE ARDS Study. Physician Services Incorporated (PSI) Foundation. \$57,500.00 CAD. [Grants].

## Non-Peer-Reviewed Fundings

- 2015 May - 2016 May **Principal Investigator.** The International ECMONet Registry Project. Hearts of ECMO. \$15,000.00 USD. [Donations].
- 2013 Dec - 2015 Dec **Principal Site Investigator.** ECMO to Rescue Lung Injury in Severe ARDS (EOLIA). Assistance Publique – Hopitaux de Paris (AP-HP). PI: Combes A. Equipment in-kind (Maquet) [Industrial Grants]
- 2013 Oct - 2016 Sep **Principal Investigator.** Prospective Evaluation of the Vision Alpha in Adults with Acute Lung Injury. Nihon Kohden Corporation. \$297,000.00 CAD [Industrial Grants]

## Invited Lectures and Presentation

### International

- 2015 Dec 16 **Invited Lecturer.** Refractory Hypoxemia in ARDS. Cook County Trauma Rounds, Chicago, Illinois, United States.
- 2015 Dec 8 **Invited Speaker.** Early Mobility - Making it Happen. UK Intensive Care Society State of the Art Meeting, London, City of, United Kingdom.
- 2015 Dec 8 **Invited Speaker.** Rehab Can Make A Difference (Pro-Con Debate). UK Intensive Care Society State of the Art Meeting, London, City of, United Kingdom.
- 2015 Dec 8 **Invited Speaker.** ECMO: You Are Doing It All Wrong (Pro-Con Debate). UK Intensive Care Society State of the Art Meeting, London, City of, United Kingdom.
- 2015 Dec 8 **Invited Speaker.** ARDS Definitions Are Killing Research in the Field (Pro-Con Debate). UK Intensive Care Society State of the Art Meeting, London, City of, United Kingdom.
- 2015 Dec 7 **Invited Speaker.** ECMO for Severe Hypoxia - A North American Perspective. UK Intensive Care Society State of the Art Meeting, London, City of, United Kingdom.
- 2015 Nov 8 **Invited Speaker.** ECLS to Facilitate Lung Protection in ARDS. 61st Annual American Association for Respiratory Care (AARC) Congress, Tampa, Florida, United States.
- 2015 Nov 7 **Invited Speaker.** Spontaneous Breathing in ARDS. 61st Annual American Association for Respiratory Care (AARC) Congress, Tampa, Florida, United States.



- 2015 Sep 19 **Invited Speaker.** Mechanical Ventilation During VV ECMO. 28th Annual ELSO Conference, Atlanta, Georgia, United States.
- 2015 Jun 25 **Invited Speaker.** Integrating Morbidity and Mortality Outcomes in Clinical Trials. International Congress on ECMO and Short Term Circulatory/Respiratory Support, Paris, France.
- 2015 Jun 16 **Facilitator.** ECMO - Future Studies. Collaborative Clinical Trials in Intensive Care Medicine Conference, Prato, Italy.
- 2015 Jun 15 **Invited Speaker.** ICU Recovery - International Practice. Collaborative Clinical Trials in Intensive Care Medicine Conference, Prato, Italy.
- 2015 May 15 **Invited Speaker.** Mechanical Ventilation during VV ECMO. American Thoracic Society International Meeting, Denver, Colorado, United States.
- 2015 May 9 **Invited Speaker.** Superprotective Ventilation with ECCO2R: Goals, Complications, Future Directions. EuroELSO 2015 Meeting, Regensburg, Germany.
- 2015 May 8 **Invited Speaker.** Weaning VV ECMO - Is There a Best Way? EuroELSO 2015 Meeting, Regensburg, Germany.
- 2015 Mar 19 **Invited Speaker.** Predicting VV ECMO Success. 35th International Symposium of Intensive and Emergency Medicine, Brussels, Belgium.
- 2015 Mar 19 **Invited Speaker.** How to Maximize Lung Protection with Extracorporeal Support. 35th International Symposium of Intensive and Emergency Medicine, Brussels, Belgium.
- 2015 Mar 17 **Invited Speaker.** ICUAW - Outcomes. 35th International Symposium of Intensive and Emergency Medicine, Brussels, Belgium.
- 2015 Mar 17 **Invited Speaker.** Refractory Hypoxemia in ARDS. 35th International Symposium of Intensive and Emergency Medicine, Brussels, Belgium.
- 2015 Jan 29 **Invited Speaker.** From Good to Great? Customizing Mechanical Ventilation in ARDS. Columbia University/New York Presbyterian Hospital, New York, New York, United States.
- 2015 Jan 23 **Distinguished Speaker.** Wake Up, Get Up, and Get Out Early: ICU-acquired Weakness and Early Mobility in the ICU. Critical Care Reviews Conference, Belfast, United Kingdom.
- 2015 Jan 23 **Distinguished Speaker.** ECMO for ARDS: Who, What, Where, When, How? Critical Care Reviews Conference, Belfast, United Kingdom.

- 2014 Dec 10 **Invited Speaker.** American Association for Respiratory Care Approaches to Refractory Hypoxemia - APRV and HFOV; PEEP in ARDS Must Be Optimized Using Transpulmonary Pressure - Not So Fast. Las Vegas, Nevada, United States.
- 2014 Jul 17 **Invited Speaker.** 8th Alfred Advanced Mechanical Ventilation Conference HFOV in ARDS: Is it Finished in Adults?; Extracorporeal CO2 Removal: Preventing Intubation and Minimizing VILI; ICU-Acquired Weakness: Do We Diagnose it Early Enough? Melbourne, Australia
- 2014 Jul 16 **Session Instructor.** Alfred ICU Ventilator Waveforms Workshop. Airflow Obstruction: Lower Airway. Melbourne, Australia.
- 2014 Jul 9 **Invited Speaker.** Japanese HFO Experts Meeting. Setting Mean Airway Pressure in HFOV. Saitama, Japan.
- 2014 Jun 22 **Distinguished Speaker.** 5th Shanghai Respiratory International Forum Novel Approaches to Minimize Ventilator-Induced Lung Injury. Shanghai, China.
- 2014 Jun 6 **Invited Speaker.** Universita degli Studi di Padova. Department of Medicine Refractory Hypoxemia and Severe ARDS. Padova, Italy
- 2014 May 18 **Invited Speaker.** American Thoracic Society International Meeting. Focusing on Quality Improvement to Improve Outcomes in ARDS. San Diego, California, United States.
- 2014 May 23-24 **Facilitator.** EuroELSO 2014 Meeting. Extracorporeal Lung Support. Paris, France.
- 2014 May 23-24 **Invited Speaker.** EuroELSO 2014 Meeting. The Emerging Role of ECCO2R to Prevent VILI in ARDS; Prediction of VV ECMO Success. Paris, France.
- 2014 May 18 **Chair.** American Thoracic Society International Meeting. ARDS 2024: Looking to the Next Decade. San Diego, California, United States
- 2014 Apr 26 **Facilitator.** American Association of Thoracic Surgery. ECLS Hands-On Session Simulation Session Faculty. United States
- National**
- 2014 Feb 3 **Invited Speaker.** Hamilton Regional Critical Care Rounds. Extracorporeal Life Support for Acute Respiratory Failure. Hamilton, Ontario, Canada.

## Local

- 2015 May 4 **Keynote Speaker.** Managing ARDS - An Important “Turn” of Events. Evolutions in Critical Care 2015 - CACCN Toronto Chapter, Toronto, Ontario, Canada.
- 2015 Jan 31 **Invited Speaker.** ECCO2R for Respiratory Failure. Better Breathing Conference, Toronto, Ontario, Canada.
- 2015 Oct 27 **Invited Speaker.** Predicting ECMO Outcomes. Canada Critical Care Forum, Toronto, Ontario, Canada.
- 2014 Oct 29 **Chair.** Canada Critical Care Forum. Severe Acute Respiratory Failure - A Masterclass. Toronto, Ontario, Canada.
- 2014 Oct 30 **Invited Speaker.** Canada Critical Care Forum. Monitoring and Managing – EIT. Toronto, Ontario, Canada.
- 2014 Feb 25 **Invited Speaker.** St. Joseph’s Health Centre. Extracorporeal Life Support for Acute Respiratory Failure. Toronto, Ontario, Canada.
- 2014 Apr 4 **Invited Speaker.** UHN Perfusion ECLS Symposium. Extracorporeal Life Support for Acute Respiratory Failure. Toronto, Ontario, Canada.

## Honours and Awards

- 2014 Clinical Teaching Award. Toronto General Hospital - Interdepartmental Division of Critical Care Medicine, University of Toronto.

**Dr. Niall Ferguson (University Health Network – Toronto General Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Goligher EC, Kavanagh BP, Rubenfeld GD, **Ferguson ND**. Physiologic Responsiveness Should Guide Entry into Randomized Controlled Trials. *Am J Respir Crit Care Med*. 2015 Dec 15;192(12):1416-9. **Senior Responsible Author**.

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Jerath A, **Ferguson ND**, Steel A, Wijeyesundera D, Macdonald J, Wasowicz M. The use of volatile anesthetic agents for long-term critical care sedation (VALTS): study protocol for a pilot randomized controlled trial. *Trials*. 2015 Dec 9;16(1):560. **Coauthor or Collaborator**.

Arabi YM, Cook DJ, Zhou Q, Smith O, Hand L, Turgeon AF, Matte A, Mehta S, Graham R, Brierley K, Adhikari NK, Meade MO, **Ferguson ND**, Canadian Critical Care Trials Group. Characteristics and Outcomes of Eligible Nonenrolled Patients in a Mechanical Ventilation Trial of Acute Respiratory Distress Syndrome. *Am J Respir Crit Care Med*. 2015 Dec 1;192(11):1306-13. **Senior Responsible Author**.

**Ferguson ND**, Thompson BT. Prone positioning and neuromuscular blocking agents are part of standard care in severe ARDS patients: no. *Intensive Care Medicine*. 2015 Dec 1;41(12):2198-200. **Principal Author**.

Goligher EC, Fan E, Herridge MS, Murray A, Vorona S, Brace D, Rittayamai N, Lanys A, Tomlinson G, Singh JM, Bolz SS, Rubenfeld GD, Kavanagh BP, Brochard LJ, **Ferguson ND**. Evolution of Diaphragm Thickness During Mechanical Ventilation: Impact of Inspiratory Effort. *American Journal of Respiratory & Critical Care Medicine*. 2015 Nov 1;192(9):1080-1088. **Senior Responsible Author**.

Burry L, Cook D, Herridge M, Devlin JW, Fergusson D, Meade M, Steinberg M, Skrobik Y, Olafson K, Burns K, Dodek P, Granton J, **Ferguson N**, Jacka M, Tanios M, Fowler R, Reynolds S, Keenan S, Mallick R, Mehta S, SLEAP Investigators and the Canadian Critical Care Trials Group. Recall of ICU Stay in Patients Managed With a Sedation Protocol or a Sedation Protocol With Daily Interruption. *Crit Care Med*. 2015 Oct 1;43(10):2180-90. **Coauthor or Collaborator**.

Haas B, Gotlib Conn L, Rubenfeld GD, Scales D, Amaral AC, **Ferguson ND**, Nathens AB. "It's Parallel Universes": An Analysis of Communication Between Surgeons and Intensivists. *Crit Care Med*. 2015 Oct 1;43(10):2147-54. **Coauthor or Collaborator**.

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Li G, Cook DJ, Levine MA, Guyatt G, Crowther M, Heels-Ansdell D, Holbrook A, Lamontagne F, Walter SD, **Ferguson ND**, Finfer S, Arabi YM, Bellomo R, Cooper DJ, Thabane L, PROTECT Investigators for the Canadian Critical Care Trials Group, and the Australian and New Zealand Intensive Care Society Clinical Trials Group. Competing Risk Analysis for Evaluation of Dalteparin Versus Unfractionated Heparin for Venous Thromboembolism in Medical-Surgical Critically Ill Patients. *Medicine (Baltimore)*. 2015 Sep 1;94(36):e1479. **Coauthor or Collaborator**.

Muriel A, Peñuelas O, Frutos-Vivar F, Arroliga AC, Abreira V, Thille AW, Brochard L, Nin N, Davies AR, Amin P, Du B, Raymondos K, Rios F, Violi DA, Maggiore SM, Soares MA, González M, Abroug F, Bülow HH, Hurtado J, Kuiper MA, Moreno RP, Zeggwagh AA, Villagómez AJ, Jibaja M, Soto L, D'Empaire G, Matamis D, Koh Y, Anzueto A, **Ferguson ND**, Esteban A. Impact of sedation and analgesia during noninvasive positive pressure ventilation on outcome: a marginal structural model causal analysis. *Intensive Care Med*. 2015 Sep 1;41(9):1586-600. **Coauthor or Collaborator**.

Del Sorbo L, **Ferguson ND**. High-Flow Nasal Cannulae or Noninvasive Ventilation for Management of Postoperative Respiratory Failure. *JAMA*. 2015 Jun 16;313(23):2325-6. **Senior Responsible Author**.

NICE-SUGAR Study Investigators for the Australian and New Zealand Intensive Care Society Clinical Trials Group and the Canadian Critical Care Trials Group, Finfer S, Chittock D, Li Y, Foster D, Dhingra V, Bellomo R, Cook D, Dodek P, Hebert P, Henderson W, Heyland D, Higgins A, McArthur C, Mitchell I, Myburgh J, Robinson B, Ronco J. Intensive versus conventional glucose control in critically ill patients with traumatic brain injury: long-term follow-up of a subgroup of patients from the NICE-SUGAR study. *Intensive Care Med*. 2015 Jun 1;41(6):1037-47. **Coauthor or Collaborator**.

Sutherasan Y, Peñuelas O, Muriel A, Vargas M, Frutos-Vivar F, Brunetti I, Raymondos K, D'Antini D, Nielsen N, **Ferguson ND**, Böttiger BW, Thille AW, Davies AR, Hurtado J, Rios F, Apezteguía C, Violi DA, Cakar N, González M, Du B, Kuiper MA, Soares MA, Koh Y, Moreno RP, Amin P, Tomicic V, Soto L, Bülow HH, Anzueto A, Esteban A, Pelosi P, VENTILA GROUP. Management and outcome of mechanically ventilated patients after cardiac arrest. *Critical Care*. 2015 May 8;19:215. **Coauthor or Collaborator**.

Goligher EC, Laghi F, Detsky ME, Farias P, Murray A, Brace D, Brochard LJ, Sebastien-Bolz S, Rubenfeld GD, Kavanagh BP and **Ferguson ND**. Measuring diaphragm thickness with ultrasound in mechanically ventilated patients: feasibility, reproducibility and validity. *Intensive Care Med*. 2015 Apr;41(4):642-649. Impact Factor 5.54. **Senior Responsible Author**.

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Morrison LJ, Brooks SC, Dainty KN, Dorian P, Needham D, **Ferguson ND**, Rubenfeld GD, Slutsky AS, Wax RS, Zwarenstein M, Thorpe K, Zhan C, Scales DC. Improving the Use of Targeted Temperature Management After Out-of-Hospital Cardiac Arrest: A Stepped Wedge Cluster Randomized Trial. *Critical Care Medicine*. 2015;43:954-964. Impact Factor 6.15. **Coauthor or Collaborator**.

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Seely AJ, Bravi A, Herry C, Green G, Longtin A, Ramsay T, Fergusson D, McIntyre L, Kubelik D, Maziak DE, **Ferguson ND**, Brown SM, Mehta S, Martin C, Rubenfeld G, Jacono FJ, Clifford G, Fazekas A, Marshall J. Do Heart and Respiratory Rate Variability Improve Prediction of Extubation Outcomes in Critically Ill Patients? *Critical Care* 2014;18;R65. **Coauthor or Collaborator**.

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Crowther M, Cook D, Guyatt G, Zytaruk N, McDonald E, Williamson D, Albert M, Dodek P, Finfer S, Vallance S, Heels-Ansdell D, McIntyre L, Mehta S, Lamontagne F, Muscedere J, Jacka M, Lesur O, Kutsiogiannis J, Friedrich J, Klinger JR, Qushmaq I, Burry L, Khwaja K, Sheppard JA, Warkentin TE, PROTECT collaborators, Canadian Critical Care Trials Group, Australian and New Zealand Intensive Care Society Clinical Trials Group. Heparin-induced thrombocytopenia in the critically ill: interpreting the 4Ts test in a randomized trial. *Journal of Critical Care*. 2014;29:470. **Coauthor or Collaborator.**

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Morrison LJ, Brooks SC, Dainty KN, Dorian P, Needham D, **Ferguson ND**, Rubenfeld GD, Slutsky AS, Wax RS, Zwarenstein M, Thorpe K, Zhan C, Scales DC. Improving the Use of Targeted Temperature Management After Out-of-Hospital Cardiac Arrest: A Stepped Wedge Cluster Randomized Trial. *Critical Care Medicine*. 2014. **Coauthor or Collaborator.**

Fowler RA, Mittmann N, Geerts W, Heels-Ansdell D, Gould MK, Guyatt G, Krahn M, Finfer S, Pinto R, Chan B, Ormanidhi O, Arabi Y, Qushmaq I, Rocha MG, Dodek P, McIntyre L, Hall R, **Ferguson ND**, Mehta S, Marshall JC, Doig CJ, Muscedere J, Jacka MJ, Klinger JR, Vlahakis N, Orford N, Seppelt I, Skrobik YK, Sud S, Cade JF, Cooper J, Cook DJ; for the Canadian Critical Care Trials Group and the Australia and New Zealand Intensive Care Society Clinical Trials Group. Cost-Effectiveness of Dalteparin vs. Unfractionated Heparin for the Prevention of Venous Thromboembolism in Critically Ill Patients. *JAMA*. 2014;312:2135-2145. **Coauthor or Collaborator.**

Burry L, Rose L, McCullagh IJ, Fergusson DA, **Ferguson ND**, Mehta S. Daily sedation interruption versus no daily sedation interruption for critically ill adult patients requiring invasive mechanical ventilation. *Cochrane Database of Systematic Reviews*. 2014:7. **Coauthor or Collaborator.**

## Abstracts

I Galvin, JM Singh, SE Lapinsky, AC Steel, **ND Ferguson**. Acute Respiratory Distress Syndrome Among High Risk Patients Admitted To Critical Care: Rate And Association With Critical Care Interventions. *Annals of American Thoracic Society*. 2014 May 1:A1158-A1158.**Senior Responsible Author**.

Lamontagne F, Bosma K, Adhikari N, Friedrich J, Silversides J, Sanchez J, Wise M, Arrogliia A, Arabi YM, Charbonney E, Lazosky L, Granton JT, **Ferguson ND**, Meade MO. Changes In MAP And Vasopressors Predict Mortality In Oscillation For ARDS. Data From The OSCILLATE Trial. *Annals of American Thoracic Society*. 2014 May 1: A1172-A1172. **Senior Responsible Author**.

Cameron J, Chan L , Czerwonka A, Chu L, . Matte A, Tomlinson G, Thomas C, **Ferguson ND**, et al. Caregiver Well-Being Is Dependent On Caregiver Mastery, Social Support And Participation In Valued Activities: Towards RECOVER Study. A24. *Annals of American Thoracic Society*. 2014 May 1: A1144-A1144. **Coauthor or Collaborator**.

Cook D, Hand L, Austin P, Zhou Q, Danesh V, Adhikari N, Arabi Y, Mehta S , Clarke,Andrea L. Matte F, Smith O, Wise M, Keenan S , Friedrich J, Hanna S, **Ferguson ND**, Meade M. Coenrolment In A Randomized Trial Of High Frequency Oscillation In ARDS: Prevalence, Patterns And Predictors. *Annals of American Thoracic Society*. 2014 May 1: A2542-A2542. **Coauthor or Collaborator**.

Kobayashi Tt, Munshi L, Marcelo Cypel, Shaf Keshavjee, Niall D. Ferguson, and Eddy Fan. The Evolution Of Supportive Care During Extracorporeal Life Support For Acute Respiratory Distress Syndrome: The Toronto Experience. *Annals of American Thoracic Society*. 2014 May 1: A3092-A3092. **Coauthor or Collaborator**.

Herridge M, Chu L, Matte A, Chan L, Tomlinson G, **Ferguson ND**, Mehta S, Friedrich F, et al. Long-Term Patient Outcomes After Prolonged Mechanical Ventilation: The Towards RECOVER Study. *Annals of American Thoracic Society*. 2014 May 1: A3879-A3879. **Coauthor or Collaborator**.

Arabi Y, Cook D, Smith O, Hand L, Adhikari N, Zhou Q, Turgeon A, Matte A, Mehta S, Graham R, Brierly K, **Ferguson ND**, Meade M. Characteristics And Outcomes Of Eligible Non-Enrolled Patients In The OSCILLATE Trial. *Annals of American Thoracic Society*. 2014 May 1:A4465-A4465. **Coauthor or Collaborator**.

Goligher E, Murray A, Herridge M, Fan E, **Ferguson ND**. Inspiratory Diaphragm Activity Attenuates The Rapid Onset Of Diaphragm Atrophy During The Early Course Of Mechanical Ventilation. *Annals of American Thoracic Society*. 2014 May 1: A5374-A5374.**Senior Responsible Author**.

Goligher E, Detsky M, Farias P, Murray A, Morales D, Fan E, Herridge M, Laghi F, **Ferguson ND**. Validity And Reproducibility Of Sonographic Evaluation Of Diaphragm Structure And Activity In Mechanically Ventilated Patients. *Annals of American Thoracic Society* . 2014 May 1: A6346-A6346. **Senior Responsible Author**.



## Book Chapters

Morales Quinteros L, **Ferguson ND**. Non-conventional Modes of Ventilation in Patients with ARDS. 2014 Yearbook of Intensive Care and Emergency Medicine. 2014. Editor: Vincent JL. **Senior Responsible Author**.

## Editorials

Gong MN and **Ferguson ND**. Lung-protective ventilation in acute respiratory distress syndrome. How soon is now? American Journal of Respiratory Critical Care Medicine. 2015 Jan 15;191(2):125-126. 2015 Jan 15;191(2):125-6. doi: 10.1164/rccm.201412-2250ED. **Senior Responsible Author**.

Gong MN, **Ferguson ND**. Lung-Protective Ventilation: How Soon is Now? American Journal of Respiratory & Critical Care Medicine. 2015(191):125-126. Impact Factor 11.99. **Senior Responsible Author**.

**Ferguson ND**. High-Frequency Oscillatory Ventilation for Adults: Handle with Care. Critical Care. 2014;18(4);464. **Principal Author**.

## Peer-Reviewed Fundings

- 2015 Jul - 2020 Jun **Principal Investigator**. The NEUROlogically-impaired extubation Timing Trial (NEURO-ETT). Canadian Institutes of Health Research (CIHR). Collaborator(s): N Adhikari, JM Singh, ME Wilcox, A Baker, T Mainprize, A Turgeon, V McCredie, D Zygun, AJ Seely, L Brochard, D Griesdale, K Bosma, E Charbonney, M Meade, A Nathens, GD Rubenfeld, RA Fowler, A Alai, M Chapman, BH Cuthbertson. \$880,405.00 CAD. [Grants]
- 2015 Jul - 2017 Jun **Principal Investigator**. Diaphragm Activity and Function During Mechanical Ventilation. Ontario Thoracic Society. Collaborator(s): Brochard L, Rubenfeld GD, Kavanagh BP. \$100,000.00 CAD. [Grants]
- 2014 Oct – 2016 Oct **Co-Investigator**. The Importance of Spontaneous Breathing Efforts In Mechanically Ventilated Patients with ARDS. Physicians Services Incorporated Foundation (PSI). PI: Fan E. Collaborator(s): Rubenfeld GD, Scales DC, Slutsky AS. \$170,000.00 CAD. [Grants]
- 2014 Sept – 2015 Oct **Principal Investigator**. Physiological Mechanisms of Weaning Failure in Mechanically Ventilated Patients. Ontario Thoracic Society. Collaborator(s): Goligher E, Goffi A, Brochard L. \$33,063.00 CAD. [Grants]
- 2014 Sept – 2015 Oct **Co-Investigator**. Measurement of Extravascular Lung Water to Predict Primary Graft Dysfunction and Outcomes Following Lung Transplant. Ontario Thoracic Society. PI: Cypel M. Collaborator(s): Munshi L, Rubenfeld GD, Scales DC, Granton JT, Waddell T, Keshavjee S. \$48,038.00 CAD. [Grants]

- 2013 Nov – 2016 Oct **Co-Principal Investigator.** OSCILLATE Trial – Secondary Analyses & Knowledge Translation. Canadian Institutes of Health Research (CIHR). PI: Meade M. Collaborator(s): Cook DJ, Mehta S, Stewart TE, Guyatt GH, Slutsky AS, Adhikari NK, Friedrich JO, Keenan SP, Jacka M, Lessard O, Ronco J, Dorscheid D, Gottfried S, Patel R. \$1,947,852.00 CAD. [Grants]
- 2013 Oct – 2015 Oct **Co-Principal Investigator.** Strategies for Optimal Lung Ventilation for ECMO in ARDS: The SOLVE ARDS Study. The Physicians' Services Incorporated Foundation. PI: Fan E. Collaborator(s): Goffi A, Del Sorbo L, Goligher E, Cypel M, Keshavje S, Meineri M, Brochard L, Pesenti A, Slutsky A. \$57,500.00 CAD [Grants]
- 2013 Oct – 2015 Oct **Principal Investigator.** Diaphragm Monitoring Techniques for Muscle-Protective Mechanical Ventilation: Evaluating validity, reliability, and feasibility. MSH-UHN AMO Innovation Fund. Collaborator(s): Goligher EC. \$69,749.00 CAD. [Grants]
- 2013 Oct – 2015 Oct **Principal Investigator.** Diaphragm Monitoring Techniques for Muscle-Protective Mechanical Ventilation: Evaluating validity, reliability, and feasibility. The Physicians' Services Incorporated Foundation. PI: Goligher EC. Collaborator(s): Kavanagh BP, Laghi F, Rubenfeld GR. \$119,500.00 CAD. [Grants]
- 2013 Oct – 2015 Sept **Co-Investigator.** Weaning and Variability Evaluation (WAVE) – a validation study of altered heart rate and respiratory variability to predict extubation failure. Canadian Institutes of Health Research PI: Seely AJ. Collaborator(s): Fergusson D, Hooper J, Lellouche F, Marshall JC, MacIntyre L, Ramsay T, Rubenfeld GD, Wilkes P. \$756,148.00 CAD. [Grants]
- 2013 Jul – 2018 Jun **Collaborator.** Linking Ventilator-Induced Diaphragm Dysfunction and Weaning Failure due to Diaphragm Inactivity During Mechanical Ventilation. Canadian Institutes of Health Research (CIHR). PI: Goligher EC. Supervisor: Kavanagh BP. \$275,000.00 CAD. [Grants]
- 2012 Jan – 2014 Dec **Co-Investigator.** Understanding Barriers to Early Rehabilitation in the ICU Using the 2012-2014 Toronto ICU Registry (TICUR) Project. University of Toronto. PI: Fan E. Collaborator(s): Scales DC, Rubenfeld GR. \$75,000.00 CAD. [Grants]

## Invited Lectures and Presentation

### International

- 2015 Sep 1 **Invited Speaker.** The Canadian Critical Care Society and WFSICCM 2021. Congress of the World Federation of Societies of Intensive and Critical Medicine. Seoul, Korea, Republic Of.
- 2015 Aug 15 **Invited Speaker.** Patient-Ventilator Asynchrony. How to Recognise It and How to Fix It. Annual Scientific Meeting On Intensive Care, Malaysian Society of Intensive Care. Kuala Lumpur, Malaysia.
- 2015 Aug 15 **Invited Speaker.** Selecting the Right PEEP Based on Physiological Response. Annual Scientific Meeting on Intensive Care, Malaysian Society of Intensive Care. Kuala Lumpur, Malaysia.
- 2015 Aug 15 **Invited Speaker.** Ask the Expert: Doctor Please Ventilate Me Better. Annual Scientific Meeting on Intensive Care. Kuala Lumpur, Malaysia.
- 2015 Jul 25 **Invited Speaker.** Setting the Right PEEP - Physiology at the Bedside. XVIII International Critical Care Medicine Forum, National Institute of medical Sciences and Nutrition. Salvador Zubiran, Mexico.
- 2015 Jul 24 **Invited Speaker.** ECMO - Latest Fad or Here to Stay? XVIII International Critical Care Medicine Forum, National Institute of Medical Sciences and Nutrition. Zubiran, Mexico.
- 2015 May 29 **Invited Speaker.** Monitoring and Managing Diaphragm Function during Mechanical Ventilation. 10th National Congress of Critical Care Medicine and Intensive Care, Colombian Association of Critical Care Medicine and Intensive Care. Cartagena, Colombia.
- 2015 May 29 **Invited Speaker.** Titrating PEEP at the Bedside, Alveolar Recruitment in Severe ARDS. 10th National Congress of Critical Care Medicine and Intensive Care, Colombian Association of Critical Care Medicine and Intensive Care. Cartagena, Colombia.
- 2015 Mar 20 **Invited Speaker.** Prompt Extubation or Tracheostomy in Brain-Injured Patients. 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 19 **Invited Speaker.** Patient-Ventilator Asynchrony - How to Fix It; Rescue Strategies for ARDS. 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 18 **Invited Speaker.** Evidence-Based Mechanical Ventilation in the ICU; High-Frequency Oscillation - Still an Option? Society of Critical Care Medicine International Congress. Belgium.

- 2015 Mar 17 **Invited Speaker.** Practical Aspects of ECMO. 35th International Symposium of Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Mar 17 **Invited Speaker.** Ventilation in Obstructive Lung Disease. 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Belgium.
- 2015 Jan 18 **Invited Speaker.** Oscillating Up to the Evidence. Society of Critical Care Medicine. Phoenix, Arizona, United States.
- 2014 Nov 5 **Visiting Professor.** Department of Critical Care Medicine. University of Pittsburgh Medical Center. High-Frequency Oscillatory Ventilation for Early Severe ARDS - Grand Rounds; Does This Patient Have ARDS?... and Does it Matter? - Research Rounds. Pennsylvania, Pittsburgh, United States.
- 2014 Sept 18-19 **Invited Speaker.** 24th International Congress of the Argentinian Intensive Care Society. Diagnosis of ARDS According to the Berlin Definition; High-Frequency Oscillatory Ventilation – Do We Need More Studies?; 15 Years of Clinical Trials in ARDS – What Progress Have We Made?; Setting PEEP - Is the ARDSNet PEEP / FiO<sub>2</sub> Table Still the Reference Standard?. Mar del Plata, Buenos Aires, Argentina.
- 2014 Jul 9 **Invited Speaker.** High-Frequency Oscillation Experts' Conference. Saitama Chamber of Commerce & Industry. OSCILLATE Trial Results. Saitama, Tokyo, Japan.
- 2014 May 22-23 **Invited Speaker.** 3rd Latin-American Congress on Respiratory Care and 1st International Congress on Advanced Mechanical Ventilation and Cardio-Respiratory Care. High-Frequency Oscillation: State of the Evidence; Patient-Ventilator Asynchrony – How to Recognise It and How to Fix; APRV, NAVA, and PAV – Ready for Prime Time?; Extubation Delay vs. Extubation Failure in Neuro-Surgical Patients. San Diego, California, United States.
- 2014 May 21 **Presenter.** American Thoracic Society International Conference. Inspiratory Diaphragm Activity Attenuates The Rapid Onset Of Diaphragm Atrophy During The Early Course Of Mechanical Ventilation; Validity And Reproducibility Of Sonographic Evaluation Of Diaphragm Structure And Activity In Mechanically Ventilated Patients. San Diego, California, United States.
- 2014 May 18 **Invited Speaker.** American Thoracic Society International Conference. Current and Future Clinical Trials That Will Define ARDS by 2024. Critical Care Track. San Diego, California, United States.
- 2014 May 1 **Invited Speaker.** University of Sao Paulo and University of Toronto. INCOR Respiratory Symposium Monitoring and Improving Diaphragm Function During Mechanical Ventilation. Sao Paulo, Brazil.

- 2014 Mar 23-24 **Invited Speaker.** American College of Chest Physicians 1st Chest World Congress. What To Do When Conventional Ventilation is Ineffective; Ventilation in Obstructive Lung Disease. Madrid, Spain.
- 2014 Mar 18-19 **Invited Speaker.** 34rd International Symposium on Intensive Care and Emergency Medicine ECMO – Latest Fad or Here to Stay?; HFOV – What Went Wrong in the Clinical Trials?; ARDS Diagnosis: The Berlin Definition is Useful; New Approaches to Clinical Trials: QALYs as an Outcome; Monitoring Diaphragm Function; Should We Abandon Concepts of ARDS and Sepsis? – Round Table. Brussels, Belgium.

## Local

- 2015 Oct 27 **Invited Speaker.** Non-Invasive Ventilation for Respiratory Failure in Immunosuppressed Patients. Critical Care Canada Forum 2015. Toronto, Ontario, Canada.
- 2014 Oct 29 - Nov 1 **Invited Speaker.** Critical Care Canada Forum 2014. High-Flow Nasal Cannula for Acute Respiratory Failure – Editorial Comment; ARDS Definitions – My Construct is Being Stretched. CCCF/CCCS Residents' Day; Extra-Corporeal Membrane Oxygenation – History and Basic Concepts. Severe Respiratory Failure – State of the Art; Extubation Failure in Brian Injured Patients.. Toronto, Ontario, Canada.
- 2014 Oct 7 **Invited Speaker.** Toronto General Research Institute Research Day. How to Monitor (and Prevent) Diaphragm Dysfunction During Mechanical Ventilation. Toronto, Ontario, Canada.
- 2014 Jun 5 **Invited Speaker.** Canadian Critical Care Society RCPSC Critical Care. National Exam Review Course. Respiratory Dysfunction. Toronto, Ontario, Canada.
- 2014 May 27 **Invited Speaker.** Canadian Burn Association 1st Annual Conference. High-Frequency Oscillatory Ventilation in Burns – The Con Argument. Toronto, Ontario, Canada.
- 2014 May 7 **Invited Speaker.** Canadian Association of Critical Care Nurses Toronto Chapter, EVOLUTIONS 2014 The Future of Critical Care Medicine: Challenges & Opportunities. Toronto, Ontario, Canada.

**Dr. Ewan Goligher (Mount Sinai Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

**Goligher EC**, Fan E, Herridge MS, Murray A, Vorona S, Brace D, Rittayamai N, Lanys A, Tomlinson G, Singh JM, Bolz SS, Rubenfeld GD, Kavanagh BP, Brochard LJ, Ferguson ND. Evolution of Diaphragm Thickness During Mechanical Ventilation: Impact of Inspiratory Effort. *Am J Respir Crit Care Med*. 2015;192(9):1080-8. **Principal Author.**

**Goligher EC**, Douflé G, Fan E. Update in Mechanical Ventilation, Sedation and Outcomes 2014. *Am J Respir Crit Care Med*. 2015;191(12):1367-73. **Principal Author.**

**Goligher EC**, Laghi F, Detsky ME, Farias P, Murray A, Brace D, Brochard LJ, Sebastien-Bolz S, Rubenfeld GD, Kavanagh BP, Ferguson ND. Measuring diaphragm thickness with ultrasound in mechanically ventilated patients: feasibility, reproducibility and validity. *Intensive Care Med*. 2015;41(4):642-9. [Erratum published]. **Principal Author.**

**Goligher EC**, Kavanagh BP, Rubenfeld GD, Ferguson ND. Physiologic Responsiveness Should Guide Entry into Randomized Controlled Trials. *Am J Respir Crit Care Med*. 2015;192(12):1416-9. **Principal Author.**

Del Sorbo L, Goffi A, **Goligher E**, Fan E, Slutsky AS. Setting Mechanical Ventilation in ARDS patients during VV-ECMO: where are we? *Minerva Anesthesiol*. 2014 Oct 10. [epub ahead of print]. **Coauthor or Collaborator.**

**Goligher EC**, Kavanagh BP, Rubenfeld GD, Adhikari NK, Pinto R, Fan E, Brochard LJ, Granton JT, Mercat A, Marie Richard JC, Chretien JM, Jones GL, Cook DJ, Stewart TE, Slutsky AS, Meade MO, Ferguson ND. Oxygenation response to positive end-expiratory pressure predicts mortality in acute respiratory distress syndrome. A secondary analysis of the LOVS and ExPress trials. *Am J Respir Crit Care Med*. 2014;190(1):70-6. **Principal Author.**

Brochard L, Chen L, **Goligher E**. Optimum positive end-expiratory pressure 40 years later. *Indian J Crit Care Med*. 2014;18(8):494-6. **Senior Responsible Author.**

**Goligher EC**, Villar J, Slutsky AS. PEEP in ARDS: when should we turn up the pressure? *Critical Care Medicine*. 2014;42(2):448-50. **Principal Author.**

**Abstracts**

**Goligher EC**, Urrea C, Vorona S, Brochard LJ, Sinderby C, Bolz SS, Rubenfeld GD, Kavanagh BP, Ferguson ND. Monitoring diaphragm activity and neuromechanical efficiency during acute respiratory failure: feasibility and preliminary findings. LIVES 2015 ESICM Scientific Meeting. September 2015, Berlin, Germany. *Intensive Care Medicine Experimental* 2015;3:A1002. **Principal Author.**

D Brace, M Parrotto, C Urrea, A Goffi, A Murray, E Fan, L Brochard, N Ferguson, **EC Goligher**. Respiratory muscle training during mechanical ventilation: a systematic review. International Symposium on Intensive Care and Emergency Medicine, March 2015, Brussels Belgium. Critical Care 2015, 19(Suppl 1):P231. **Senior Responsible Author**.

**Goligher EC**, Murray A, Herridge MS, Fan E, Ferguson ND. Inspiratory Diaphragm Activity Attenuates the Rapid Onset of Diaphragm Atrophy During the Early Course of Mechanical Ventilation. American Thoracic Society Scientific Meeting, May 2014, San Diego CA. Am J Respir Crit Care Med 181;2010:A5374. **Principal Author**.

**Goligher EC**, Detsky ME, Farias P, Murray A, Morales D, Herridge MS, Fan E, Matte A, Laghi F, Ferguson ND. Validity and Reproducibility of Sonographic Evaluation of Diaphragm Structure and Activity in Mechanically Ventilated Patients. American Thoracic Society Scientific Meeting, May 2014, San Diego CA. Am J Respir Crit Care Med 181;2010:A6346. **Principal Author**.

### Peer-Reviewed Fundings

- |           |                                                                                                                                                                                                                                                                  |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015-2016 | <b>Co-Principal Investigator</b> . Diaphragm Activity and Function During Mechanical Ventilation. Ontario Thoracic Society Grant-in-Aid. PI: Ferguson, N. \$50,000.00 CAD. [Grants]                                                                              |
| 2014-2015 | <b>Co-Principal Investigator</b> . Ultrasound to Evaluate Failure of Liberation from Mechanical Ventilation. Ontario Thoracic Society Grant-in-Aid. PI: Ferguson, N. \$33,000.00 CAD. [Grants]                                                                   |
| 2013-2018 | <b>Principal Investigator</b> . Linking Ventilator-Induced Diaphragm Dysfunction and Weaning Failure to Diaphragm Inactivity During Mechanical Ventilation: A Physiological Clinical Research Program. CIHR Post-Doctoral Fellowship. \$275,000.00 CAD. [Grants] |
| 2013-2015 | <b>Co-Principal Investigator</b> . Diaphragm Monitoring for Muscle-Protective Ventilation. UHN Academic Medical Organization Innovation Fund. PI: Ferguson, N. \$63,000.00 CAD. [Grants]                                                                         |
| 2013-2015 | <b>Co-Principal Investigator</b> . Diaphragm Monitoring Techniques for Muscle-Protective Mechanical Ventilation: Evaluating Validity, Reliability and Feasibility. PSI Foundation. Health Research Grant. PI: Ferguson, N. \$119,500.00 CAD. [Grants]            |
| 2012-2016 | <b>Principal Investigator</b> . Clinician-Scientist Training Program Salary Award. University of Toronto. \$220,000.00 CAD. [Grants]                                                                                                                             |

### Non-Peer-Reviewed Fundings

- |           |                                                                                                                                                                                                 |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2013-2016 | Principal Investigator. Diaphragm Atrophy in Mechanically Ventilated Patients: a Longitudinal Evaluation of Risk Factors and Outcomes. OSCILLATE Adjunct Study Award. \$50,000.00 CAD. [Grants] |
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## Invited Lectures and Presentation

### International

- 2015 May 29 **Invited Speaker.** Positive End-Expiratory Pressure for Ventilator-Induced Lung Injury. SMART Conference 2015. Milan, Italy.
- 2015 Apr 23-24 **Invited Speaker.** Myotrauma. Modern Ventilation; Techniques for Assessing Diaphragm Function: MeetingPoint 2015. Nijmegen, Netherlands.
- 2015 Apr 23 **Invited Speaker..** Modern Ventilation: MeetingPoint 2015. Nijmegen, Netherlands.
- 2015 Mar 19 **Invited Speaker.** Diaphragm Dysfunction During Mechanical Ventilation; What does the oxygenation response to PEEP mean? International Symposium on Intensive Care and Emergency Medicine, Brussels, Belgium.

### Local

- 2015 Oct 27 **Invited Speaker.** Monitoring Muscle Thickness. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2015 Oct 25 **Invited Speaker.** Weaning or Liberation – How Best to Stop Mechanical Ventilation? Acute Respiratory Failure Masterclass Pre-Conference Course. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2015 Jun 2 **Invited Speaker.** Ultrasound as a Tool for Innovation in Research. Art Slutsky Research Day, Interdepartmental Division of Critical Care Medicine, Toronto, Ontario, Canada.
- 2014 Oct 31 **Invited Speaker.** Physiological response to PEEP in ARDS. Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Sept 25 **Invited Speaker.** Can Extracorporeal Gas Exchange Facilitate Muscle Protective Mechanical Ventilation? Critical Care Physiology rounds, Interdepartmental Division of Critical Care Medicine, University of Toronto. Toronto, Ontario, Canada.
- 2014 Aug 12 **Invited Speaker.** Physiological Basis of Persistent Ventilator-Dependence. University of Toronto Critical Care Medicine Residency Program Academic Half-Day. Toronto, Ontario, Canada.
- 2014 Jun 3 **Invited Speaker.** Transitioning from Fellow to Attending Physician in the Academic Setting. University of Toronto Critical Care Medicine Leadership Day. Toronto, Ontario, Canada.
- 2014 Apr 24 **Invited Speaker.** Techniques for Assessing Diaphragm Function. Critical Care Physiology rounds, Interdepartmental Division of Critical Care Medicine, University of Toronto. Toronto, Ontario, Canada.



## **Honours and Awards**

- 2015 Best Oral Abstract-Physiology, Art Slutsky Research Day, Interdepartmental Division of Critical Care, University of Toronto
- 2014 Abstract Scholarship Award (\$500), American Thoracic Society International Conference, San Diego, USA
- 2014 Best Oral Abstract Presentation, Annual Resident Research Day, Interdepartmental Division of Critical Care, University of Toronto
- 2014 School of Graduate Studies Conference Grant, University of Toronto

**Dr. Alberto Goffi (University Health Network – Toronto Western Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Del Sorbo L, **Goffi A**, Goligher E, Fan E, Slutsky AS. Setting mechanical ventilation in ARDS patients during VV-ECMO: where are we? *Minerva Anesthesiol.* 2015 Dec 1;81(12):1369-76. [\*These authors contributed equally to the work]. Impact Factor 2.272. **Co-Principal Author.**

Douflé G, Roscoe A, Billia F, Fan E. Echocardiography for adult patients supported with extracorporeal membrane oxygenation. *Crit Care.* 2015 Oct 2;19:326. **Acknowledged in Publication (Not Author).**

3Pivetta E, **Goffi A**, Lupia E, Tizzani M, Porrino G, Ferreri E, Volpicelli G, Balzaretto P, Banderali A, Iacobucci A, Locatelli S, Casoli G, Stone MB, Maule MM, Baldi I, Merletti F, Cibinel GA, SIMEU Group for Lung Ultrasound in the Emergency Department in Piedmont. Lung Ultrasound-Implemented Diagnosis of Acute Decompensated Heart Failure in the ED: A SIMEU Multicenter Study. *Chest.* 2015 Jul 1;148(1):202-10. Impact Factor 7.132. **Coauthor or Collaborator.**

**Book Chapters**

**Goffi A.** Medical management and complications. In: Di Ieva A, Lee J, and Cusimano M., editor(s). *Handbook of Skullbase Surgery.* Thieme; 2015. In Press. **Principal Author.**

**Editorials**

Aryal D, Acharya SP, Shrestha GS, **Goffi A**, Hawryluck L. Nepal after the disaster. Insider points of view for the future of critical care medicine. *Am J Respir Crit Care Med.* 2015 Oct 1;192(7):781-4. **Coauthor or Collaborator.**

**Letters to Editor**

Pivetta E, **Goffi A**, Lupia E, Tizzani M, Porrino G, Ferreri E, Volpicelli G, Balzaretto P, Banderali A, Iacobucci A, Locatelli S, Casoli G, Stone MB, Maule MM, Baldi I, Merletti F, Cibinel G, for the SIMEU Group for Lung Ultrasound in the Emergency Department in Piedmont. Reply: Lung Ultrasound in the emergency setting: accuracy cannot exclude expertise. *Chest.* 2015. In Press. Impact Factor 7.132. **Coauthor or Collaborator.**

## Peer-Reviewed Fundings

- 2015 **Co-Investigator.** Situating education in patient care: exploring how residents navigate learning opportunities for central venous catheter insertion skills. University of Toronto. Department of Medicine Education Research & Scholarship Fund. PI: Brydges R. \$11,250.00 CAD. [Grants]
- 2013 - 2015 **Co-Investigator.** Strategies for Optimal Lung Ventilation in ECMO for ARDS: The SOLVE ARDS Study. Physicians Services Incorporated Foundation (The) (PSI). PI: Ferguson N, Fan E. \$57,500 CAD. [Grants]

## Invited Lectures and Presentation

### International

- 2015 Oct 9 **Presenter.** Applicability of the ENLS Course to Resource Limited Settings: The Nepalese Experience. Neurocritical Care Society 13th Annual Meeting. Scottsdale, Arizona, United States. Presenter(s): Shrestha G.
- 2015 Oct 9 **Presenter.** Development and Initiation of a Neurocritical Care Curriculum for the Critical Care Fellowship Program in Canada. Neurocritical Care Society 13th Annual Meeting. Scottsdale, Arizona, United States. Presenter(s): McCredie V.
- 2015 Oct 3 **Invited Speaker.** The butterfly effect in critical care medicine: The earlier the merrier (and the simpler, the better). European Society of Intensive Care Medicine. Berlin, Berlin, Germany.
- 2015 Oct **Presenter.** Different ways to compare diagnostic accuracy of lung ultrasound for acute decompensated heart failure in the Emergency Department. 11th WINFOCUS World Congress. Boston, Massachusetts, United States. Presenter(s): Pivetta E.
- 2015 Oct **Presenter.** Evaluation of the Diagnostic Accuracy of a Lung Ultrasound-Implemented Approach for the Diagnosis of Acute Dyspnea in the Emergency Department: A Randomized Controlled Trial. American College of Emergency Physicians (ACEP ) Annual Meeting - Research Forum Abstracts 2015. Boston, Massachusetts, United States. Presenter(s): Pivetta E.
- 2015 Aug 16 **Invited Lecturer.** Fundamentals of Critical Care Ultrasound. Society of Critical Care Medicine (SCCM). Chicago, Illinois, United States. Invited lecture/workshop. 2015 August 15-17. (Continuing Education).
- 2015 Apr 29 **Instructor.** High Value Care: Ultrasound-guided Procedures for the Internist Pre-Course. American College of Physicians (ACP) Annual Meeting. Boston, Massachusetts, United States.

- 2015 Mar 25 **Invited Lecturer.** Use of ultrasound during the assessment of liberation from mechanical ventilation. Anesthesia Residency Program Academic Half Day Lecture Series – Università Milano Bicocca. Monza, Monza e Brianza, Italy.
- 2015 Mar **Presenter.** Respiratory muscle training during mechanical ventilation: a systematic review. 35th International Symposium on Intensive Care and Emergency Medicine. Brussels, Brussels, Belgium. Presenter(s): Goligher E.
- 2015 Feb 23 **Invited Lecturer.** Acute Care Ultrasound Workshop. Arcispedale Santa Maria Nuova – Azienda Ospedaliera di Reggio Emilia. Reggio Emilia, Italy. 2015 Feb 23-24. (Lecture/workshop).
- 2015 Feb **Course Director/Lecture.** Emergency Neurological Life Support Course (in collaboration with the Neurocritical Care Society). Department of Anesthesiology, TU Teaching Hospital. Kathmandu, Nepal. (
- 2015 Feb 23-24 **International Coordinator.** Acute Care Ultrasound Workshop. Society of Anesthesiology of Nepal and Department of Anesthesiology, TU Teaching Hospital. Kathmandu, Nepal.
- 2015 Jan 17 **Invited Lecturer.** Fundamentals of Critical Care Ultrasound. Society of Critical Care Medicine (SCCM). Phoenix, Arizona, United States. Invited lecture/workshop. 2015 Jan 17-18. (Continuing Education).

## Local

- 2015 Oct 28 **Facilitator.** CCCF. Critical Care Canada Forum 2015. Toronto, Ontario, Canada. Session on 'Plenary New Data'
- 2015 Oct 27 **Presenter.** Development and Initiation of a Neurocritical Care Curriculum for Toronto Adult Critical Care Medicine Fellowship Program in Canada. Critical Care Canada Forum 2015. Toronto, Ontario, Canada.
- 2015 Oct 26 **Facilitator.** CCCF. Critical Care Canada Forum 2015. Toronto, Ontario, Canada. Session on "3 KEY PRESSURES IN ARDS".
- 2015 Jun 5 **Invited Lecturer.** Ultrasound Outside of Regional Anesthesia - Thoracic Ultrasound. 19th Regional Anesthesia & Pain Medicine 2015. Toronto, Ontario, Canada.
- 2015 Jun 2 **Invited Lecturer.** Ultrasound and Innovation in ICU. Interdepartmental Division of Critical Care Medicine. Toronto, Ontario, Canada.
- 2015 Apr 28 **Invited Lecturer.** The Sound of Silence - Lung Ultrasound in ARDS. Critical Care Physiology Rounds. Toronto, Ontario, Canada.

## Honours and Awards

- 2015 Oct NEXT Young Lecturer Award 2015, Dept of Medicine, Faculty of Medicine, ESICM - European Society of Intensive Care Medicine
- 2015 Sep 2015 Presidential Citation, Neurocritical Care Society
- 2014 Jul - 2015 Jun Award for Individual Teaching Excellence - Toronto Western Hospital, Critical Care Medicine, Dept of Medicine, Faculty of Medicine, University of Toronto. (Postgraduate MD, Subspecialty)

**Dr. John Granton (University Health Network - TGH)**

**Peer-Reviewed Publications**

**Journal Articles**

Hambly N, **Granton JT**. Riociguat for the treatment of pulmonary hypertension. *Expert Rev Respir Med*. 2015 Dec. 2015 Dec;9(6):679-95. doi: 10.1586/17476348.2015.1106316. Epub 2015 Nov 24. **Senior Responsible Author.**

Singer LG, Chowdhury NA, Faughnan ME, **Granton JT**, Keshavjee S, Marras TK, Tullis DE, Waddell TK and Tomlinson G. Effects of Recipient Age and Diagnosis on Health-related Quality-of-Life Benefit of Lung Transplantation. *Am J Respir Crit Care Med*. 2015 Oct 15. 2015 Oct 15;192(8):965-73. doi: 10.1164/rccm.201501-0126OC. **Coauthor or Collaborator.**

Burry L, Cook D, Herridge M, Devlin JW, Fergusson D, Meade M, Steinberg M, Skrobik Y, Olafson K, Burns K, Dodek P, **Granton JT**, Ferguson N, Jacka M, Tanios M, Fowler R, Reynolds S, Keenan S, Mallick R and Mehta S. Recall of ICU Stay in Patients Managed With a Sedation Protocol or a Sedation Protocol With Daily Interruption. *Crit Care Med*. 2015 Oct. 2015 ;43(10):2180-90. doi: 10.1097/CCM.0000000000001196. **Coauthor or Collaborator.**

**Granton JT**, Langleben D, Kutryk MB, Camack N, Galipeau J, Courtman DW and Stewart DJ. Endothelial NO-Synthase Gene-Enhanced Progenitor Cell Therapy for Pulmonary Arterial Hypertension: The PHACeT Trial. *Circ Res*. 2015 Sep 11. 2015 Sep 11;117(7):645-54. doi: 10.1161/CIRCRESAHA.114.305951. Epub 2015 Jul 20. **Principal Author.**

Zhao YD, Chu L, Lin K, Granton E, Yin L, Peng J, Hsin M, Wu L, Yu A, Waddell T, Keshavjee S, **Granton JT**, de Perrot M. A Biochemical Approach to Understand the Pathogenesis of Advanced Pulmonary Arterial Hypertension: Metabolomic Profiles of Arginine, Sphingosine-1-Phosphate, and Heme of Human Lung. *PLoS One*. 2015 Aug 28. 2015 Aug 28;10(8):e0134958. doi: 10.1371/journal.pone.0134958. eCollection 2015. **Coauthor or Collaborator.**

Aversa M, Porter S, **Granton JT**. Comparative safety and tolerability of endothelin receptor antagonists in pulmonary arterial hypertension. *Drug Saf*. 2015 May. 2015 May;38(5):419-35. doi: 10.1007/s40264-015-0275-y. **Senior Responsible Author.**

Provencher S, **Granton JT**. Current treatment approaches to pulmonary arterial hypertension. *Can J Cardiol*. 2015 Apr. 2015 Apr;31(4):460-77. doi: 10.1016/j.cjca.2014.10.024. Epub 2014 Oct 24. **Senior Responsible Author.**

Nayyar D, Man HS, **Granton JT**, Lilly LB, Gupta S. Proposed management algorithm for severe hypoxemia after liver transplantation in the hepatopulmonary syndrome. *Am J Transplant*. 2015 Apr. 2015 Apr;15(4):903-13. doi: 10.1111/ajt.13177. Epub 2015 Feb 3. **Coauthor or Collaborator.**

Sadeghi S, **Granton JT**, Akhavan P, Pasarikovski CR, Roos AM, Thenganatt J, Moric , Johnson SR. Survival in rheumatoid arthritis-associated pulmonary arterial hypertension compared with idiopathic pulmonary arterial hypertension. *Respirology*. 2015 Apr. 2015 Apr;20(3):481-7. doi: 10.1111/resp.12464. Epub 2015 Jan 13. **Coauthor or Collaborator.**

Parshuram CS, Amaral AC, Ferguson ND, Baker GR, Etchells EE, Flintoft V, **Granton JT**, Lingard L, Kirpalani H, Mehta S, Moldofsky H, Scales DC, Stewart TE, Willan AR and Friedrich JO. Patient safety, resident well-being and continuity of care with different resident duty schedules in the intensive care unit: a randomized trial. *CMAJ*. 2015 Mar 17. 2015 Mar 17;187(5):321-9. doi: 10.1503/cmaj.140752. Epub 2015 Feb 9. **Coauthor or Collaborator**.

Fowler RA, Abdelmalik P, Wood G, Foster D, Gibney N, Bandrauk N, Turgeon AF, Lamontagne F, Kumar A, Zarychanski R, Green R, Bagshaw SM, Stelfox HT, Foster R, Dodek P, Shaw S, **Granton JT**, Lawless B, Hill A, Rose L, Adhikari NK, Scales DC, Cook DJ, Marshall JC, Martin C and Jovet P. Critical care capacity in Canada: results of a national cross-sectional study. *Crit Care*. 2015. 2015 Apr 1;19:133. doi: 10.1186/s13054-015-0852-6. **Coauthor or Collaborator**.

Fisher JH, Johnson S, Chau C, Kron A and **Granton JT**. Effectiveness of phosphodiesterase-5 inhibitor therapy for portopulmonary hypertension. *Can Respir J*. 2014 Dec 18. **Senior Responsible Author**.

Mehta S, Cook D, Devlin JW, Skrobik Y, Meade M, Fergusson D, Herridge M, Steinberg M, **Granton JT**, Ferguson N, Tanios M, Dodek P, Fowler R, Burns K, Jacka M, Olafson K, Mallick R, Reynolds S, Keenan S and Burry L. Prevalence, Risk Factors, and Outcomes of Delirium in Mechanically Ventilated Adults. *Crit Care Med*. 2014 Dec 9. **Coauthor or Collaborator**.

Colman R, Whittingham H, Tomlinson G and **Granton JT**. Utility of the physical examination in detecting pulmonary hypertension. A mixed methods study. *PLoS One*. 2014 Oct 24;9(10). **Senior Responsible Author**.

de Perrot M, Thenganatt J, McRae K, Moric J, Mercier O, Pierre A, Mak S and **Granton JT**. Pulmonary endarterectomy in severe chronic thromboembolic pulmonary hypertension. *J Heart Lung Transplant*. 2014 Sept 16. **Senior Responsible Author**.

Greutmann M, Rozenberg D, Le TL, Silversides CK, **Granton JT**. Recovery of respiratory gas exchange after exercise in adults with congenital heart disease. *Int J Cardiol*. 2014 Sept 20;176(2);333-9. **Senior Responsible Author**.

Skoretz SA, Yau TM, Ivanov J, **Granton JT**, Martino R. Dysphagia and Associated Risk Factors Following Extubation in Cardiovascular Surgical Patients. *Dysphagia*. 2014 Aug 15. **Coauthor or Collaborator**.

Sitbon O, Delcroix M, Bergot E, Boonstra AB, **Granton JT**, Langleben D, Subías PE, Galiè N, Pfister T, Lemarié JC, Simonneau G. EPITOME-2: An open-label study assessing the transition to a new formulation of intravenous epoprostenol in patients with pulmonary arterial hypertension. *Am Heart J*. 2014 Feb 1;167(2); 210-7. **Coauthor or Collaborator**.

St-Onge M, Mandelzweig K, Marshall JC, Scales DC, **Granton JT**. Critical care trainees' career goals and needs: A Canadian survey. *Can Respir J*. 2014 Mar 1;21(2);93-5. **Senior Responsible Author**.

Minic M, **Granton JT**, Ryan CM. Sleep disordered breathing in group 1 pulmonary arterial hypertension. *J Clin Sleep Med*. 2014 Mar 15;10(3);277-83. **Coauthor or Collaborator**.

Nayyar D, Man HS, **Granton JT**, Gupta S. Defining and characterizing severe hypoxemia after liver transplantation in hepatopulmonary syndrome. *Liver Transpl.* 2014 Feb 1:20(2);182-90. **Coauthor or Collaborator.**

Kahn SR, Houweling AH, **Granton JT**, Rudski L, Dennie C, Hirsch A. Long-term outcomes after pulmonary embolism: current knowledge and future research. *Blood Coagul Fibrinolysis.* 2014 Jan 24. **Coauthor or Collaborator.**

Katsios C, Donadini M, Meade M, Mehta S, Hall R, **Granton JT**, Kutsogiannis J, Dodek P, Heels-Ansdell D, McIntyre L, Vlahakis N, Muscedere J, Friedrich J, Fowler R, Skrobik Y, Albert M, Cox M, Klinger J, Nates J, Bersten A, Doig C, Zytaruk N, Crowther M, Cook DJ. Prediction scores do not correlate with clinically adjudicated categories of pulmonary embolism in critically ill patients. *Can Respir J.* 2014 Jan 1:21(1);36-42. **Coauthor or Collaborator.**

Zhao YD, Yun HZ, Peng J, Yin L, Chu L, Wu L, Michalek R, Liu M, Keshavjee S, Waddell T, **Granton JT**, de Perrot M. De novo synthesis of bile acids in pulmonary arterial hypertension lung. *Metabolomics.* 2014 Apr 11:10(6);1169-1175. **Coauthor or Collaborator.**

### Peer-Reviewed Fundings

- 2014 Nov – 2016 Oct **Co-Investigator.** Fluid Shifts in Pulmonary Hypertension with and without Sleep Disordered Breathing. Ontario Lung Association. PI: Clodagh R. \$99,761.62 CAD. [Grants]
- 2014 Jul - 2015 Jun **Co-Principal Investigator.** Ontario Lung Association. PI: Cypel, Marcelo. Collaborators: Granton, John, Keshavjee, Shaf, Munshi, Laveena. [Grants]
- 2013 Jul – 2016 Jun **Co-Investigator.** Measurement of exercise tolerance before surgery Heart and Stroke Foundation of Canada (HSFC). PI: Wijesundera D. Collaborator(s): Cuthbertson B, McCartney C, Mazer D, Wijesundera H, Thorpe K, Mamdani M, Brull R, Beattie S. \$144,000.00 CAD. [Grants]
- 2012 Sep - 2016 Dec Principal Applicant. RePo1. Randomized, controlled trial of sildenafil in patients with portal pulmonary hypertension. Canadian Institutes of Health Research (CIHR). PI: Granton J. Collaborator(s): Mehta S, Provencher S, Swiston J, Langleben D, Renner E, Tomlinson G, Johnson S, Lien D, Bishouty Z. \$300,000.00 CAD [Grants].
- 2012 Sept – 2015 Aug **Principal Applicant.** RePo1. Randomized, controlled trial of sildenafil in patients with portal pulmonary hypertension. Canadian Institutes of Health Research (CIHR). Collaborator(s): Mehta S, Provencher S, Swiston J, Langleben D, Renner E, Tomlinson G, Johnson S, Lien D, Bishouty Z. \$188,289.00 CAD. [Grants]
- 2012 Mar – 2016 Feb **Co-Investigator.** Measuring Exercise Tolerance for Surgery (METS). Canadian Institutes of Health Research (CIHR). PI: Wijesundera D. \$987,066.00 CAD. [Grants]



- 2012 Mar – 2014 Feb **Co-Investigator.** Cellular Immunotherapy for Septic Shock (CISS): A Phase I trial. Canadian Institutes of Health Research (CIHR). PI: McIntyre L. Collaborator(s): Duncan S, Walley K, Marshall J, Winston B, Lau M, Mei S, Courtman D, Ferguson D. \$366,812.00 CAD. [Grants]
- 2012 Jan – 2014 Dec **Principal Investigator.** Development of a Smoking Cessation Collaborative. U of T Department of Medicine. Collaborator(s): Selby P. \$71,750.00 CAD. [Grants]
- 2011 Apr – 2014 Mar **Co-Investigator.** Screening for dysphagia in patients following prolonged intubation. Canadian Institutes of Health Research (CIHR). PI: Martino R. Collaborator(s): Yeo T, Skortez S. \$212,077.00 CAD. [Grants]

### Non-Peer-Reviewed Fundings

- 2015 Apr - 2019 Mar **Principal Applicant.** Bayer Pulmonary Hypertension Grant. Bayer Canada Inc. Bayer Candada. Collaborator(s): de Perrot, Marc. \$1,000,000.00 CAD. [Industrial Grants].
- 2011 Jan - 2015 Dec **Principal Site Investigator.** AMBITION. A randomized multicenter study comparing the effect on time to clinical failure of initial combination therapy (ambrisentan and tadalafil) and initial monotherapy (ambrisentan or tadalafil) in subjects with pulmonary arterial hypertension. Glaxo Smith Kline. \$150,000.00 CAD. [Industrial Grants].
- 2010 Aug - 2015 Dec **Principal Site Investigator.** GRIPHON. Long-term, single-arm, open-label Phase 3 study, to evaluate the safety and tolerability of ACT-293987 in patients with pulmonary arterial hypertension. Actelion Pharmaceuticals Canada Inc. \$ 150,000.00 CAD. [Industrial Grants].

### Invited Lectures and Presentation

#### International

- 2015 Oct 14 **Invited Speaker.** Advanced Right Heart Failure; Case Presentation. Israel Pulmonary Hypertension Society, Tel-Aviv, Tel-Aviv, Israel.
- 2014 Nov 18 **Invited Lecturer.** American Heart Association. Molecular causes of skeletal muscle dysfunction in pulmonary hypertension. Chicago, Illinois, United States.

2014 Apr 10 **Invited Speaker.** International Society of Heart and Lung Transplantation Annual Scientific meeting. Treatment of advanced pulmonary hypertension in the ICU. San Diego, California, United States.

### **Provincial**

2014 Nov 15 **Invited Speaker.** Atlantic Respiratory Society. RV failure. When good neighbours go bad; Update in pulmonary hypertension. Halifax, Nova Scotia, Canada.

2014 Sept 10 **Visiting Professor.** Moncton University. New developments in the pathophysiology of PAH; New developments in the treatment of PAH. Moncton, New Brunswick, Canada.

2014 Apr 25 **Invited Speaker.** Canadian Respiratory Conference. Treatment of advanced pulmonary hypertension. Calgary, Alberta, Canada.

2014 Aug 4 **Invited Speaker.** Canadian Thoracic Society. Getting the right heart out of trouble. Halifax, Nova Scotia, Canada.

### **National**

2015 Apr 24 **Invited Speaker.** Update of Breathing as One Campaign and National Respiratory Research Strategy. Canadian Thoracic Society, Ottawa, Ontario, Canada. Presenter(s): Aaron, Harnecko, Granton.

2015 Apr 24 **Keynote Speaker.** Update on the Breathing as One Campaign for Lung Research - plenary session. Canadian Thoracic Society, Ottawa, Ontario, Canada. Plenary session at opening of conference to provide information to the membership, audience, re the campaign and garner support.

2015 Feb 5 **Invited Lecturer.** Advances in pulmonary arterial hypertension. Medical Grand Rounds Kingston General Hospital, Kingston, Ontario, Canada.

2015 Feb 3 **Invited Lecturer.** causes of dyspnea in pulmonary hypertension. McMaster University, Hamilton, Ontario, Canada.

2015 Jan 20 **Visiting Professor.** Management of right heart failure. University of Western Ontario, London, Ontario, Canada.

## Local

- 2015 Oct 27-28 **Invited Speaker.** Lung Transplantation for the Intensivist; Remote Monitoring; Massive PE. Canadian Critical Care Forum, Toronto, Ontario, Canada.
- 2015 Oct 27 **Invited Speaker.** Top clinical trials in Critical Care. Canadian Cardiovascular Society, Toronto, Ontario, Canada.
- 2015 Oct 2 **Invited Speaker.** Treatment of advanced pulmonary hypertension and right heart failure. CME Toronto, Toronto, Ontario, Canada.
- 2015 Mar 23 **Invited Speaker.** An approach to RVSPitis. An pragmatic approach to a patient with suspected PH. University of Toronto, Toronto, Ontario, Canada.
- 2014 Nov 28 **Invited Lecturer.** New therapeutic advances in pulmonary hypertension Toronto, Ontario, Canada.
- 2014 Oct 29 **Invited Speaker.** Canadian Critical Care Forum. Remote physiological monitoring; Nitric oxide in critical care- cellular effects; Massive pulmonary embolism. Toronto, Ontario, Canada.
- 2014 Oct 3 **Invited Speaker.** University of Toronto. Management of right heart failure. Toronto, Ontario, Canada.
- 2014 Jun 4 **Invited Speaker.** 3 Annual RV symposium. When good neighbors go bad - challenges of group II PH. Toronto, Ontario, Canada.
- 2014 May 24 **Invited Speaker.** Hypertension/renal disease and cardiac failure symposium. Pulmonary hypertension from ERAs to Soluble guanylate cyclase agonists. Toronto, Ontario, Canada.
- 2014 May 7 **Invited Speaker.** Evolutions Conference. Canadian Association of Critical Care Nurses Massive Pulmonary Embolism. Toronto, Ontario, Canada.

**Dr. Laura Hawryluck (University Health Network – TWH)**

**Peer-Reviewed Publications**

**Journal Articles**

**Hawryluck L.** The Critical Care Perspective in Reply to Last Rights: Cuthbertson v. Rasouli—What the Supreme Court Didn't Say about End-of-Life Treatment Decisions. *Health Law in Canada*. 2015 Nov; Volume 36 #2. **Principal Author.**

Aryal D, Acharya SP, Shrestha GS, Goffi A, **Hawryluck L.** Nepal after the disaster. Insider points of view for the future of critical care medicine. *Am J Respir Crit Care Medicine*. 2015 Oct; Oct 1; 192(7): 781-4. **Senior Responsible Author.**

Sprung CL, **Hawryluck L**, De Robertis E, Joynt GM, McDermid RC, Avidan A. Reply: Worldwide End-of-Life Practice for Patients in Intensive Care Units Study: Adding Africa. *Am J Respir Crit Care Medicine*. 2015 Sep; Sep 15; 192(6): 769-70. **Coauthor or Collaborator.**

Beckett A, Fowler R, Adhikari NK, **Hawryluck L**, Razek T, Tien H. Medical mentorship in Afghanistan: How are military mentors perceived by Afghan health care providers? *Can J Surgery*. 2015 Jun; Jun 58(Suppl 3) S98-103. **Coauthor or Collaborator.**

Knaack J, McVey M, Bazerbachi F, Marquez M, Golderacena N, Selzner N, Cattral M, GreigP, McGilvray I, Gary L, Ghanekar A, Renner E, Grant D, **Hawryluck L**, Selzner M. Liver Transplantation in Patients with Endstage Liver Disease Requiring ICU Admission and Intubation. *Liver Transplantation*. 2015. *Liver Transpl*. 2015 Jun; 21(6):761-7. doi: 10.1002/lt.24115. Epub 2015 Apr 23. **Coauthor or Collaborator.**

Sprung CL, Truog RD, Curtis JR, Joynt GM, Baras M, Michalsen A, Briegel J, Kesecioglu J, Efferen L, De Robertis E, Bulpa P, Metnitz P, Patil N, **Hawryluck L**, Manthous C, Moreno R, Leonard S, Hill NS, Wennberg E, McDermid RC, Mikstacki A, Mularski RA, Hartog CS, Avidan A. Seeking worldwide professional consensus on the principles of end-of-life care for the critically ill. The Consensus for Worldwide End-of-Life Practice for Patients in Intensive Care Units (WELPICUS) study. *Am J resp Crit Care Med*. 2014 Oct 15. **Coauthor or Collaborator.**

**Hawryluck L**, Baker AJ, Singh JM. The future of Decision-Making after Rasouli. *CJA*. 2014 Oct. **Principal Author.**

Sibbald R, Chidwick P, **Hawryluck L.** Standard of care and resource implications of the Cuthbertson v. Rasouli ruling. *CMAJ*. 2014 Mar 18. **Senior Responsible Author.**

Knaack J, McVey M, Bazerbachi F, Marquez M, Golderacena N, Selzner N, Cattral M, GreigP, McGilvray I, Gary L, Ghanekar A, Renner E, GrantD, **Hawryluck L**, Selzner M. Liver Transplantation in Patients with Endstage Liver Disease Requiring ICU Admission and Intubation. *Liver Transplantation*. 2014. **Coauthor or Collaborator.**

## Book

Faith A, **Hawryluck L** (Editors) - being written on contract with Carswell. Acute Care Law.2014.

## Commentaries

Katherine Korte, Caprara J, Jarvis D, **Hawryluck L** .LST Submission on CPSO Medical Marijuana policy. 2014 Nov. **Senior Responsible Author.**

## Policy (draft)

Hawryluck L, Chappain S, Parajuli R, Deo S. Draft Code of Ethics and Professionalism for Nepal Medical Council --WHO proposal for stakeholders and medical and professional education. Nepal. 2014 Sept. **Principal Author.**

## Online Resource

**Hawryluck L**, Acharya SP, Shrestha GS. Critical Care Medicine in Nepal: Before and after the massive earthquake and its aftershocks. World Federation of Critical Care; 2015 Jun. **Principal Author.**

## Invited Lectures and Presentation

### International

- 2015 May 1                    **Keynote Speaker.** Critical care in Nepal. Interviewer: Society of Critical Care Medicine. SCCM Pod-272. United States.
- 2014 Nov                    **Distinguished Speaker.** Ethic Chair Nepal Medical Council Importance of a Code of Ethics and professional Conduct Presentation to the new President of the Nepal Medical Council and the new Registrar of the importance of a Code of Ethics for the country, the content of the draft Code, the proposed roll-out/methods of ensuring stakeholder input and WHO (draft proposal).
- 2014 Sept 13                **Distinguished Speaker.** Grande Hospital. Resuscitation simulations Discussion of early goal directed therapy in septic shock using simulated cases.
- 2014 Sept                    **Distinguished Speaker.** Ethic Chair Nepal Medical Council Importance of a Code of Ethics and professional Conduct Presentation to the President of the Nepal Medical Council and Council of the importance of a Code of Ethics for the country, the content of the draft Code, the proposed roll-out/methods of ensuring stakeholder input and WHO (draft proposal).

## Local

- 2015 Nov 12 **Distinguished Speaker.** Decreasing variability in EOL decision-making. UHN CCRT, Ontario, Canada.
- 2015 Nov 12 **Facilitator.** Decreasing variability in EOL decision-making. UHN CCRT, Ontario, Canada.
- 2015 Nov 3 **Keynote Speaker.** The new CPSO policies: implications for practice. TWH CCRT, Ontario, Canada.
- 2015 Sep **Keynote Speaker.** Update on Nepal after the disaster. Jason Wong/ price Waterhouse Cooper, Ontario, Canada.
- 2015 May **Keynote Speaker.** Disaster Care Boxes: how to help Nepal after the earthquake. Jason Wong/ price Waterhouse Cooper, Ontario, Canada.
- 2015 Jun 24 **Chair.** Improving process and policy in EOL care. OHA, Toronto, Ontario, Canada. Presenter(s): Chidwick P, Sibbald R.
- 2015 Jun 24 **Distinguished Speaker.** Improving process and policy in EOL care. OHA, Toronto, Ontario, Canada. Presenter(s): Chidwick P, Sibbald R.
- 2015 Jun 24 **Distinguished Speaker.** Best practices in managing risk in the ICU. The Osgoode Certificate in Clinical Risk, Negligence and Claims Management in Health Care, Ontario, Canada.
- 2014 Nov **Invited Speaker.** Medico-Legal Society of Toronto. Co-Panelist on interactive seminar on implications of medical marijuana in clinical and legal practice Medical Marijuana in acute care. Toronto, Ontario, Canada.
- 2014 Mar **Distinguished Speaker.** OHA. Improving process and policy in EOL care. Toronto, Ontario, Canada.
- 2014 Feb **Distinguished Speaker.** Osgoode Law School. Decision-making algorithm in EOL care and risk reduction. Toronto, Ontario, Canada.

**Dr. Margaret Herridge (University Health Network – TGH)**

**Peer-Reviewed Publications**

**Journal Articles**

Goligher EC, Fan E, **Herridge MS**, Murray A, Vorona S, Brace D, Rittayamai N, Lanys A, Tomlinson G, Singh JM, Bolz SS, Rubenfeld GD, Kavanagh BP, Brochard LJ, Ferguson ND. Evolution of Diaphragm Thickness during Mechanical Ventilation. Impact of Inspiratory Effort. *Am J Respir Crit Care Med*. 2015 Nov;192(9):1080-8. **Coauthor or Collaborator.**

Choong K, Al-Harbi S, Siu K, Wong K, Cheng J, Baird B, Pogorzelski D, Timmons B, Gorter JW, Thabane L, Khetani M; Canadian Critical Care Trials Group. Functional recovery following critical illness in children: the “wee-cover” pilot study. *Pediatr Crit Care Med*. 2014. 2015 Oct;16(4):310-8. **Coauthor or Collaborator.**

Wald R, Adhikari NK, Smith OM, Weir MA, Pope K, Cohen A, Thorpe K, McIntyre L, Lamontagne F, Soth M, **Herridge MS**, Lapinsky S, Clark E, Garg AX, Hiremath S, Klein D, Mazer CD, Richardson RM, Wilcox ME, Friedrich JO, Burns KE, Bagshaw SM; Canadian Critical Care Trials Group. Comparison of standard and accelerated initiation of renal replacement therapy in acute kidney injury. *Kidney Int*. 2015. 2015 Oct;88(4):897-904. **Coauthor or Collaborator.**

Burry L, Dodek P, Tanios M, Fergusson D, Steinberg M, Mallick R, Ferguson N, Burns K, Devlin J, Jacka M, Olafson K, Keenan S, Reynolds S, **Herridge MS**, Cook D, Meade M, Fowler R, Skrobik Y, Granton J, Mehta S. Recall of ICU stay in patients managed with a sedation protocol or a sedation protocol with daily interruption. *Critical Care Medicine*. 2015 May 16. In Press. **Coauthor or Collaborator.**

Timsit JF, Perner A, Bakker J, Bassetti M, Benoit D, Cecconi M, Curtis JR, Doig GS, **Herridge MS**, Jaber S, Joannidis M, Papazian L, Peters MJ, Singer P, Smith M, Soares M, Torres A, Vieillard-Baron A, Citerio G and Azoulay E. Year in review in Intensive Care Medicine 2014: III. Severe infections, septic shock, healthcare-associated infections, highly resistant bacteria, invasive fungal infections, severe viral infections, Ebola virus disease and paediatrics. *Intensive Care Med*. 2015 Apr. 2015 Apr;41(4):575-88. doi: 10.1007/s00134-015-3755-8. Epub 2015 Mar 26. **Coauthor or Collaborator.**

Czerwonka AI, **Herridge MS**, Chan L, Chu LM, Matte A and Cameron JI. Changing support needs of survivors of complex critical illness and their family caregivers across the care continuum: a qualitative pilot study of Towards RECOVER. *J Crit Care*. 2015 Apr. 2015 Apr;30(2):242-9. doi: 10.1016/j.jcrc.2014.10.017. Epub 2014 Oct 30. **Coauthor or Collaborator.**

Timsit JF, Perner A, Bakker J, Bassetti M, Benoit D, Cecconi M, Curtis JR, Doig GS, **Herridge MS**, Jaber S, Joannidis M, Papazian L, Peters MJ, Singer P, Smith M, Soares M, Torres A, Vieillard-Baron A, Citerio G and Azoulay E. Year in review in Intensive Care Medicine 2014: III. Severe infections, septic shock, healthcare-associated infections, highly resistant bacteria, invasive fungal infections, severe viral infections, Ebola virus disease and paediatrics. *Intensive Care Med*. 2015 Apr. 2015 Apr;41(4):575-88. doi: 10.1007/s00134-015-3755-8. Epub 2015 Mar 26. **Coauthor or Collaborator.**

Mehta S, Cook D, Devlin JW, Skrobik Y, Meade M, Fergusson D, **Herridge MS**, Steinberg M, Granton J, Ferguson N, Tanios M, Dodek P, Fowler R, Burns K, Jacka M, Olafson K, Mallick R, Reynolds S, Keenan S and Burry L. Prevalence, risk factors, and outcomes of delirium in mechanically ventilated adults. *Crit Care Med*. 2015 Mar. 2015 Mar;43(3):557-66. doi: 10.1097/CCM.0000000000000727. **Coauthor or Collaborator**.

Perner A, Citerio G, Bakker J, Bassetti M, Benoit D, Cecconi M, Curtis JR, Doig GS, **Herridge MS**, Jaber S, Joannidis M, Papazian L, Peters MJ, Singer P, Smith M, Soares M, Torres A, Vieillard-Baron A, Timsit JF and Azoulay E. Year in review in Intensive Care Medicine 2014: II. ARDS, airway management, ventilation, adjuvants in sepsis, hepatic failure, symptoms assessment and management, palliative care and support for families, prognostication, organ donation, outcome, organisation and research methodology. *Intensive Care Med*. 2015 Mar. 2015 Mar;41(3):389-401. doi: 10.1007/s00134-015-3707-3. Epub 2015 Feb 25. **Coauthor or Collaborator**.

Bein T, Weber-Carstens S and **Herridge MS**. Extracorporeal life support, ethics, and questions at the bedside: how does the end of the pathway look? *Intensive Care Med*. 2015 Feb 25. 2015 Feb 25. **Senior Responsible Author**.

Lim W, Meade M, Lauzier F, Zarychanski R, Mehta S, Lamontagne F, Dodek P, McIntyre L, Hall R, Heels-Ansdell D, Fowler R, Pai M, Guyatt G, Crowther MA, Warkentin TE, Devereaux PJ, Walter SD, Muscedere J, **Herridge MS**, Turgeon AF, Geerts W, Finfer S, Jacka M, Berwanger O, Ostermann M, Qushmaq I, Friedrich JO and Cook DJ. Failure of anticoagulant thromboprophylaxis: risk factors in medical-surgical critically ill patients\*. *Crit Care Med*. 2015 Feb. 2015 Feb;43(2):401-10. doi: 10.1097/CCM.0000000000000713. **Coauthor or Collaborator**.

Walsh CJ, Batt J, **Herridge MS**, Dos Santos CC. Muscle wasting and early mobilization in acute respiratory distress syndrome. *Clin Chest Med*. 2014 Dec;35(4):811-26. 2014;35(4):811-26. **Coauthor or Collaborator**. Czerwonka AI, Herridge MS, Chan L, Chu LM, Matte A, Cameron JI. Changing support needs of survivors of complex critical illness and their family caregivers across the care continuum: A qualitative pilot study of Towards RECOVER. *J Crit Care*. 2014;30(2):242-9. **Coauthor or Collaborator**.

Fowler RA, Mittmann N, Geerts W, Heels-Ansdell D, Gould MK, Guyatt G, Krahn M, Finfer S, Pinto R, Chan B, Ormanidhi O, Arabi Y, Qushmaq I, Rocha MG, Dodek P, McIntyre L, Hall R, Ferguson ND, Mehta S, Marshall JC, Doig CJ, Muscedere J, Jacka MJ, Klinger JR, Vlahakis N, Orford N, Seppelt I, Skrobik YK, Sud S, Cade JF, Cooper J, Cook D; Canadian Critical Care Trials Group; Australia and New Zealand Intensive Care Society Clinical Trials Group. Costeffectiveness of dalteparin vs unfractionated heparin for the prevention of venous thromboembolism in critically ill patients. *JAMA*. 2014 Nov 26;312(20):2135-45. 2014;312(20):2135-45. Acknowledged in Publication (**Not Author**).

Gustot T, Felleiter P, Pickkers P, Sakr Y, Rello J, Velissaris D, Pierrakos C, Taccone FS, Sevcik P, Moreno C, Vincent JL; EPIC II Group of Investigators. Impact of infection on the prognosis of critically ill cirrhotic patients: results from a large worldwide study. *Liver Int*. 2014 Nov;34(10):1496-503. 2014;34(10):1496-503. **Coauthor or Collaborator**.

De Waele J, Lipman J, Sakr Y, Marshall JC, Vanhems P, Barrera Groba C, Leone M, Vincent JL; EPIC II Investigators. Abdominal infections in the intensive care unit: characteristics, treatment and determinants of outcome. *BMC Infect Dis*. 2014 Jul 29;14:420. 2014;14(420-). **Coauthor or Collaborator**.



Choong K, Foster G, Fraser DD, Hutchison JS, Joffe AR, Jouvett PA, Menon K, Pullenayegum E, Ward RE; Canadian Critical Care Trials Group. Acute rehabilitation practices in critically ill children: a multicenter study. *Pediatr Crit Care Med*. 2014 Jul;15(6):e270-9. 2014;15(6):270-9. **Coauthor or Collaborator**.

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Timsit JF, Citerio G, Bakker J, Bassetti M, Benoit D, Cecconi M, Curtis JR, Hernandez G, **Herridge MS**, Jaber S, Joannidis M, Papazian L, Peters M, Singer P, Smith M, Soares M, Torres A, Vieillard-Baron A, Azoulay E. Year in review in Intensive Care Medicine 2013: III. Sepsis, infections, respiratory diseases, pediatrics. *Intensive Care Med*. 2014 Apr;40(4):471-83. 2014;40(4):471-83. **Coauthor or Collaborator**.

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Fan E, Dowdy DW, Colantuoni E, Mendez-Tellez PA, Sevransky JE, Shanholtz C, Himmelfarb CRD, Desai SV, Ciesla N, **Herridge MS**, Pronovost PJ, Needham DM. Physical complications in acute lung injury survivors: a 2-year longitudinal prospective study. *Crit Care Med*. 2014;42(4):849-859. **Coauthor or Collaborator**.

**Herridge MS**, Batt J, Santos CD. ICU-acquired weakness, morbidity, and death. *Am J Respir Crit Care Med*. 2014;190(4):360-2. **Principal Author**.

Lim W, Meade M, Lauzier F, Zarychanski R, Mehta S, Lamontagne F, Dodek P, McIntyre L, Hall R, Heels-Ansdell D, Fowler R, Pai M, Guyatt G, Crowther MA, Warkentin TE, Devereaux PJ, Walter SD, Muscedere J, **Herridge MS**, Turgeon AF, Geerts W, Finfer S, Jacka M, Berwanger O, Ostermann M, Qushmaq I, Friedrich JO, Cook DJ; PROphylaxis for ThromboEmbolism in Critical Care Trial Investigators. Failure of anticoagulant thromboprophylaxis: risk factors in medical-surgical critically ill patients. *Crit Care Med*. 2014;43(2):401-10. **Coauthor or Collaborator**.

Mehta S, Cook D, Devlin JW, Skrobik Y, Meade M, Fergusson D, **Herridge MS**, Steinberg M, Granton J, Ferguson N, Tanios M, Dodek P, Fowler R, Burns K, Jacka M, Olafson K, Mallick R, Reynolds S, Keenan S, Burry L; SLEAP Investigators and the Canadian Critical Care Trials Group.

Crit Care Med. 2015 Mar;43(3):557-66. Prevalence, risk factors, and outcomes of delirium in mechanically ventilated adults. Crit Care Med. 2014;43(3):557-66. **Coauthor or Collaborator.**

Fan E, Cheek F, Chlan L, Gosselink R, Hart N, **Herridge MS**, Hopkins RO, Hough CL, Kress JP, Latronico N, Moss M, Needham DM, Rich MM, Stevens RD, Wilson KC, Winkelman C, Zochodne DW, Ali NA; ATS Committee on ICU-acquired Weakness in Adults; American Thoracic Society. An official American Thoracic Society Clinical Practice guideline: the diagnosis of intensive care unit-acquired weakness in adults. Am J Respir Crit Care Med. 2014;190(12):1437-46. **Coauthor or Collaborator.**

Citerio G, Bakker J, Bassetti M, Benoit D, Cecconi M, Curtis JR, Doig GS, **Herridge MS**, Jaber S, Joannidis M, Papazian L, Perner A, Peters MJ, Singer P, Smith M, Soares M, Torres A, Vieillard-Baron A, Timsit JF, Azoulay E. Year in review in Intensive Care Medicine 2014: I. Cardiac dysfunction and cardiac arrest, ultrasound, neurocritical care, ICU-acquired weakness, nutrition, acute kidney injury, and miscellaneous. Intensive Care Med. 2014;41(2):179-91. **Coauthor or Collaborator.**

Bein T, Weber-Carstens S, **Herridge MS**. Extracorporeal life support, ethics, and questions at the bedside: how does the end of the pathway look? Intensive Care Med. 2014. **Senior Responsible Author.**

Perner A, Citerio G, Bakker J, Bassetti M, Benoit D, Cecconi M, Curtis JR, Doig GS, **Herridge MS**, Jaber S, Joannidis M, Papazian L, Peters MJ, Singer P, Smith M, Soares M, Torres A, Vieillard-Baron A, Timsit JF, Azoulay E. Year in review in Intensive Care Medicine 2014: II. ARDS, airway management, ventilation, adjuvants in sepsis, hepatic failure, symptoms assessment and management, palliative care and support for families, prognostication, organ donation, outcome, organisation and research methodology. Intensive Care Med. 2014;41(3):389-401. **Coauthor or Collaborator.**

**Herridge MS**, Chu LM, Matte AL, Tomlinson G, Chan L, Thomas C, Friedrich JO, Mehta S, Lamontagne F, Levasseur M, Ferguson N, Adhikari N, Rudkowski JC, Meggison H, Skrobik Y, Flannery J, Bayley M, Batt J, dos Santos C, Abbey SE, Tan A, Lo V, Mathur S, Parotto M, Flockhart L, Fan E, Lee CM, Wilcox ME, Ayas N, Choong K, Fowler R, Rubenfeld GD, Scales DC, Sinuff T, Cuthbertson BH, Rose L, Robles P, Burns B, Cypel M, Singer L, Chaparro C, Chow CW, Keshavjee S, Brochard L, Hebert P, Slutsky AS, Marshall J, Cook D, Cameron JI for the the RECOVER Program Investigators (Phase 1: towards RECOVER) and the Canadian Critical Care Trials Group. The RECOVER Program: One-Year Disability in Critically Ill Patients Mechanically Ventilated for 7 Days. Under revision at NEJM. New England Journal of Medicine. 2014. **Principal Author.**

Cameron JI, Chu LM, Matte AL, Tomlinson G, Chan L, Thomas C, Friedrich JO, Mehta S, Lamontagne F, Levasseur M, Ferguson N, Adhikari N, Rudkowski JC, Meggison H, Skrobik Y, Flannery J, Bayley M, Batt J, dos Santos C, Abbey SE, Tan A, Lo V, Mathur S, Parotto M, Flockhart L, Fan E, Lee CM, Wilcox ME, Ayas N, Choong K, Fowler R, Rubenfeld GD, Scales DC, Sinuff T, Cuthbertson BH, Rose L, Robles P, Burns B, Cypel M, Singer L, Chaparro C, Chow CW, Keshavjee S, Brochard L, Hebert P, Slutsky AS, Marshall J, Cook D, **Herridge MS** for the the RECOVER Program Investigators (Phase 1: towards RECOVER) and the Canadian Critical Care Trials Group. One-Year Outcomes in Caregivers of Critically Ill Patients Mechanically Ventilated for 7 Days. Under revision at NEJM. New England Journal of Medicine. 2014. **Senior Responsible Author.**

dos Santos C, Hussain SNA, Mathur S, Picard M, **Herridge MS**, Correa J, Bain A, Guo Y, Tomlinson G, Advani A, Cameron J, Schols A, Gosker H, Katzberg H, J Batt for the MEND ICU group, the RECOVER Program investigators and the Canadian Critical Care Translational Biology Group. MEND ICU: Muscle Injury and Repair in Critical Illness Survivors Mechanically Ventilated >7 Days. New England Journal of Medicine. 2014. **Coauthor or Collaborator**.

### Peer-Reviewed Fundings

- 2015 Jul - 2018 Jul **Principal Investigator**. The RECOVER Program: An International Model of Post-ICU care for patients and caregivers. Department of Medicine Challenge Grant. \$200,000.00 CAD. [Grants]
- 2015 Mar - 2016 Feb **Co-Investigator**. E---CYCLE Pilot:A Pilot Randomized Study of Early Cycle Ergometry versus Routine Physiotherapy in Elderly Mechanically Ventilated Patients. TVN. \$99,988.00 CAD. [Grants]
- 2014 Oct - 2018 Sep **Co-Investigator**. Mechanisms of Impaired Skeletal Muscle Growth in Intensive Care Unit Acquired Weakness (ICUAW). Canadian Institutes of Health Research (CIHR). Circulatory and Respiratory HealthPI: Batt J. Collaborator(s): Dos Santos C, Mathur S. . \$409,200.00 CAD. [Grants]
- 2014 Oct - 2015 Sep **Co-Investigator**. Structuring Patient-Oriented Research: Developing a National Agenda in Patient Care Research and Evaluation. Canadian Institutes of Health Research (CIHR). Circulatory and Respiratory Health. Planning and Dissemination Grant– Institute Community Support. PI: Hebert P. Collaborator(s): Bagshaw S, Dodek P, Lamontagne F, Martin C, Muscedera J, Scales D, Stelfox H, Turgeon A, Herridge M. \$25,000.00 CAD. [Grants]
- 2014 Sep - 2019 Aug **Co-Investigator**. The Canadian Critical Care Trials Group. Canadian Institutes of Health Research (CIHR). The Canadian Critical Care Trials Group. PI: Herbert P. Collaborator(s): Burns K, Turgeon A, Sinuff T, Seeley A. \$1,500,000.00. CAD. [Grants]
- 2014 Sep - 2016 Sep **Collaborator**. Functional Recovery in Critically ill Children: the “Wee-cover” Multicentre Study. Canadian Institutes of Health Research (CIHR).PI: Choong K. Collaborator(s): Al-Harbi S, Cameron J, Fayed N, Fraser D, Willem G, Herridge M, Hutchinson J, Khetan M, Menon K, Tamopolsky M, Thabane L. \$170,502.00 CAD. [Grants].
- 2013 Sep - 2014 Sep **Co-Investigator**. Clinical outcomes and predictors of PITuitary disorders in patients with moderate and severe Traumatic Brain Injury: the PIT-TBI prospective multicenter pilot cohort study. Canadian Institutes of Health Research (CIHR). \$159,000.00 CAD. [Grants]

- 2013 Jul - 2014 Jun **Co-Investigator.** TryCYCLE (Critical Care Cycling to Improve Lower Extremity Strength): A Single-Center, Prospective Pilot Study of the Safety and Feasibility of Early Rehabilitation using Cycle Ergometry in Mechanically Ventilated Patients. Canadian Institutes of Health Research (CIHR). \$99,000.00 CAD. [Clinical Trials]
- 2013 Jul - 2014 Jun **Co-Investigator.** Functional Recovery in Critically Ill Children: The “Wee-Cover” Longitudinal Cohort Study. HAHSO Innovation Grant competition, HAHSO Innovation Grant competition. \$ 198,000.00 CAD. [Clinical Trials]
- 2013 Jul - 2014 Jun **Co-Investigator.** COGWELL: Cognitive Outcomes and Wellness in Survivors of Critical Illness. Physicians Services Incorporated Foundation (PSI). \$139,000.00 CAD [Clinical Trials]
- 2013 Jan - 2015 Jan **Co-Investigator.** Towards RECOVER: Interdisciplinary and molecular characterization of functional disability after critical illness and development of a family-centred rehabilitation program. Alternate Funding Plan. PI: Cameron J. \$198,00.00. [Grants]
- 2012 Jul - 2014 Jun **Co-Principal Investigator.** Towards RECOVER: Interdisciplinary and molecular characterization of functional disability after critical illness and development of a familycentred rehabilitation program. AFP Innovation Fund, AFP Innovation Fund. \$196,000.00 CAD. [Clinical Trials]

### **Non Peer Reviewed Fundings**

- 2014 Jul - 2015 Jun **Principal Investigator.** RECOVER Rehabilitation Program for Survivors of Complex Critical Illness and their Family Caregivers. The Luck Family Fund. \$16,000.00 CAD. [Donations]
- 2014 Jul - 2015 Jun **Principal Investigator.** RECOVER Rehabilitation Program for Survivors of Critical Illness and their Family Caregivers. The Jason Tham and Andrea Chan Family. \$2,000.00 CAD. [Donations]
- 2013 Dec - 2015 Nov **Co-Principal Investigator.** RECOVER Program for Survivors of Complex Critical Illness and their Family Caregivers. \$250,000.00 CAD. [Donations]

## Invited Lectures and Presentation

### International

- 2015 Oct **Invited Speaker.** ICU Acquired Weakness: State of the Art. European Society of Intensive Care Medicine. Berlin, Germany.
- 2015 Oct **Invited Speaker.** Cognitive Impairment: Cause or Consequence of Delirium. European Society of Intensive Care Medicine. Berlin, Germany.
- 2015 May **Invited Speaker.** RECOVER Program. American Thoracic Society. Denver, United States.
- 2014 Oct 1 **Keynote Speaker.** ICU Acquired Weakness: Clinical Phenotypes and Determinants, ESICM. Barcelona, Spain.
- 2014 Sep 30 **Invited Lecturer.** My favorite 3 papers, ESICM. Barcelona, Spain.
- 2014 Sep 29 **Chair.** ICU -Environment: Lessons learned from building a new ICU, ESICM. Barcelona, Spain.
- 2014 Apr 10-11 **Invited Lecturer.** Rehabilitation After ICU Discharge; Muscle Weakness in The Critically Ill Patient; Early Mobilization of The Critically ill Patient. V International Brazilian Symposium of Intensive Care (V SIMI). São Paulo, Brazil.
- 2014 Apr 10 **Invited Speaker.** Long Term Follow Up of ICU Survivors. V International Brazilian Symposium of Intensive Care (V SIMI). São Paulo, Brazil.

### Local

- 2015 Nov **Distinguished Speaker.** Patient- and Family-Centred Follow-up Care after critical illness: Reflections on almost 20 Years of ICU Outcomes Work. FM Hill Lectureship. Ontario, Canada.
- 2015 Oct **Chair.** Interprofessional Processes of Care. Critical Care Canada Forum. Ontario, Canada.
- 2015 Oct **Invited Speaker.** Morbidity after ICU-A Complex Matrix. Canada Critical care Forum. Ontario, Canada.
- 2015 Oct **Invited Lecturer.** ICU Practice Changes-Long-term Impact. Critical Care Canada Forum. Ontario, Canada.
- 2015 Oct **Invited Lecturer.** Towards Recover- Patient and Caregiver Outcomes. Critical Care Canada Forum. Ontario, Canada.
- 2015 Oct **Distinguished Speaker.** Optimizing Patient and Caregiver Outcomes after Critical illness: Moving Forward with the RECOVER Program. FM Hill Lectureship. Ontario, Canada.

- 2015 Mar **Keynote Speaker.** RECOVER Program: Long-term Outcomes in Survivors of Complex Critical illness and their Family Caregivers. Ontario Thoracic Society. Ontario, Canada.
- 2015 Mar **Keynote Speaker.** Outcomes after Complex Critical Illness: Results from the RECOVER Program. University of Toronto Trauma Program. Ontario, Canada.
- 2015 Mar **Keynote Speaker.** Realistic Outcomes following critical illness. Ontario Hospital Association and Critical Care Secretariat of Ontario. Ontario, Canada.
- 2015 Feb 1 **Distinguished Speaker.** The RECOVER Program: Long-term Outcomes in Survivors of Complex Critical Illness and their family caregivers. Better Breathing/Ontario Thoracic Society. Toronto, Ontario, Canada.
- 2014 Nov 1 **Chair.** Clinical Research - From Individuals to Networks, Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 30 **Invited Lecturer.** ICU Acquired Weakness, Critical Care Canada Forum. Toronto, Canada. ICU Weakness - Phenotype, Function and Outcome.
- 2014 Oct 30 **Chair.** Long -Term Outcomes, Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 30 **Distinguished Speaker.** Plenary RCT, Critical Care Canada Forum. Toronto, Ontario, Canada.
- 2014 Oct 30 **Distinguished Speaker.** Fatigue, Restraints, and Mental Health, Critical Care Canada Forum. Toronto, Canada. Mental Health in Patients and Families. Toronto, Ontario, Canada.
- 2014 May 7 **Invited Lecturer.** Long -term outcomes in patients after prolonged mechanical ventilation and their family caregivers: The RECOVER Program, Evolutions In Critical Care 2014. Toronto, Ontario, Canada.

**Dr. Stephen Lapinsky (University Health Network – MSH)**

**Peer-Reviewed Publications**

**Journal Articles**

Clark E, Kumar A, Langote A, **Lapinsky SE**, Dodek P, Kramer A, Wood G, Bagshaw SM, Wood K, Gurka D, Sood MM; Cooperative Antimicrobial Therapy of Septic Shock Database Research Group. Septic shock in chronic dialysis patients: clinical characteristics, antimicrobial therapy and mortality. *Intensive Care Med.* 2015 Nov 25. **Coauthor or Collaborator.**

Rewa O, Wald R, Adhikari NK, Hladunewich M, **Lapinsky SE**, Muscedere J, Bagshaw SM, Smith OM, Lebovic G, Kuint R, Klein DJ. Whole-blood neutrophil gelatinase-associated lipocalin to predict adverse events in acute kidney injury: A prospective observational cohort study. *J Crit Care.* 2015 Sep 1. **Coauthor or Collaborator.**

Wald R, Adhikari NK, Smith OM, Weir MA, Pope K, Cohen A, Thorpe K, McIntyre L, Lamontagne F, Soth M, Herridge M, **Lapinsky SE**, Clark E, Garg AX, Hiremath S, Klein D, Mazer CD, Richardson RM, Wilcox ME, Friedrich JO, Burns KE, Bagshaw SM. Comparison of standard and accelerated initiation of renal replacement therapy in acute kidney injury. *Kidney Int.* 2015 Jul 8. **Coauthor or Collaborator.**

**Lapinsky SE.** Endotracheal intubation in the ICU. *Crit Care.* 2015 Jun 17;19:258. **Principal Author.**

Mehta S, Cook D, Devlin JW, Skrobik Y, Meade M, Fergusson D, Herridge M, Steinberg M, Granton J, Ferguson N, Tanios M, Dodek P, Fowler R, Burns K, Jacka M, Olafson K, Mallick R, Reynolds S, Keenan S, Burry L; SLEAP Investigators; Canadian Critical Care Trials Group. Prevalence, risk factors, and outcomes of delirium in mechanically ventilated adults. *Crit Care Med.* 2015 Mar;43(3):557-66. **Coauthor or Collaborator.**

Popovici I, Morita PP, Doran D, **Lapinsky SE**, Morra D, Shier A, Wu R, Cafazzo JA. Technological aspects of hospital communication challenges: an observational study. *Int J Qual Health Care.* 2015; 27:183-188. **Coauthor or Collaborator.**

**Lapinsky SE**, Rojas-Suarez JA, Crozier TM, Vasquez DN, Barrett N, Austin K, Plotnikow GA, Orellano K, Bourjeily G. Mechanical ventilation in pregnancy: a case series. *Int J Obstet Anesth* 2015; 24:323-328. **Principal Author.**

**Lapinsky SE.** Acute respiratory failure in pregnancy. *Obstetric Medicine* 2015. **Principal Author.**

Jeejeebhoy FM, Zelop CM, Lipman S, Carvalho B, Joglar J, Mhyre JM, Katz VL, **Lapinsky SE**, Einav S, Warnes CA, Page RL, Griffin RE, Jain A, Dainty KN, Arafeh J, Windrim R, Koren G, Callaway CW. Cardiac Arrest in Pregnancy: A Scientific Statement From the American Heart Association. *Circulation*, 2015. **Coauthor or Collaborator.**

Silversides JA, Pinto R, Kuint R, Wald R, Hladunewich MA, **Lapinsky SE**, Adhikari N. Fluid balance, intradialytic hypotension, and outcomes in critically ill patients undergoing renal replacement therapy: a cohort study. *Crit Care*. 2014 Nov 18;16(6):624. **Coauthor or Collaborator**.

Waechter J, Kumar A, **Lapinsky SE**, Marshall J, Dodek P, Arabi Y, Parrillo JE, Dellinger RP, Garland A; for the Cooperative Antimicrobial Therapy of Septic Shock Database Research Group. Interaction Between Fluids and Vasoactive Agents on Mortality in Septic Shock: A Multicenter, Observational Study. *Crit Care Med*. 2014 Aug. **Coauthor or Collaborator**.

Little A, Tung D, Truong C, **Lapinsky SE**, Burry L. Colchicine overdose with coingestion of nonsteroidal antiinflammatory drugs. *CJEM*. 2014 May;16(3);252-6. **Coauthor or Collaborator**.

Aoyama K, Seaward PG, **Lapinsky SE**. Fetal outcome in the critically ill pregnant woman. *Crit Care*. 2014 May;18;307. **Senior Responsible Author**.

Beck V, Chateau D, Bryson GL, Pisipati A, Zanotti S, Parrillo JE, Kumar A; Cooperative Antimicrobial Therapy of Septic Shock (CATSS) Database Research Group. Timing of vasopressor initiation and mortality in septic shock: a cohort study. *Crit Care*. 2014 May;18(3)R97. **Coauthor or Collaborator**.

**Lapinsky SE**. Severity of illness in pregnancy. *Crit Care Med*. 2014 Apr: 42;1284-1285. **Principal Author**.

**Lapinsky SE**, Tram C, Mehta S, Maxwell CV. Restrictive lung disease in pregnancy. *Chest*. 2014 Feb;145;394-8. **Principal Author**.

Aversa M, **Lapinsky SE**. Lung Physiology At Play: Hemoptysis Due To Underwater Hockey. *Resp Med Case Reports*. 2014 Feb;11;16-17. **Senior Responsible Author**.

## **Abstracts**

Lin AE, Shehata N, Reich H, Barth D, Laskin C, **Lapinsky SE**, Gandhi S. [228-POS]: A complicated pregnancy with preeclampsia, HELLP syndrome, and thrombotic microangiopathy in a woman with lupus and antiphospholipid syndrome. *Pregnancy Hypertens*. 2015 Jan;5(1):115. **Coauthor or Collaborator**.

## **Book Chapters**

**Lapinsky SE**. Tetanus. In: Papadakos P, Gestring M (eds). *Encyclopedia of Trauma Care*, Springer, Heidelberg, 2015. **Principal Author**.

**Lapinsky SE**. Auto-PEEP. In: Papadakos P, Gestring M (eds). *Encyclopedia of Trauma Care*. Springer, Heidelberg, 2015. **Principal Author**.

**Lapinsky SE**. Pregnancy. In: Papadakos P, Gestring M (eds). *Encyclopedia of Trauma Care*. Springer, Heidelberg, 2015. **Principal Author**.



**Lapinsky SE**, Nelson-Piercy C. The lungs in obstetric and gynaecologic disease. In: Murray and Nadel's Textbook of Respiratory Medicine, Broaddus VC (Ed) . 6th Ed, Elsevier, Philadelphia, 2015. **Principal Author.**

**Lapinsky SE.** Computers in Intensive Care. In: Rubenfeld G, Scales D (eds). The Organization of Critical Care: An Evidence-Based Approach to Improving Quality. Humana Press, New York, 2014  
Lapinsky SE. Critical Care Medicine in Pregnancy. In: Critical Care Medicine (4th Ed). Parillo JE, Dellinger RP (Eds), Elsevier, Philadelphia, 2014

## Manuals

Christian M, Mazurik L, Libman M, Fowler R, Kissoon N, Kumar A, Lamontange F, Murthy S, Wax R, McEwen J, Garber G, Hota S, Keystone J, McGeer A, Vanderkooi O, Downar J, **Lapinsky SE**, MacDonald R, Schwartz B, Callum J. Ebola Clinical Care Guidelines: A guide for clinicians in Canada. Canadian Critical Care Society, 2014.

## Peer-Reviewed Fundings

2015 Apr – 2019 Mar **Co-Investigator.** STandard versus Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury (STARRT-AKI) Canadian Institutes of Health Research (CIHR). PI: Wald R. \$1,104,971.00 CAD. [Grants]

2013 – 2015 **Co-Investigator.** Regional and temporal variations in incidence, prevalence and outcomes of critical illness among pregnant and post-partum women and newborns in Canada. Canadian Institutes of Health Research (CIHR). PI: Fowler R. Collaborator(s): Aoyama K, Hladunewich M, Ray G, Pinto R, Scales DC. \$41,325.00 CAD. [Clinical Trials]

## Invited Lectures and Presentation

### International

2015 October **Invited Speaker.** Obstetric delivery in mechanically ventilated critically ill pregnant women European Society of Intensive Care Medicine 2015. Berlin, Germany.

2015 July **Invited Speaker.** Lactate as a biomarker of hypoperfusion. Pandemic preparedness. Critical Care Society of Southern Africa Congress 2015. Sun City, South Africa.

2014 Oct **Invited Speaker.** International Society of Obstetric Medicine. Mechanical ventilation in pregnancy. New Orleans, Louisiana, United States.

2014 Sept **Invited Speaker.** European Society of Intensive Care Medicine. Mechanical ventilation in pregnancy. Barcelona, Spain.

2014 May **Collaborator.** American Thoracic Society Annual meeting. Physiology At Play: Hemoptysis Due To Underwater Hockey. Presenter: Aversa M. San Diego, California, United States.

2014 May **Collaborator.** American Thoracic Society annual meeting. Acute Respiratory Distress Syndrome Among High Risk Patients Admitted To Critical Care: Rate And Association With Critical Care Interventions. Presenters: Galvin I, Singh J, Lapinsky SE, Steel AC, Ferguson ND. San Diego, California, United States.

### **Local**

2015 Jul **Invited Speaker.** The Basics of Respiriology, Introductory Course for First Year Respiriology Residents in Ontario - Non-invasive ventilation. Toronto, Ontario, Canada.

2014 Oct **Invited Speaker.** Critical Care Canada Forum. Mechanical ventilation in pregnancy. Toronto, Ontario, Canada.

2014 May **Lecturer.** Canadian Critical Care Review Course. Obstetrics and Critical Care. Toronto, Ontario, Canada.

2014 Feb 20 **Invited Speaker.** CCRT Symposium. Where we were and where we are now. Toronto, Ontario, Canada.

**Dr. Neil Lazar (University Health Network – Toronto General Hospital)**

**Peer-Reviewed Publications**

**Book Chapters**

**Lazar NM.** Withdrawal of Life-Support. In: Papadakos PJ; Gestring ML, editor(s). Encyclopedia of Trauma Care. (United States): Springer; 2015. p. 1797-1800. **Principal Author.**

**Dr. Christie Lee (University Health Network – MSH)**

**Peer-Reviewed Publications**

**Journal Articles**

**Lee CM** and Mehta S. Early sedation use in critically ill mechanically ventilated patients: When less is really more. *Critical Care*. 2014 Aug. **Principal Author**.

**Book Chapters**

**Lee CM**. Hypoxemia, Severe. In: Papadakos P and Gestring M, editor(s). *Encyclopedia of Trauma Care*. (Germany); 2015. Accepted / In Press. **Principal Author**.

**Peer-Reviewed Fundings**

- 2015 - 2016 **Co-Investigator**. Situating education in patient care: exploring how residents navigate learning opportunities for central venous catheter insertion skills. Department of Medicine, Faculty of Medicine, University of Toronto, Department of Medicine Education Research & Scholarship Gran. PI: Brydges R. Collaborator(s): Mylopoulos M, Goffi A. \$11,250.00 CAD. [Grants].
- 2015 Dec – present **Co-Principal Investigator**. Research Project. Point-of-care ultrasound in intensive care units: a multicentered study evaluating the use of ultrasound across Canada. University of Toronto, Toronto, Ontario, Canada. Collaborators: Goffi A. Co-PI: Doufle G, Buchan B, Mehta G, Wong N.
- 2015 Sep 1 – present **Co-Principal Investigator**. Research Project. Competency by Design - transforming the critical care program and developing a program of assessment. Interdepartmental division of critical care, University of Toronto, Ontario, Canada. Collaborator(s): Piquette D, Steel A, Hall D, Parker K.
- 2015 Aug 1 – present **Co-Principal Investigator**. Research Project. Effects of resident level of autonomy during simulated acute care episodes on learning and subsequent medical errors. *Critical Care Medicine*, University Health Network, Mount Sinai Hospital and Sunnybrook Hospital, Toronto, Ontario, Canada. Collaborator(s): Piquette D, Brydges R, Goffi A, Amaral AC, Doufle G, DeSousa S, Ringsted C.
- 2014 – present **Co-Principal Investigator**. Research Project. The role of self-regulated learning by residents during procedural simulation in the intensive care unit. *Critical Care Medicine*, University Health Network and Mount Sinai Hospital. Collaborators: Brydges R, Goffi A, Mylopoulos M.

- 2013 – present                    **Co-Principal Investigator.** Research Project. A Questionnaire on Satisfaction of Family Members during Family Meetings in the Intensive Care Unit. Critical Care Medicine, Mount Sinai Hospital. Collaborators: Sangeeta M.
- 2013 – present                    **Principal Investigator.** Research Project. Critical Care Medicine Family Meeting Feedback Form – A multidisciplinary formative feedback tool for ICU trainees. Mount Sinai Hospital. Collaborators: Kuper A, Kulasegaram M.

## Invited Lectures and Presentation

### Local

- 2015 Oct 20    **Invited Speaker.** Mechanical Ventilation - An Introduction. Surgical Foundations Lecture. Toronto, Ontario, Canada.
- 2015 Jun 2     **Chair.** Education Session. Art Slutsky Day, Toronto, Ontario, Canada.
- 2015 Jun 2     **Presenter.** A Questionnaire on Satisfactory of Family Members During Family Issues Meetings in the Intensive Care Unit. Art Slutsky Day, Ontario, Canada.
- 2015 May       **Invited Speaker.** Social Media and Medical Education. North York General Hospital Faculty Development Workshop, Toronto, Ontario, Canada.
- 2014 Oct       **Presenter.** Education Scholars Program, Centre for Faculty Development, St. Michael's Hospital, University of Toronto. Evaluation of Communication in CCM residents: Moving from CanMEDS to Outcomes and Entrustability through Formative Feedback – Poster. Toronto, Ontario, Canada.
- 2014 Oct       **Invited Speaker.** Mount Sinai Hospital, Department of Medicine, University of Toronto. Pulmonary Function Tests. Toronto, Ontario, Canada.
- 2014 Aug       **Invited Speaker.** Transition to Clerkship, Faculty of Medicine, University of Toronto. Is my patient critically ill? Toronto, Ontario, Canada.
- 2014 Aug       **Invited Speaker.** Mount Sinai Hospital, Department of Medicine, University of Toronto. End of Life Discussions. Toronto, Ontario, Canada.
- 2014            **Presenter.** Critical Care Canada Forum. A Questionnaire on Satisfaction of Family Members during Family Meetings in the Intensive Care Unit. Presenters: Jakab M, Mehta S, Nguyen C, Kraguljac A, Marinelli B, Moore A, Crewe N, Lee CM. Toronto, Ontario, Canada.

## **Honours and Awards**

2015 Jul      Interdepartmental Division of Critical Care Medicine Individual Teaching Excellence, Critical Care Medicine, Dept of Medicine, Faculty of Medicine, University of Toronto, Ontario, Canada. (Postgraduate MD, Core Program).

**Dr. Jeffrey Man (University Health Network – Toronto General Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Nayyar D, **Man HS**, Granton J, Gupta S. Defining and characterizing severe hypoxemia after liver transplantation in hepatopulmonary syndrome. *Liver Transpl.* 2014 Feb;20(2):182-90. **Coauthor or Collaborator.**

**Book Chapters**

**Man HS.** (2015) Conventional Mechanical Ventilation. In Peter J. Papadakos & Mark L. Gestring (eds). *Encyclopedia of Trauma Care.* (pp. 908-918). Verlag Berlin Heidelberg: Springer. **Principal Author.**

**Man HS,** Tsui Albert KY, Marsden Philip A. Nitric oxide and hypoxia signalling. *Vitam and Horm.* 2014;96:161-92. **Principal Author.**

**Reviews**

Nayyar D, **Man HS**, Granton J, Lilly LB, Gupta S. Proposed management algorithm for severe hypoxemia after liver transplantation in the hepatopulmonary syndrome. *Am J Transplant.* 2015 Apr;15(4):903-13. **Coauthor or Collaborator.**

**Invited Lectures and Presentation**

**Provincial**

- 2014 November      **Invited Speaker.** Vascular Endothelial Gene Regulation: the contribution of long non-coding RNA. Centre for Heart Lung Innovation, St. Paul's Hospital, University of British Columbia, Vancouver, British Columbia.
- 2014 November      **Invited Speaker.** Sense and Response to Hypoxia: Role of Nitric oxide. Critical Care Grand Rounds, Vancouver General Hospital, University of British Columbia, Vancouver, British Columbia.

**Local**

- 2015 November      **Invited Speaker.** Acute Respiratory Distress Syndrome: Concepts and Application. Anesthesia Grand Rounds, Toronto Western Hospital, University of Toronto. Toronto, Ontario, Canada.
- 2015 November      **Invited Speaker.** Hypoxemia post-Liver Transplantation. Critical Care Canada Forum. Toronto, Ontario, Canada.

## **Honours and Awards**

- 2014 Fellowship, Training Program in Regenerative Medicine. Canadian Institutes of Health Research
- 2014 Poster Award, Basic Science YIF. Canadian Society for Clinical Investigation/Clinician-Investigator Trainee Association of Canada (CSCI/CITAC) Annual Meeting



**Dr. Sangeeta Mehta (University Health Network – MSH)**

**Peer-Reviewed Publications**

**Journal Articles**

Arabi YM, Ferguson ND, Cook DJ, Zhou Q, Smith O, Hand L, Turgeon AF, Matte A, **Mehta S**, Graham R, Brierley K, Adhikari NKJ, and Meade MO for the Canadian Critical Care Trials Group. Characteristics and outcomes of eligible non-enrolled patients in a mechanical ventilation trial of Acute Respiratory Distress Syndrome. *American Journal Respiratory and Critical Care Medicine*. 2015 Dec;Dec 192(11):1306-1313. **Coauthor or Collaborator**.

Godard S, Herry C, Scales N, Westergaard P, Brown S, Kubelik D, Maziak DE, Jacono F, Martin C, **Mehta S**, Marshall J, Seely A. Practice variation in Spontaneous Breathing Trial performance and documentation. *Can Respir J*. 2015 Nov 17. pii: 17147. [Epub ahead of print]. **Coauthor or Collaborator**.

Digby GC, Keenan SP, Parker CM, Sinuff T, Burns KE, Mehta S, Ronco JJ, Kutsogiannis DJ, Rose L, Ayas NT, Berthiaume LR, D'Arsigny CL, Stollery DE, and Muscedere J, for the Canadian Noninvasive Ventilation Collaborative (CanVEC) Investigators. Non-invasive ventilation practice patterns in Canadian tertiary care centers: a descriptive analysis. *Can Respir J*. 2015 Nov 15;2015 Nov-Dec(6):331-340. pii: 17038. **Coauthor or Collaborator**.

Burry L, Cook D, Herridge M, Devlin J.W, Fergusson D, Meade M, Steinberg M, Skrobik Y, Olafson K, Burns K, Dodek P, Granton J, Ferguson N, Jacka M, Tanios M, Fowler R, Reynolds S, Keenan S, Mallick R, and **Mehta S**, for the SLEAP Investigators and the Canadian Critical Care Trials Group. Recall of ICU stay in patients managed with a sedation protocol or a sedation protocol with daily interruption. *Critical Care Medicine*. 2015 Oct;43(10):2180-90. **Senior Responsible Author**.

Rose L, Burry L, Mallick R, Luk E, Cook DJ, Fergusson D, Dodek P, Burns K, Granton J, Ferguson N, Devlin JW, Steinberg M, Keenan S, Reynolds S, Tanios M, Fowler RA, Jacka M, Olafson K, Skrobik Y, **Mehta S**. Prevalence, risk factors and outcomes associated with physical restraint use in mechanically ventilated adults. *J. Crit. Care*. 2015 Sep 25;31:31-35. **Senior Responsible Author**. (Journal Articles) Gradwohl-Matis I, Mehta S, Dunser MW. What's new in sedation strategies? *Intensive Care Med*. 2015 Sep;41(9):1696-9. **Senior Responsible Author**.

Heyland D, Garland A, Bagshaw SM, Cook D, Rockwood K, Stelfox HT, Dodek P, Fowler RA, Turgeon AF, Burns K, Muscedere J, Kutsogiannis J, Albert M, **Mehta S**, Jiang X, Day AG, Canadian Critical Care Trials Group and the Canadian Researchers at the End of Life Network. Recovery after critical illness in patients aged 80 years or older: A multi-centre prospective observational cohort study. *Intensive Care Medicine*. 2015 Aug 26;41(11):1911-20. Epub 2015 Aug 26. **Coauthor or Collaborator**.

Heyland D, Cook D, Bagshaw SM, Garland A, Stelfox HT, **Mehta S**, Dodek P, Kutsogiannis J, Burns K, Muscedere J, Turgeon AF, Fowler R, Jiang X, Day AG, on behalf of the Canadian Critical Care Trials Group and the Canadian Researchers at the End of Life Network (CARENET). The Very Elderly Admitted to Intensive Care Unit: A quality finish? *Critical Care Medicine*. 2015 Jul 21;43(7):1352-60. **Coauthor or Collaborator**.

Heyland D, Cook D, Bagshaw SM, Garland A, Stelfox HT, **Mehta S**, Dodek P, Kutsogiannis J, Burns K, Muscedere J, Turgeon AF, Fowler R, Jiang X, Day AG, on behalf of the Canadian Critical Care Trials Group and the Canadian Researchers at the End of Life Network (CARENET). The Very Elderly Admitted to Intensive Care Unit: A quality finish? *Crit Care Med*. 2015 Jul;43(7):1352-60. **Coauthor or Collaborator.**

NICE-SUGAR Study Investigators for the Australian and New Zealand Intensive Care Society Clinical Trials Group and the Canadian Critical Care Trials Group, Finfer S, Chittock D, Li Y, Foster D, Dhingra V, Bellomo R, Cook D, Dodek P, Hebert P, Henderson W, Heyland D, Higgins A, McArthur C, Mitchell I, Myburgh J, Robinson B, Ronco J. Intensive versus conventional glucose control in critically ill patients with traumatic brain injury: long-term follow-up of a subgroup of patients from the NICE-SUGAR study. *Intensive Care Med*. 2015 Jun;41(6):1037-47. **Coauthor or Collaborator.**

Choong K, Al-Harbi S, Siu K, Wong K, Cheng J, Baird B, Pogorzelski D, Timmons B, Gorter JW, Thabane L, Khetani M; Canadian Critical Care Trials Group. Functional recovery following critical illness in children: the “wee-cover” pilot study. *Pediatr Crit Care Med*. 2015 May;16(4):310-8. **Coauthor or Collaborator.**

Heyland DK, Elke G, Cook D, Berger MM, Wischmeyer PE, Albert M, Muscedere J, Jones G, Day AG; Canadian Critical Care Trials Group. Glutamine and antioxidants in the critically ill patient: a post hoc analysis of a large-scale randomized trial. *JPEN J Parenter Enteral Nutr*. 2015 May;39(4):401-9. doi: 10.1177/0148607114529994. Epub 2014 May 5. **Coauthor or Collaborator.**

Rose L, Fitzgerald E, Cook D, Kim S, Steinberg M, Devlin J.W, Ashley B.J, Dodek P, Smith O, Poretta K, Lee Y, Burns K, Harvey J, Skrobik Y, Ferguson D, Meade M, Kraguljac A, Burry L, **Mehta S**, for the SLEAP Investigators and the Canadian Critical Care Trials Group. Clinician perspectives on protocols designed to minimize sedation. *Journal of Critical Care*. 2015 Apr 30;April 30 (2):348-52. *J Crit Care* 2015 Apr;30(2):348-52. **Senior Responsible Author.**

Lacroix J, Hébert PC, Fergusson DA, Tinmouth A, Cook DJ, Marshall JC, Clayton L, McIntyre L, Callum J, Turgeon AF, Blajchman MA, Walsh TS, Stanworth SJ, Campbell H, Capellier G, Tiberghien P, Bardiaux L, van de Watering L, van der Meer NJ, Sabri E, Vo D; ABLE Investigators; Canadian Critical Care Trials Group. Age of transfused blood in critically ill adults. *N Engl J Med*. 2015 Apr;372(15):1410-8. **Coauthor or Collaborator.**

Parshuram CS, Friedrich JO, Amaral ACKB, Baker GR, Etchells EE, Flintoft V, Lingard L, Kirpalani H, **Mehta S**, Moldofsky H, Scales DC, Stewart TE, Willan AR, Ferguson ND, for the Canadian Critical Care Trials Group. Patient safety and resident wellbeing in three resident duty schedules in ICU: a randomized trial. *CMAJ*. 2015 Mar 17;187(5):321-329. **Coauthor or Collaborator.**

**Mehta S**, Cook D, Devlin JW, Skrobik Y, Meade M, Fergusson D, Herridge M, Steinberg M, Granton J, Ferguson N, Tanios M, Dodek P, Fowler R, Burns K, Jacka M, Olafson K, Mallick R, Reynolds S, Keenan S, Burry L for the SLEAP Investigators and the Canadian Critical Care Trials Group. Incidence, risk factors and outcomes of delirium in mechanically ventilated adults. *Crit Care Medicine*. 2015 Mar;43(3):557-662. **Principal Author.**

Cook DJ, Ferguson ND, Hand L, Austin P, Zhou Q, Adhikari NK, Danesh V, Arabi Y, Matte AL, Clarke FE, **Mehta S**, Smith O, Wise MP, Friedrich JO, Keenan SP, Hanna S, Meade MO, OSCILLation for ARDS Treated Early Investigators and the Canadian Critical Care Trials Group. Coenrollment in a randomized trial of high-frequency oscillation: prevalence, patterns, predictors, and outcomes\*. Crit Care Med. 2015 Feb;43(2):328-38. **Coauthor or Collaborator.**

Lim W, Meade M, Lauzier F, Zarychanski R, **Mehta S**, Lamontagne F, Dodek P, McIntyre L, Hall R, Heels-Ansdell D, Fowler R, Pai M, Guyatt G, Crowther MA, Warkentin TE, Devereaux PJ, Walter SD, Muscedere J, Herridge M, Turgeon AF, Geerts W, Finfer S, Jacka M, Berwanger O, Ostermann M, Qushmaq I, Friedrich JO, Cook DJ, PROphylaxis for ThromboEmbolism in Critical Care Trial Investigators, PROphylaxis for ThromboEmbolism in Critical Care Trial Investigators. Failure of anticoagulant thromboprophylaxis: risk factors in medical-surgical critically ill patients\*. Critical Care Medicine. 2015 Feb;43(2):401-10. **Coauthor or Collaborator.**

Burry L, **Mehta S**, Williamson DR, Ely EW, Adhikari NKJ, Egerod I, Fergusson DA, Rose L. Pharmacological interventions for the treatment of delirium in critically ill patients. . Cochrane Database of Systematic Reviews 2015. 2015(6). Art. No.: CD011749. **Coauthor or Collaborator.**

Burns K, Rizvi L, Smith O, Lee Y, Lee J, Wang M, Brown M, Parker M, Premji A, Leung D Hammond-Mobilio M, Gotlib-Conn L, Nisenbaum R, Santos M, Li Y, **Mehta S**. Is there a role for physician involvement in introducing research to surrogate decision makers in the Intensive Care Unit? (The Approach Trial: A Mixed Methods Study). Intensive Care Medicine. 2015. 2015 Jan;41(1):58-67. **Senior Responsible Author.**

Burns KEA, Wong J, Rizvi L, Hand L, Cook DJ, Dodek P, Mehta S, Kho ME, Lamontagne F, Friedrich JO, Seely AJ, Brochard L, Fan E, Leger C, Rajwani F, Lee J, Thorpe K, Meade MO. Parallel Pilot Trials of Screening Frequency for Liberation from Mechanical Ventilation the RELEASE Trial and SENIOR Trial Protocols. J Clin Trials. 2015;5(236). **Coauthor or Collaborator.**

Burry L, Williamson DR, Perreault MM, Rose L, Cook DJ, Ferguson N, Wong Z, Lapinsky SC, **Mehta S**. Analgesic, sedative, antipsychotic, and neuromuscular blocker use in Canadian ICUs: a prospective, multicenter, observational study. Can J Anaesth 2014 Jul;61(7):619-630. 2014 May 1. **Senior Responsible Author.**

Burry L, Rose L, McCullagh I, Ferguson ND, Fergusson D, **Mehta S**. Daily sedation interruption versus no daily sedation interruption for critically ill adult patients requiring invasive mechanical ventilation. Cochrane Database of Systematic Reviews 2014 Jul 9;7. **Senior Responsible Author.**

Crowther M, Cook D, Guyatt G, Zytaruk N, McDonald E, Williamson D, Albert A, Dodek P, Finfer S, Vallance S, Heels-Ansdell D, McIntyre L, **Mehta S**, Lamontagne F, Muscedere J, Jacka M, Lesur O, Kutsiogiannis J, Friedrich J, Klinger JR, Qushmaq I, Burry L, Kwaja K, Sheppard J, and Warkentin TE for the PROTECT collaborators, the Canadian Critical Care Trials Group and the Australian and New Zealand Intensive Care Society Clinical Trials Group. Heparin induced thrombocytopenia in the critically ill: Interpreting the 4Ts Test in a randomized trial. J Crit Care 2014 Jun;29(3):470.e7-15. **Coauthor or Collaborator.**

Seely AJE, Bravi A, Herry C, Green G, Longtin A, Ramsay T, Fergusson D, McIntyre L, Kubelik D, Fazekas A, Maziak DE, Fergusson N, Mehta S, Martin C, Rubinfeld G, Jacono F, Marshall J, and the WAVE Investigators for the Canadian Critical Care Trials Group. Do heart and respiratory rate variability improve prediction of extubation outcomes in critically ill patients? *Critical Care*. 2014 Apr 8;18(2):R65. **Coauthor or Collaborator.**

Adhikari NKJ, Dellinger RP, Lundin S, Payen D, Vallet B, Gerlach H, Park KJ, **Mehta S**, Slutsky AS, Friedrich JO. Inhaled nitric oxide does not reduce mortality in patients with acute respiratory distress syndrome and severe hypoxemia: systematic review and meta-analysis. *Crit Care Med* 2014 Feb;42(2):404-12. **Coauthor or Collaborator.**

Katsios C, Donadini M, Meade M, **Mehta S**, Hall R, Granton J, Kutsogiannis J, Dodek P, Heels-Ansdell D, McIntyre L, Vlahakis N, Muscedere J, Friedrich J, Fowler R, Skrobik Y, Albert M, Cox M, Klinger J, Nates J, Bersten A, Doig C, Zytaruk N, Crowther M, Cook D. Prediction scores do not correlate with clinically adjudicated categories of pulmonary embolism in critically ill patients. *Canadian Resp J*. 2014;21(1):36-42. **Coauthor or Collaborator.**

Lapinsky S, Tram C, **Mehta S**, Maxwell C. Restrictive lung disease in pregnancy. *CHEST* 2014;145 (2):394-398. **Coauthor or Collaborator.**

Luk E, Sneyers B, Rose L, Perreault MM, Williamson DR, **Mehta S**, Cook D, Lapinsky SC, Burry L. Predictors of physical restraint use in Canadian ICUs. *Critical Care* 2014, 18:R46. **Coauthor or Collaborator.**

Lauzier F, Muscedere J, Deland E, Kutsogiannis DJ, Jacka M, Heels-Ansdell D, Crowther M, Cartin-Ceba R, Cox MJ, Zytaruk N, Foster D, Sinuff T, Clarke F, Thompson P, Hanna S, Cook D; Co-operative Network of Critical Care Knowledge Translation for Thromboprophylaxis (CONECKT-T) Investigators; Canadian Critical Care Trials Group. Thromboprophylaxis patterns and determinants in critically ill patients: a multicenter audit. *Crit Care*. 2014 Apr 25;18(2):R82. **Coauthor or Collaborator.**

Fowler RA, Mittmann N, Heels-Ansdell D, Geerts W, Guyatt G, Krahn M, Finfer S, Pinto R, Chan B, Ormanidhi O, Arabi Y, Qushmaq I, Rocha MG, Dodek, P, McIntyre L, Hall R, Ferguson N, **Mehta S**, Marshall JC, Doig CJ, Muscedere J, Jacka MJ, Klinger JR, Vlahakis N, Orford N, Seppelt I, Skrobik YK, Sud S, Cade JF, Cooper J, Cook D. Cost-effectiveness of dalteparin versus unfractionated heparin for the prevention of venous thromboembolism in critically ill patients. *JAMA* 2014; 312(20):2135. **Coauthor or Collaborator.**

**Mehta S**, Cook DJ, Martin CM, Muscedere J, Skrobik Y, Burry LD, Stewart TW, Zhou Q, and Meade M for the Lung Open Ventilation Study Investigators. A ventilator strategy combining low tidal volume ventilation, recruitment maneuvers and high positive end-expiratory pressure does not increase sedative, opioid, or neuromuscular blocker use in adults with Acute Respiratory Distress Syndrome. *Annals of Intensive Care*. 2014, 4:33. **Principal Author.**

Burns K, Rizvi L, Smith OM, **Mehta S**. A mixed methods pilot RCT comparing alternative strategies for approaching substitute decision makers for proxy consent for research participation. *J Clin Trials*. 2014; 4:164. **Senior Responsible Author.**

Fowler RA, Mittmann N, Geerts W, Heels-Ansdell D, Gould MK, Guyatt G, Krahn M, Finfer S, Pinto R, Chan B, Ormanidhi O, Arabi Y, Qushmaq I, Rocha MG, Dodek P, McIntyre L, Hall R, Ferguson ND, **Mehta S**, Marshall JC, Doig CJ, Muscedere J, Jacka MJ, Klinger JR, Vlahakis N, Orford N, Seppelt I, Skrobik YK, Sud S, Cade JF, Cooper J and Cook DJ. Economic Evaluation of the Prophylaxis for ThromboEmbolism in Critical Care Trial (E-PROTECT): study protocol for the economic evaluation of a randomized controlled trial. *Trials* 2014 Dec 20;15(1):502. **Coauthor or Collaborator.**

## **Abstracts**

Lamontagne F, Meade MO, Heyland D, Hebert P, Lauzier F, Seely A, **Mehta S**, Muscedere J, Kanji S, Turgeon AF, Ferguson ND, Herridge MS, Subramanian S, Cook DJ, Bagshaw SM, Adhikari N, Scales DC, Day A, Lacroix J, Fox--Robichaud A, Green R, Asfar P, Tanguay T, Koo K, Magder SA, Whitlock R. The Optimal VAsopressor Titration (OVATION) Pilot Randomized Controlled Trial. *American Journal of Respiratory and Critical Care Medicine*. 2015;191(A5123). **Coauthor or Collaborator.**

Godard S, Herr C, Scales N, Westergaard P, Brown S, Kubelik D, Maziak D, Jacono F, Martin C, **Mehta S**, Ferguson N, Marshall J, Seely A and the Canadian Critical Care Trials Group. Does practice variation in spontaneous breathing trial performance and reporting compromise extubation outcome prediction? 2014 Oct. Critical Care Canada Forum. Toronto, Ontario, Canada. **Coauthor or Collaborator.**

Ray J, MacEachern K, Burry L, **Mehta S**. Evaluation of nutritional delivery to elderly patients admitted to the ICU: a retrospective study. 2014 October . Critical Care Canada Forum. Toronto, Ontario, Canada. **Coauthor or Collaborator.**

Jakab M, **Mehta S**, Nguyen C, Kraguljac A, Moore A, Crewe N, Lee CM. A questionnaire on satisfaction of family members during family issues meetings in the Intensive Care Unit. October 2014. Critical Care Canada Forum. Toronto, Ontario, Canada. **Coauthor or Collaborator.**

Lamarche D, Rossi L, Shah M, Zytaruk N, Clarke F, Hand L, Lee J, Lee Y, Smith O, Jakab M, Shah S, Breton SJ, Langlois H, Porteous R, Watpool I, Acres S, Foster D, Meade M, Marshall J, Lauzier F, **Mehta S**, McIntyre LL, Pagliarello G, Henderson W, Johnstone J, Heyland D, Thebane L, Bowdish D, Cook D, Surette M for the PROSPECT Investigators and the Canadian Critical Care Trials Group. Quality control in the conduct of a Probiotic randomized trial. 2014 October. Critical Care Canada Forum. Toronto, Ontario, Canada. **Coauthor or Collaborator.**

Wheeler KE, **Mehta S**, Calce A, Cook D, Perreault MM, Thiboutot Z, Guenette M, Cho A, Burry L. Survey of Canadian Intensive Care Unit Pharmacists' attitudes, knowledge, and use of probiotics for patients (Pro-Surve). Critical Care Canada Forum, Toronto, October 2014. **Coauthor or Collaborator.**

Jacobs G, Giacomino B, Kraguljac A, Ray J, Jakab M, Marinelli B, Jung J, Little A, **Mehta S**. Characteristics and outcomes of patients who had bedside tracheostomy performed in the Intensive Care Unit. Critical Care Canada Forum, Toronto, October 2014. **Senior Responsible Author.**

Cook D, Hand L, Austin P, Zhou Q, Danesh V, Adhikari NKJ, Arabi Y, **Mehta S**, Clarke F, Matte AL, Smith O, Wise M, Keenan S, Friedrich JO, Hanna J, Ferguson ND, Meade M, for the OSCILLATE Investigators and the Canadian Critical Care Trials Group. Coenrolment in a randomized trial of high frequency oscillation in ARDS: Prevalence, patterns and predictors. *Am J Respir Crit Care Med.* 2014;189: A2542. **Coauthor or Collaborator.**

Centofanti J, Zytaruk N, Foster D, Martinka G, Meade M, Hand L, Karachi T, **Mehta S**, Granton J, Muscedere J, O'Callaghan N, Dodek P, Ashley BJ, McIntyre LL, Watpool I, Kutsogiannis J, Jacka M, Fowler R, Wood G, Auld F, Cook DJ for the CONECKTT Investigators and the CCCTG. Pre-printed orders for thromboprophylaxis in the ICU: A Cross-sectional Analysis. *Am J Respir Crit Care Med.* 2014;189:A4492. **Coauthor or Collaborator.**

Burns KEA, Rizvi L, Smith O, Lee Y, Lee J, Brown M, Parker M, Santos M, Li Y, Nisenbaum R, **Mehta S**. A randomized trial of different strategies for introducing research to Substitute Decision Makers: The APPROACH Trial (Quantitative Study). *Am J Respir Crit Care Med.* 2014;189: A2543. **Senior Responsible Author.**

Arabi Y, Cook D, Smith O, Hand L, Adhikari NKJ, Zhou Q, Turgeon AF, Matte A, **Mehta S**, Graham R, Brierley K, Ferguson ND, Meade M. Characteristics and outcomes of eligible non-enrolled patients in the OSCILLATE Trial. *Am J Respir Crit Care Med.* 2014;189: A4465. **Coauthor or Collaborator.**

Cameron JI, Chan L, Czerwonka A, Chu LM, Matte AL, Tomlinson G, Thomas C, Ferguson ND, **Mehta S**, Friedrich J, Adhikari N, Fowler R, Lamontagne F, Rudkowski JC, Meggison H, Ayas N, Skrobik Y, Batt JA, Santos CD, Flannery J, Abbey S, Rubenfeld GD, Scales DC, Sinuff T, Cuthbertson B, Fan E, Slutsky AS, Levasseur M, Bayley M, Lee C, Lo V, Mathur S, Tan A, Wilcox ME, Marshall JC, Cook DJ, Herridge MS, for the Canadian Critical Care Trials Group. Caregiver well-being is dependent on caregiver mastery, social support and participation in valued activities: Towards RECOVER Study. *Am J Respir Crit Care Med.* 2014;189: A1144. **Coauthor or Collaborator.**

Herridge MS, Chu LM, Matte AL, Chan L, Tomlinson G, Ferguson ND, **Mehta S**, Friedrich J, Adhikari N, Fowler R, Lamontagne F, Rudkowski JC, Meggison H, Skrobik Y, Batt J, Dos Santos C, Flannery J, Abbey S, Rubenfeld GD, Scales DC, Sinuff T, Cuthbertson B, Fan E, Slutsky AS, Levasseur M, Bayley M, Lee C, Lo V, Mathur S, Tan A, Thomas C, Wilcox ME, Marshall JC, Cook DJ, Cameron JI, for the Canadian Critical Care Trials Group. Long-Term patient outcomes after prolonged mechanical ventilation: The Towards RECOVER Study. *Am J Respir Crit Care Med.* 2014;189: A3879. **Coauthor or Collaborator.**

**Mehta S**, Meade M, Friedrich JO, Zhou Q, Iwashyna TJ, Lamontagne F, Bosma K, Burry L, Park P, Arroliga A, Dionne J, Dominguez-Cherit G, Foster D, Hall R, Hanna S, Matte A, Skrobik Y, Smith O, Taneja R, Ferguson ND, OSCILLATE Investigators and the Canadian Critical Care Trials Group. Variation in neuromuscular blocker use in a randomized controlled trial of high-frequency oscillation. European Society of Intensive Care Medicine Congress, Barcelona, Spain, September 2014 (oral presentation). *Intensive Care Medicine* 2014;40(1):S0313. **Principal Author.**

Rose L, Burry L, Mallick R, Luk E, Cook D, Fergusson D, Meade M, Herridge M, Dodek P, Burns K, Granton J, Ferguson N, Devlin J, Steinberg M, Tanios M, Fowler R, Jacka M, Olafson K, Skrobik Y, **Mehta S** for the SLEAP investigators and Canadian Critical Care Trials Group. Factors associated with restraint use in the SLEAP trial: a multicenter randomized trial comparing protocolized sedation with daily sedation interruption versus protocolized sedation alone in mechanically ventilated adults. European Society of Intensive Care Medicine Congress, Barcelona, Spain, September 2014 (oral presentation). *Intensive Care Medicine*. 2014;40(1):S0914. **Coauthor or Collaborator**.

MacEachern KN, Kraguljac AP, **Mehta S**. Nutrition care of critically ill patients with leukemia: a retrospective review. European Society of Intensive Care Medicine Congress, Barcelona, Spain, September 2014 (oral presentation). *Intensive Care Medicine*. 2014;40(1):S0286. **Principal Author**.

Burry L, **Mehta S**, Williamson D, Perreault P, Mantas I, Fergusson D, Smith O, Cho A, Dupuis S, Fan E, Rose L. A prospective evaluation of psychoactive medications and delirium in Canadian critically ill adults: Interim Results. European Society of Intensive Care Medicine Congress, Barcelona, Spain, September 2014 (oral presentation). *Intensive Care Medicine*. 2014;40(1):S0916. **Coauthor or Collaborator**.

Lapinsky SE, Austin K, **Mehta S**. Mechanical ventilation in critically ill pregnant women. European Society of Intensive Care Medicine Congress, Barcelona, Spain, September 2014 (oral presentation). *Intensive Care Medicine*. 2014;40(1):S0308. **Senior Responsible Author**.

Sugiura A, Laksman Z, Lapinsky S, **Mehta S**. Outcome of critically ill patients managed with High Frequency Oscillatory Ventilation. European Society of Intensive Care Medicine Congress, Barcelona, Spain, September 2014 (oral presentation). *Intensive Care Medicine*. 2014;40(1):S0314. **Senior Responsible Author**.

## Editorials

**Mehta S**. Protocolized sedation in critically ill children. *JAMA*. 2015;313(4):363-4. **Principal Author**.

## Peer-Reviewed Fundings

- |                |                                                                                                                                                                                                             |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2014 – present | <b>Co-Investigator</b> . LibeRation from MEchanical VEntilAtion and ScrEening Frequency Trial: The RELEASE Trial. Ontario Thoracic Society, Grant-In-Aid. PI: Burns K. \$50,000.00 CAD. [Grants]            |
| 2014 - present | <b>Co-Investigator</b> . Screening elderly patients for inclusion in a weaning trial: he SENIOR trial. Technology Evaluation in the Elderly, 2013 Catalyst Research. PI: Burns K. \$99,894.00 CAD. [Grants] |
| 2014 – present | <b>Co-Investigator</b> . Frequency of Screening And SBT Technique Trial: The FAST Trial. CIHR Operating Grant. PI: Burns K. \$212,067.60 CAD. [Grants]                                                      |

2014 – present	<b>Co-Principal Investigator.</b> Survey of pharmacists' attitudes toward the use of probiotics to prevent ventilator associated pneumonia. Technology Evaluation in the Elderly Network, Summer Student Award 2014. PI: Burry L. \$6,000.00 CAD. [Grants]
2014 – present	<b>Principal Investigator.</b> Evaluation of nutritional delivery to elderly patients admitted to the Intensive Care Unit: a retrospective study. Mount Sinai Hospital Department of Medicine Awards Program. \$2,500.00 CAD [Grants]
2009 – present	<b>Co-Investigator.</b> OSCILLation for ARDS Treated Early (OSCILLATE) Trial. Canadian Institutes of Health Research (CIHR). PI: Meade M, Ferguson N. \$ 3,792,489 CAD [Grants]
2015 Oct - 2016 Sep	<b>Co-Investigator.</b> The RECOVER Program: A Patient- and Family-Centred international practice standard for follow-up care after critical illness and National ICU-outcomes educational program. University of Toronto Department of Medicine Integrating Challenge Grant. PI: Herridge M. \$200,000.00 CAD. [Grants]
2013 Nov – 2014 Oct	<b>Principal Investigator.</b> Diurnal sedative/analgesic changes in a multicenter randomized trial comparing protocolized sedation with daily sedation Interruption versus protocolized sedation alone. Mount Sinai Hospital Department of Medicine Clinical Research Support Program. \$4800.00 CAD. [Grants]
2013 Nov – 2014 Oct	<b>Co-investigator</b> . Antipsychotics for management of delirium – A systematic review. Technology Evaluation in the Elderly Network. 2013 Knowledge Synthesis Grant Program. \$49,987.00 CAD. [Grants]
2013 April – 2014 April	<b>Principal Investigator.</b> Predictors of restraint use in a multicenter randomized trial comparing protocolized sedation with daily sedation Interruption versus protocolized sedation alone. Mount Sinai Hospital Department of Medicine Clinical Research Support Program. \$ 4500.00 CAD. [Grants]
2013 April – 2014 April	<b>Senior Investigator.</b> Restraint use within the SLEAP Trial. 2013 Sigma Theta Tau International Lambda Pi-At-Large Research Seed Grant. PI: Luk E, RN. \$1000.00 CAD. [Grants]
2013 Mar – 2014 Feb	<b>Co-Principal Investigator.</b> Predictors of Restraint use in a Multicenter Randomized Trial comparing Protocolized Sedation with Daily Sedation Interruption versus Protocolized Sedation Alone. 2012-2013 Canadian Association of Critical Care Nurses (CACCN) Research Grant. PI: Rose L. [Grants]



2014 May – 2014 Aug      **Supervisor.** Noninvasive ventilation for acute respiratory failure in Immunocompromised Patients: a retrospective study. Mount Sinai Hospital Department of Medicine Awards Program – Summer studentship. Student: Bell C, BSc, MD candidate. \$2500.00 CAD. [Grants]

## Invited Lectures and Presentation

### International

- 2015 Oct 16      **Presenter.** Red Blood Cell Transfusions and Iron Therapy for Patients Presenting with Acute Upper Gastrointestinal Bleeding: A Survey of Gastroenterologists. American College of Gastroenterology Annual Meeting, Honolulu, Hawaii, United States. Presenter(s): Fortinsky KJ, Martel M, Razik R, Spiegle G, Grover S, Pavenski K, Weizman A, Gallinger Z, Kwapisz L, Mehta S, Gray S, Barkun AN.
- 2015 May 19      **Facilitator.** Frontiers in Assisted Ventilation. American Thoracic Society Meeting, San Diego, Colorado, United States. Invited to facilitate thematic poster session. Declined.
- 2014 Oct 1      **Chair.** Preventing Delirium in Critical Illness; Guidelines on pain, sedation and delirium. European Society of Intensive Care Medicine Congress. Barcelona, Spain.
- 2014 Oct 1      **Invited Speaker.** Which sedatives are safe? Thematic Session on Guidelines on Pain, Sedation and Delirium Management. European Society of Intensive Care Medicine (ESICM) LIVES 2014, 27th Annual Congress. Barcelona, Spain
- 2014 Sept 29      **Video interview.** Sedation management – a few tips! European Society of Intensive Care Medicine (ESICM) Congress. Posted on ESICM website. <http://www.esicm.org/news>. Barcelona, Spain.
- 2014 Sept 29      **Invited Speaker.** Lessons learned from the patient. State of the Art Session on ICU Environment. European Society of Intensive Care Medicine (ESICM) LIVES 2014, 27th Annual Congress. Barcelona, Spain,
- 2014 Apr 28      **Invited Speaker.** Sedation and delirium management in the ICU. Long Beach Memorial 6<sup>th</sup> Critical Care Symposium. Long Beach, California, United States.

### Local

- 2015 Oct 28      **Invited Speaker.** Delirium in the ICU – Helped by Restraints. Critical Care Canada Forum, Toronto, Ontario, Canada.
- 2015 Oct 28      **Session Co-Chair.** Delirium in the ICU. Critical Care Canada Forum, Toronto, Ontario, Canada.

- 2015 Oct 27      **Session Chair.** Plenary RCT presentation. Critical Care Canada Forum, Toronto, Ontario, Canada.
- 2015 Sep 29      **Round Table Discussion.** University of Toronto New Faculty Orientation. University Club, Toronto, Ontario, Canada.
- 2015 Aug 18      **Invited Speaker.** Sedation practices – are we aware? Critical Care Expert Series, University of Toronto Interdepartmental Division of Critical Care Medicine. Toronto, Ontario, Canada.

### **Honours and Awards**

- 2015      Presidential Citation, SCCM, United States. (Distinction). Awarded for outstanding contributions to the SCCM in 2014.
- 2014      Presidential Citation, Society of Critical Care Medicine (SCCM). Awarded for outstanding contributions to the Society of Critical Care Medicine in 2013.

**Dr. Jeffery Singh (University Health Network – TWH)**

**Peer-Reviewed Publications**

**Journal Articles**

Wilson JR, Voth J, Singh A, Middleton J, Jaglal S, **Singh JM**, Mainprize TG, Yee A, Fehlings M. Defining the Pathway to Definitive Care and Surgical Decompression after Traumatic Spinal Cord Injury: Results of a Canadian Population Based Cohort Study. *J Neurotrauma*. 2015 Dec 9. **Coauthor or Collaborator.**

Goligher EC, Fan E, Herridge MS, Murray A, Vorona S, Brace D, Rittayamai N, Lanys A, Tomlinson G, **Singh JM**, Bolz SS, Rubenfeld GD, Kavanagh BP, Brochard LJ, Ferguson ND. Evolution of Diaphragm Thickness during Mechanical Ventilation. Impact of Inspiratory Effort. *Am J Respir Crit Care Med*. 2015 Nov 1;192(9):1080-8. **Coauthor or Collaborator.**

**Singh JM**, MacDonald RD, Ahghari M. Post-medication Hypotension after Administration of Sedatives and Opioids during Critical Care Transport. *Prehosp Emerg Care*. 2015 Oct 1;19(4):464-74. **Principal Author.**

Goligher EC, Fan E, Herridge MS, Murray A, Vorona S, Brace D, Rittayamai N, Lanys A, Tomlinson G, **Singh JM**, Bolz SS, Rubenfeld GD, Kavanagh BP, Brochard LJ, Ferguson ND. Evolution of Diaphragm Thickness During Mechanical Ventilation: Impact of Inspiratory Effort. *American Journal of Respiratory and Critical Care Medicine*. 2015 Jul 15. **Coauthor or Collaborator.**

Gomez D, Haas, B, Larsen K, Alali AS, MacDonald RD, **Singh JM**, Tien H, Iwashyna TJ, Rubenfeld G, Nathens AB. A novel methodology to characterize inter-facility transfer strategies in a trauma transfer network. *Annals of Surgery*. 2015 Jun 6. **Coauthor or Collaborator.**

Jaja BN, Attalla D, Macdonald RL, Schweizer TA, Cusimano MD, Etminan N, Hanggi D, Hasan D, Johnston SC, Le Roux P, Lo B, Louffat-Olivares A, Mayer S, Molyneux A, Noble A, Quinn A, Schenk T, Spears J, **Singh JM**, Todd M, Torner J, Tseng M, van den Bergh W, Vergouwen MD, Wong GK. The Subarachnoid Hemorrhage International Trialists (SAHIT) Repository: advancing clinical research in subarachnoid hemorrhage. *Neurocrit Care*. 2014 Dec 1;21(3):551-9. **Coauthor or Collaborator.**

Venkatraghavan L, Tymianski S, **Singh JM**. Do transfusion requirements increase after the diagnosis of vasospasm in patients with aneurysmal subarachnoid haemorrhage? *Journal of Neuroanesthesiology and Critical Care*. 2014 Nov;2(1);38-43. **Coauthor or Collaborator.**

Hawryluck L, Baker AJ, Faith A, **Singh JM**. The future of decision-making in critical care after Cuthbertson v. Rasouli. *Can J Anaesth*. 2014 Oct 1;61(10):951-8. **Senior Responsible Author.**

Marhong JD, Ferguson ND, **Singh JM**. Ventilation Practices in Subarachnoid Hemorrhage: A Cohort Study Exploring the Use of Lung Protective Ventilation. *Neurocrit Care*. 2014 Jul 15. **Senior Responsible Author.**

**Singh JM**, MacDonald RD, Ahghari M. Critical events during land-based interfacility transport. *Ann Emerg Med.* 2014 Jul 1:64(1);9-15.e2. **Principal Author.**

Plener I, Sadry S, Mozessohn L, Lee JY, Man D, Shehata N, **Singh JM**. Management of severe dabigatran-related hemorrhage: case report, considerations for management, and recommendations. *Can J Hosp Pharm.* 2014 Jan:67(1);43-7. **Senior Responsible Author.**

Minnema B, Burry B, Dresser L, Duplisea K, Ferguson ND, Lapinsky S, Lazar N, Nelson S, Poutanen S, **Singh JM**, Tomlinson G, Bai A, Bell CM, Morris AM. Antimicrobial Stewardship using dynamic prospective audit and feedback in tertiary intensive care units: a multi-site prospective study. *American Journal of Respiratory and Critical Care Medicine.* 2014 June. **Coauthor or Collaborator.**

### **Abstracts**

**Singh JM**, MacDonald RD, Ahghari M. Adverse Events During Land-Based Urgent Critical Care Prehosp Emerg Care. 2014 Jan 14:18;138. **Principal Author.**

**Singh JM**, Farias P, Wheeler K, Mew E, Albert R, Fan E. Challenges in Assessing Delirium in the Neurointensive Care Unit. 2014 Jan. **Principal Author.**

### **Peer-Reviewed Funding**

- |                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 Jul - 2020 Jun   | <b>Co-Investigator.</b> The NEUROlogically-impaired Extubation Timing Trial (NEURO-ETT). Canadian Institutes of Health Research (CIHR). Transitional Operating Grant 2014-2015. PI: Scales D, Ferguson N. Collaborator(s): Adhikari N, Alali A, Baker AJ, Bosma K, Brochard L, Chapman M, Charbonney E, Cuthbertson B, Fowler R, Griesdale D, Mainprize T, McCredie V, Meade M, Nathens A, Rubenfeld G, Seely A, Turgeon A, Wilcox ME, Zygum D. \$880,405.00 CAD. [Grants] |
| 2015 Mar - 2017 Mar   | <b>Principal Investigator.</b> Predictors of Apnea and Their Relationship to Time to Death Following Withdrawal of Life Sustaining Therapy for Donation after Cardiac Death Candidates. Physician Services Incorporated Foundation. Health Research Grant. PI: Munshi L. Collaborator(s): Dhanani S, Payne C. \$37,025.00 CAD. [Grants]                                                                                                                                    |
| 2012 Sept – 2015 Sept | <b>Principal Investigator.</b> Innovative approaches to mechanical ventilation in spinal cord injured patients. Ontario Neurotrauma Foundation. Collaborator(s): Spahija J. \$100,000.00 CAD. [Clinical Trials]                                                                                                                                                                                                                                                            |

## Non-Peer Reviewed Funding

2013 Aug - 2015 Aug **Principal Site Investigator.** EUPHRATES - Evaluation of the use of Polymixin B Hemoperfusion in a Randomized Controlled Trial of Adults Treated for Endotoxemia and Septic Shock. Spectral Diagnostics. \$37,000.00 CAD. [Clinical Trials]

## Invited Lectures and Presentation

### International

2014 Nov 24-25 **Visiting Professor.** Universitatsspital Basel. Department of Anesthesiology Mechanical Ventilation of the Brain Injured Patient; Mechanical Ventilation After Acute Spinal Cord Injury. Basel-Stadt, Switzerland.

2014 Sept 13 **Invited Speaker.** Neurocritical Care Society Meeting. Neurocritical Care Issues Affecting Mechanical Ventilation Mechanical Ventilation Workshop. Philadelphia, Pennsylvania, United States.

### Local

2015 Oct 28 **Invited Speaker.** New Insights into Subarachnoid Hemorrhage. Critical Care Canada Forum 2015. Toronto, Ontario, Canada.

2015 Oct 28 **Moderator.** Abstract Poster Station 'Mash Up". Critical Care Canada Forum 2015. Toronto, Ontario, Canada.

2015 Oct 28 **Moderator.** Monitoring the Injured Brain. Critical Care Canada Forum 2015. Toronto, Ontario, Canada.

2015 Sep 24 **Moderator.** Components of a Successful Weaning Program - Optimizing Your Patient. CCCF - Weaning Symposium. Toronto, Ontario, Canada. Presenter(s): L. Brochard, E. Goligher, L. Burry, A. Jubran, K. Bosma.

2015 Sep 24 **Expert Panel Speaker.** Group Round Table II. Systems of Care for the Difficult-to-Wean Patient. CCCF - Weaning Symposium. Toronto, Ontario, Canada.

2015 Jun 4 **Invited Speaker.** Neurocritical Care Review. Canadian Critical Care Review. Toronto, Ontario, Canada

2014 Oct 31 **Invited Speaker.** Critical Care Canada Forum 2014. Status Epilepticus – Implications outside Neuro-ICU. Toronto, Ontario, Canada.

2014 Oct 14 **Invited Lecturer.** INSPIRE Rounds - Respiratory Therapy Professional Practice, St Michael's Hospital. Ventilatory Strategies In patients With Spinal Cord Injury. Toronto, Ontario, Canada.

- 2014 Jun 11      **Invited Speaker.** Sunnybrook Critical Care. Delirium Screening in the ICU: The highs and lows of improving sedation stewardship and delirium screening. Toronto, Ontario, Canada.
- 2014 May 29      **Invited Speaker.** University of Toronto. Critical Care Physiology Rounds Should we suppress spontaneous hyperventilation in acute brain injury? Toronto, Ontario, Canada.
- 2014 May 7      **Invited Speaker.** Evolutions Conference: Canadian Association of Critical Care Nurses - Toronto Chapter. Donation After Cardiac Death: Expanding Families' Choices at End-of-Life. Toronto, Ontario, Canada.
- 2014 May 3      **Keynote Speaker.** Cardiorespiratory Physical Therapy and Early Mobility Skills in Acute Care. Increasing Mobility in Critical Care: An Integrated Approach. Toronto, Ontario, Canada.
- 2014 April 4      **Invited Speaker.** University Health Network Department of Anesthesia. Postoperative Delirium in the ICU. Toronto, Ontario, Canada.

### **Honours and Awards**

- 2013 Jul – 2014 Jun      Award for Teaching Excellence. Toronto Western Hospital. University of Toronto.
- 2013 Jul – 2014 Jun      Individual Teaching Performance Award. Postgraduate Level Wightman-Berris Academy.

**Dr. Andrew Steel (University Health Network – Toronto General Hospital)**

**Peer-Reviewed Publication**

**Journal Article**

Jerath A, Ferguson ND, **Steel AC**, Wijeyesundera D, Macdonald J, Wasowicz M. The use of volatile anesthetic agents for long-term critical care sedation (VALTS): study protocol for a pilot randomized controlled trial. *Trials*. 2015 Dec;15. **Coauthor or Collaborator**.

Galvin I, **Steel AC**, Singh J, Lapinsky S, Ferguson N. Critical Care Acquired ARDS in High Risk Patients: A Prospective Observational Study. *Crit Care Med*. 2014 Mar 1. **Coauthor or Collaborator**.

**Book Chapters**

Doherty M, **Steel AC**, Ferguson N. Chapter: Mechanical Ventilation for Acute Respiratory Distress Syndrome. In: Clifford S. Deutschman and Patrick Neligan., editor(s). *Evidence Based Practice of Critical Care Medicine*. 2nd. Philadelphia (United States): Saunders; 2015. **Co-Principal Author**.

**Peer-Reviewed Funding**

2013 Jul – 2015 Jun **Collaborator**. Use of volatile for long-term sedation in critical care patients. Ontario AHSC AFP Innovation Fund. PI: Jerath A. Collaborator(s): Wasowicz M, Ferguson N, Mazer D, Rao V. \$152,936.00 CAD. [Grants]

**Non-Peer-Reviewed Funding**

2015 Sep **Collaborator**. 3rd Rapid Response Symposium, University Health Network, Sunnybrook Hospital, and Mount Sinai Hospital. Massimo. \$4,000.00 CAD. [Industrial Grants] Unrestricted educational grant.

2014 Feb **Collaborator**. 2nd Rapid Response Symposium, University Health Network, and Mount Sinai Hospital. Massimo. \$4,000.00 CAD. [Industrial Grants] Unrestricted educational grant.

**Invited Lectures and Presentations**

**International**

2015 May **Chair**. 28th Annual Meeting and Critical Care Update. Society of Critical Care Anaesthesiologists. Honolulu, Hawaii, United States. Deputy Chair.

2015 Apr **Invited Speaker**. Post-Thoracic Surgery Intensive Care Management. Society of Cardiovascular Anesthesiologists. Washington, District of Columbia, United States. Thoracic Anaesthesia Symposium.

2015 Apr **Invited Lecturer.** Thoracic Ultrasound Workshop. Society of Cardiovascular Anesthesiologists. Washington, District of Columbia, United States. Thoracic Anaesthesia Symposium.

2014 Mar 28 **Invited Speaker.** Post-thoracotomy Intensive Care Management Problem-based learning discussions. New Orleans, Louisiana, United States.

### **Provincial**

2014 June 16 **Presenter.** Use of volatile anaesthetics for long-term sedation in critically ill patients (VALTS): Pre-study survey and development of interprofessional teaching modalities; Scavenging of volatile anaesthetics during long-term sedation of critically ill patients (VALTS). Canadian Anesthesiology Society. St. John's, New Foundland and Labrador.

### **Local**

2014 Nov 1 **Invited Speaker.** The functional Rapid Response Team. Critical Care Canada Forum. Toronto, Ontario, Canada.

2014 Oct 29 **Chair.** Rapid Response Systems Leadership Masterclass. Critical Care Canada Forum. Toronto, Ontario, Canada. Course Director and author for 1 day symposium of workshops and didactic sessions for senior managers in Rapid Response Systems.

### **Honours and Awards**

2014 Jul - 2015 Jun Critical Care Medicine Teaching Award, Toronto General Hospital, Critical Care, Medicine, Faculty of Medicine, University of Toronto



**Dr. Elizabeth Wilcox (University Health Network – Toronto Western Hospital)**

**Peer-Reviewed Publications**

**Journal Articles**

Rittayamai N, **Wilcox ME**, Drouot X, Mehta S, Goffi A, Brochard L. Positive and negative effects of mechanical ventilation on sleep in the ICU. A review with clinical recommendations. *AJCCM*. 2015 Oct. In Press. **Coauthor or Collaborator.**

**Wilcox ME**, Freiheit E, Faris P, Hogan D, Patten S, Anderson T, Ghali W, Knudtson M, Demchuk A, Maxwell C. Coronary artery disease, depressive symptoms and functional decline. *Circulation: Cardiovascular Quality and Outcomes*. 2015 Oct. **Principal Author.**

Wald R, Adhikari NK, Smith OM, Weir MA, Pope K, Cohen A, Thorpe K, McIntyre L, Lamontagne F, Soth M, Herridge M, Lapinsky, Clark E, Garg AX, Hiremath S, Klein D, Mazer CD, Richardson RM, **Wilcox ME**, Friedrich JO, Burns KE, Bagshaw SM. Comparison of standard and accelerated initiation of renal replacement therapy in acute kidney injury. *Kidney International*. 2015 Jul 8. Ahead of print. **Coauthor or Collaborator.**

Garland A, Gershengorn HB, Marrie RA, Reider N, **Wilcox ME**. A Practical, Global Perspective on Using Administrative Data to Conduct ICU Research. *The Annals of Thoracic Surgery*. 2015 Jul 6. Ahead of print. **Coauthor or Collaborator.**

Cameron J, Chu L, Matte A, Tomlinson G, Chan L, Thomas C, Friedrich J, Phil D, Mehta S, Lamontagne F, Levasseur M, Ferguson N, Adhikari NJ, Rudkowski J, Meggison H, Skrobik Y, Flannery J, Bayley M, Batt J, dos Santos C, Abbey S, Tan A, Lo V, Mathur S, Parotto M, Morris D, Flockhart L, Fan E, Lee C, **Wilcox ME**, Ayas N, Choong K, Fowler R, Rubenfeld G, Scales D, Sinuff T, Cuthbertson B, Rose L, Robles P, Burns S, Cypel M, Singer L, Chaparro C, Chow CW, Keshavjee S, Brochard L, Hebert P, Slutsky A, Marshall J, Cook D, Herridge M. The RECOVER Program: One-Year Disability in Critically Ill Patients Mechanically Ventilated for 7 Days. *New England Journal of Medicine*. 2014 Dec 15. **Coauthor or Collaborator.**

Wald R, Adhikari NJ, Smith O, Weir M, Pope K, Cohen A, Thorpe K, McIntyre L, Lamontagne F, Soth M, Herridge M, Lapinsky S, Clark E, Garg A, Hiremath S, David K, Mazer D, Richardson R, **Wilcox ME**, Friedrich J, Burns KEA, Bagshaw S. STandard vs Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury (STARRT-AKI): A pilot randomized controlled trial of two strategies *Journal of the American Society of Nephrology*. 2014 Dec. **Coauthor or Collaborator.**

**Wilcox ME**, Gershengorn H, Marrie RA, Reider N, Garland A. ICU Research Using Administrative Data: State of the Art and Primer. 2014 Dec. **Principal Author.**

**Wilcox ME**, Anwar S, Ferguson N, Brodie D, Taglione M, Fan E. Long-term Outcomes after Extracorporeal Life Support for Acute Respiratory Failure: A Systematic Review of the Literature. 2014 Dec. **Principal Author.**

**Wilcox ME**, Rubenfeld G, Black S, Jackson S, Ely W, Mikkelsen M, Hopkins R, McAndrews. Determining cognitive impairment after intensive care unit admission: Defining cognitive impairment and identifying important co-variables. 2014 Dec. **Principal Author**.

**Wilcox ME**, Charbonney E, d'Empaire PP, Duggal A, Pinto R, Javid A, Dos Santos C, Rubenfeld GD, Sutherland S, Liles WC, Glogauer M. Oral neutrophils are an independent marker of the systemic inflammatory response after cardiac bypass. *J Inflamm*. 2014 Oct 1;11(1);32. **Principal Author**.

**Wilcox ME**, Harrison DA, Short A, Jonas M, Rowan KM. Comparing mortality among adult, general intensive care units in England with varying intensivists cover patterns: a retrospective cohort study. *Crit Care*. 2014 Aug 14;18(4);491. **Principal Author**.

**Wilcox ME**, Chong CA, Stanbrook MB, Tricco AC, Wong C, Straus SE. Does this patient have an exudative pleural effusion? The Rational Clinical Examination systematic review. *JAMA*. 2014 Jun 18;311(23);2422-31. **Principal Author**.

### **Abstracts**

Cameron J, Chan L, Czerwonka A, Chu L, Matte A, Tomlinson G, Thomas C, Ferguson N, Mehta S, Friedrich J, Adhikari A, Fowler A, Lamontagne F, Rudkowski J, Meggison H, Ayas N, Skrobik Y, Batt J, Santos C, Flannery J, Abbey S, Rubenfeld G, Scales D, Sinuff T, Cuthbertson B, Fan E, Slutsky A, Levasseur M, Bayley M, Lee C, Lo V, Mathur S, Tan A, Wilcox **ME**, Marshall J, Cook D, Herridge M. Caregiver Well-Being Is Dependent On Caregiver Mastery, Social Support And Participation In Valued Activities: Towards RECOVER Study. *American Thoracic Society Journals*. 2014 May 1. **Coauthor or Collaborator**.

Herridge M, Chu L, Matte A, Chan L, Tomlinson G, Ferguson N, Mehta S, Friedrich F, Adhikari, N, Fowler R, Lamontagne L, Rudkowski J, Meggison H, Skrobik Y, Batt J, Dos Santos C, Flannery J, Abbey S, Rubenfeld G, Scales D, Sinuff T, Cuthbertson B, Fan E, Slutsky A, Levasseur M, Bayley M, Lee C, Lo V, Mathur S, Tan A, Thomas C, **Wilcox ME**, Marshall J, Cook D, Cameron J. Long-Term Patient Outcomes After Prolonged Mechanical Ventilation: The Towards RECOVER Study. *American Thoracic Society Journals*. 2014 May 1. **Coauthor or Collaborator**.

### **Case Reports**

Westlund J, M **Wilcox ME**, Sharkawy A, Duplisea K, Dresser L. A severe case of Plasmodium vivax malaria. (Canada): *PulmCCM*; 2015 Jan 28. **Coauthor or Collaborator**.

**Wilcox ME**, Poutanen SM, Kraiden S, Agid R, Kiehl TR, Tang-Wai DF. A case of rabies encephalitis: new dog, old tricks. 2014 Mar 25. **Principal Author**.

### **Editorials**

**Wilcox ME**, Rubenfeld GD. Is critical care ready for an economic surrogate endpoint? *Critical Care*. 2015 Jun 11;19(1):248. doi: 10.1186/s13054-015-0947-0. Co-Principal Author.

**Wilcox ME**, Wunsch H. Identifying and targeting ICU survivors at risk for excess morbidity and premature death. *Annals of American Thoracic Society*. 2014 Dec. **Principal Author**.

**Wilcox ME**, Wiener-Kronish JP. Telemedicine in the intensive care unit: effect of a remote intensivist on outcomes. JAMA Intern Med. 2014 Jul;174(7);1167-9. **Principal Author.**

### Peer-Reviewed Fundings

- 2015 Aug - 2016 Aug **Co-Investigator.** CCDR Pilot Project Fund. Centre for Collaborative Drug Research (CCDR). PI: Burry L. \$50,000.00 CAD. [Grants]
- 2015 Jul - 2020 Jun **Co-Investigator.** The NEUROlogically-impaired extubation Timing Trial (NEURO-ETT). Canadian Institutes of Health Research (CIHR). PI: Ferguson N, Scales D. \$880,000.00 CAD. [Grants]
- 2014 Dec - 2018 Jun **Co-Investigator.** STARRT-AKI: STandard versus Accelerated initiation of Renal Replacement Therapy in Acute Kidney Injury. Canadian Institutes of Health Research (CIHR). Industry-partnered Collaborative Research. 334912. PI: Wald R, Bagshaw S. \$220,996.00 CAD. [Clinical Trials]
- 2014 Jul - 2015 Jun **Site Investigator.** OPTIMAL-AKI: OPTIMAL Selection for and Timing to Start Renal Replacement in Critically Ill Older Patients with Acute Kidney Injury. [Grants]
- 2014 Jul - 2015 Jun **Site Investigator.** OVATION: Optimal VAssopressor Titration: A pilot random controlled trial. [Grants]
- 2014 Jan - 2016 Dec **Co-Principal Investigator.** COGWELL: Cognitive outcomes and wellness in survivors of critical illness. Physicians Services Incorporated Foundation (The) (PSI). Collaborator(s): Rubenfeld G. \$139,000.00 CAD. [Grants]

### Invited Lectures and Presentation

#### Local

- 2014 Oct 30 **Invited Speaker.** Critical Care Canada Forum. Cognitive Outcomes: The Causes. Toronto, Ontario, Canada.
- 2014 Mar 26 **Invited Speaker.** Medical Grand Rounds. University Health Network. Cognitive dysfunction after critical illness: Is the ICU to blame? Toronto, Ontario, Canada.