

S U M M E R 2 0 1 7



UNIVERSITY OF  
TORONTO

Interdepartmental  
Division of Critical  
Care Medicine



# IDCCM NEWSLETTER

Issue 5



## *Welcome to our Summer IDCCM Newsletter*

A lot to celebrate at the end of this academic year, and congratulations to our new graduated colleagues!

We need to celebrate the work done by our new Program Director and the Education Committee. Everybody worked hard for collectively offering a great program and be well evaluated by the internal review committee. Thanks a lot to Dave Hall and all the education team.

Thanks to the terrific work done by Margaret Herridge and Hannah Wunsch, our research vision is progressively taking place: we had a highly successful NABOR session and the next one is coming in October on Grant writing; we are preparing our upcoming Alliance Day (please KEEP the date, see below) and the launch of the first IDCCM scholar operational grant. The Art Slutsky Day was a fantastic illustration of the quality of your research, and was also a day of fun and excitement!

Please have a flavor of the awards received by our members and enjoy a selection of some highlights from our publications (and sorry we could not show more).

We are expanding our Division membership by offering cross appointment to colleagues from other disciplines or Departments already tightly collaborating with us. We also want to take the opportunity to acknowledge the multidisciplinary nature of our team work!

We wish to celebrate recruitments and promotions' showing the dynamic nature of our division as well as its promises.

Summer is also time for vacations... We wish you all happy and relaxing vacations! I also hope that your professional activity is as rewarding for you as possible. This is really one of the objectives of being a strong dynamic and collaborative Division!

*Dr. Laurent Brochard*

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## Save the Date!

### IDCCM Alliance Faculty Day

**September 13, 2017**  
**8:00 am - 4:00 pm**

Vivian & David Campbell  
Conference Facility, Munk School of  
Global Affairs,  
Trinity Site, 1 Devonshire Place

### CaRMS Interviews

**October 13, 2017**  
**8:00 am - 4:00 pm**

Location: TBA

### Nuts And Bolts of Research (NABOR): Grant Writing

**October 19, 2017**  
**1:00 pm - 5:00 pm**

MaRS Discovery District  
Conference Room 2  
101 College Street



## Divisional Awards



Dr. Laura Hawryluck

Received the 2017 IDCCM Humanitarian Award – for outstanding contribution to improving the welfare of others through patient care and scholarly activity.



Dr. Andrew Steel

Received the 2017 IDCCM John Granton Award – in recognition of his outstanding contribution to Critical Care Education.



Dr. Oshri Zaulan

Received the 2017 IDCCM Simon Abrahamson Award – for being an exemplary clinician, teacher, learner, and humanitarian. He developed an interdisciplinary simulation program termed “immersive reality” and did humanitarian work in Haiti and Uganda.



## External Awards



### Dr. Robert Fowler

Received the 2017 Royal College Teasdale-Corti Humanitarian Award.

Working alongside national and Médecins Sans Frontières (MSF) health care workers at Donka Hospital in Conakry, Guinea, Rob and his colleagues pushed for new clinical protocols for the care of patients with Ebola, which was historically associated with a 70-90% mortality rate. They focused on a much more aggressive, supportive method of care than had commonly been delivered to these patients. This is the kind of care that we take for granted in Canada — fluid resuscitation for severe dehydration, and support for electrolyte abnormalities and organ dysfunctions that accompany critical illness. Rob and his colleagues showed the world that these strategies would help patients survive Ebola long enough for their own body to clear the virus.



### Dr. Laura Hawryluck

Received the 2017 Medico-Legal Society Award.

This award is the highest expression of esteem which the Society can convey and is intended to honour those members of the medical, legal or scientific community who have made a significant contribution to their profession as well as either to the Society or the community at large, and whose contributions are consistent with the values of the Society.



### Dr. Sara Gray

Congratulations to our own Dr. Sara Gray for an outstanding and very inspired TED talk on 'Voices in my Head' given to 2500 Das SMACC delegates at the Berlin Tempodrom in June.

Sara received uniformly rave reviews on her engaging talk on the importance of self-compassion. Congratulations Sara! We are all very proud of you!!



## Dr. James Downar

Received the 2017 Palliative and End-of-Life Care Innovation Award from the Canadian Foundation of Healthcare Improvement.

The award was for an automated tool to predict one-year mortality among inpatients.



## Dr. Dominique Piquette

Received the Sunnybrook Educational Research Award.

## Dr. Michael Sklar

Receive the 2017 Marion and Earl Orser Prize in Anesthesia and Sleep Sciences Award – Clinical Sciences Category: Effort to Breathe With Various Spontaneous Breathing Trial Techniques – A Physiological Meta-analysis.

## Drs. Viau-Lapointe, Geagea, Artigas, Alali, Hamidi, Ferreyro, Al-Fares, Mehta

Co-Learning Curriculum QI Award: Outstanding Elevator Pitch: Critical Care 2 Reducing routine blood testing in the medical-surgical ICU of Mount Sinai Hospital

Honourable Mention Poster – Department of Medicine



# New Positions and University Promotions

## IDCCM

**Dr. Neill Adhikari**, Assistant Professor, Sunnybrook Hospital

**Dr. Najma Ahmed**, Professor, St. Michaels Hospital

**Dr. Andre Carlos Amaral**, Associate Professor, Sunnybrook Hospital

**Dr. Eddy Fan**, Associate Professor, University Health Network

**Dr. Niall Ferguson**, Professor, University Health Network

**Dr. Robert Fowler**, Professor, Sunnybrook Hospital

**Dr. Ewan Goligher**, Assistant Professor, Sinai Health System

**Dr. Warren Lee**, Associate Professor, St. Michael's Hospital

**Dr. Victoria McCredie**, Assistant Professor, University Health Network

**Dr. Laveena Munshi**, Assistant Professor, Sinai Health System

**Dr. Beverly Orser**, Chair, Department of Anesthesia



## CIHR Grant Awards 2017

### Dr. Karen Burns

Frequency of Screening and SBT Technique Trial: The FAST Trial  
Operating Grant, \$153,771(2 years)

### Drs. Brian Cuthbertson

The SuDDICU Study – A Study of the Impact of preventive antibiotics (SDD) on patient outcome and antibiotic resistance in the critically ill in intensive care  
Operating Grant, \$100,000 (1 year)  
SPOR Innovative Clinical Trial, \$3,000,000 (4 years)

### Dr. Brian Kavanagh

Acute Lung Injury – Directors from Therapeutic Hypercapnia  
Project Grant, \$688,500 (5 years)

Structural and Functional MRI in Preclinical Models of Bronchopulmonary Dysplasia  
Project Grant, \$487,775 (5 years)

### Dr. Louise Rose

Core Outcome Set Development for Effectiveness Trials of Interventions to Prevent or Treat Delirium (del-CORs)  
Project Grant, \$271,576 (3 years)



### Dr. Warren Lee

Awarded as Canada Research Chair.

This is a CIHR Canada Research Chair (Tier 2) that supports Warren's research program into the permeability of the endothelium, the innermost lining of all blood vessels. Increased permeability of blood vessels is a feature of critical illness like ARDS and also determines the pathogenesis of diseases like atherosclerosis.





## Highlights from Faculty Publications

### [Association Between US Norepinephrine Shortage and Mortality Among Patients With Septic Shock.](#)

Emily Vail, Hayley Gershengorn, May Hua, Allan Walkey, Gordon Rubenfeld, Hannah Wunsch [JAMA](#). 2017 Apr 11;317(14):1433-1442.

### [DJ-1/PARK7 Impairs Bacterial Clearance in Sepsis](#)

Hajera Amatullah, Yuexin Shan, Brittany Beauchamp, Patricia Gali, Sahil Gupta, Tatiana Maron-Gutierrez, Edwin Speck, Alison Fox-Robichaud, Jennifer Tsang, Shirley Mei, Tak Mak, Patricia Rocco, John Semple, Haibo Zhang, Pingzhao Hu, John Marshall, Duncan Stewart, Mary-Ellen Harper, Patricia Liaw, Conrad Liles, Claudia dos Santos on behalf of the Canadian Critical Care Translational Biology Group. [Am J Respir Crit Care Med](#) 2017 [Am J Respir Crit Care Med](#). 2017 Apr 1;195(7):889-905.

### [Geo-economic variations in epidemiology, patterns of care, and outcomes in patients with acute respiratory distress syndrome: insights from the LUNG SAFE prospective cohort study.](#)

John G Laffey, Fabiana Madotto, Giacomo Bellani, Tàì Pham, Eddy Fan, Laurent Brochard, Pravin Amin, Yaseen Arabi, Ednan K Bajwa, Alejandro Bruhn, Vladimir Cerny, Kevin Clarkson, Leo Heunks, Kiyoyasu Kurahashi, Jon Henrik Laake, Jose A Lorente, Lia McNamee, Nicolas Nin, Jose Emmanuel Palo, Lise Piquilloud, Haibo Qiu, Juan Ignacio Silesky Jiménez, Andres Esteban, Daniel F McAuley, Frank van Haren, Marco Ranieri, Gordon Rubenfeld, Hermann Wrigge, Arthur S Slutsky, Antonio Pesenti, on behalf of the LUNG SAFE Investigators and the ESICM Trials Group. [Lancet Respir Med](#). 2017 Jun 14. pii: S2213-2600(17)30213-8

### [Discriminative Accuracy of Physician and Nurse Predictions for Survival and Functional Outcomes 6 Months After an ICU Admission.](#)

Detsky ME, Harhay MO, Bayard DF, Delman AM, Buehler AE, Kent SA, Ciuffetelli IV, Cooney E, Gabler NB, Ratcliffe SJ, Mikkelsen ME, Halpern SD. [JAMA](#). 2017 Jun 6;317(21):2187-2195.

### [Middle East Respiratory Syndrome.](#)

Arabi YM, Balkhy HH, Hayden FG, Bouchama A, Luke T, Baillie JK, Al-Omari A, Hajeer AH, Senga M, Denison MR, Nguyen-Van-Tam JS, Shindo N, Birmingham A, Chappell JD, Van Kerkhove MD, Fowler RA. [N Engl J Med](#). 2017 Feb 9;376(6):584-594.

### [Heart Rate and Blood Pressure Centile Curves and Distributions by Age of Hospitalized Critically Ill Children.](#)

Eytan D, Goodwin AJ, Greer R, Guerguerian AM, Laussen PC. [Front Pediatr](#). 2017 Mar 17;5:52.

### [Fifty years of research in ARDS. The Epidemiology of Acute Respiratory Distress Syndrome. A 50th Birthday Review.](#)

Pham T, Rubenfeld GD. [Am J Respir Crit Care Med](#). 2017 Apr 1;195(7):860-870.

### [Fifty Years of Research in ARDS. Setting Positive End-Expiratory Pressure in Acute Respiratory Distress Syndrome.](#)

Sahetya SK, Goligher EC, Brower RG. [Am J Respir Crit Care Med](#). 2017 Jun 1;195(11):1429-1438

### [Fifty Years of Research in ARDS. Insight into Acute Respiratory Distress Syndrome. From Models to Patients.](#)

Laffey JG, Kavanagh BP. [Am J Respir Crit Care Med](#). 2017 Jul 1;196(1):18-28



## New IDCCM Education Program Director



**Dr. David Hall**

Program Director  
Adult Critical Care Medicine

Dr. David Hall was appointed as the new Program Director of the Adult Critical Care Medicine Program of the Interdepartmental Division of Critical Care Medicine on January 1st, 2017.

David Hall, MD, PhD, Assistant Professor in Medicine, University of Toronto is an Intensivist and Respiriologist at St. Michael's Hospital. David completed medical school at the University of Toronto in 2000. He went on to complete residency training in Internal Medicine, followed by fellowship training in Respiriology and Critical Care (2006) at the University of Toronto. He completed the University of Toronto Department of Medicine Master Teacher Program in 2007. David has been committed to education for a long time and has received numerous teaching awards, including being recognized as Outstanding Teacher for Critical Care Medicine at St. Michael's Hospital several times as well as in Respiriology. Also, he has been the Respiriology Fellows Education Site Director at St. Michael's from 2008 to 2015 and is currently the Critical Care Resident Educational Site Director at St. Michael's Hospital.

David is a wonderful colleague and we are delighted to have him as the new Program Director for IDCCM. Congratulations!

*Dr. Laurent Brochard*





## Art Slutsky Day Celebration of Residents and Fellows

Art Slutsky Day provided an excellent forum to highlight some of the exceptional research done by our Critical Care residents. We were also able to celebrate our graduating trainees.

- Abdulrahman Al-Fares
- Abdulaziz Alali
- David Cape
- Niall Filewod
- Anna Geagea
- David Katz
- Tiffany Lee
- Ingrid Morgan
- Sameer Vakani

Please join me in congratulating our new Chief Residents and Fellows. This year a number of trainees have chosen to share the job of Chief Fellow:

**Martin Urner (UHN)**  
**Bruno Ferreyro (UHN)**  
**Carmen Lopez Soto (SHSC)**

The race for Chief Resident resulted in an unprecedented (I believe) tie and the candidates have chosen to share the duties:

**Brian Buchan**  
**David Paskar**

The Residency Program Committee and I look forward to working with our new chiefs. Congratulations!

I also want to thank David Katz and Mika Hamilton, our outgoing chiefs, for their tremendous contributions to the program over the last year.

### Welcome 2017-2018 Residents!

#### Year 1

Dr. Lior Bibas  
Dr. Jordan Nantais  
Dr. Maude Peretz-Larochelle  
Dr. Jenna Spring  
Dr. Alexander White  
Dr. Christopher Yarnell

#### Year 2

Dr. James East  
Dr. Brian Buchan  
Dr. Pierre-Alexis Lepine  
Dr. Maxime Pichette  
Dr. Juline Viau-Lapointe  
Dr. Markus Ziesmann  
Dr. Christian Turner  
Dr. David Paskar

*Dr. David Hall*



## Art Slutsky Research Day June 20, 2017



Art Slutsky Day 2017 was another wonderful opportunity to pay tribute to the leadership and legacy of Art Slutsky and to celebrate the incredible achievements and stature of our diverse pediatric, adult and interprofessional critical care community across the University of Toronto. This year, we launched the Art Slutsky Day festivities with a very special event the evening before that was designed to celebrate the graduating fellow group and to bring faculty and trainees together for some final good-byes, good wishes and good cheer! This Inaugural Brew Pub evening was held at the Mill St Brew Pub in the Distillery District and proved to be a very fun evening and the start of a new IDCCM tradition!

The AS Day had a record attendance this year of 152 faculty, trainees, and other colleagues at the Munk School of Global Affairs. Faculty judges vetted 45 abstracts encompassing basic and clinical science, quality, physiology and education contributed by our adult and pediatric trainees. The quality and depth of the academic work was uniformly exceptional and we have so much to be proud of and to celebrate as a divisional group.

### Distinguished Speakers

**Dr. Daniel Talmor**- Chair of the Department of Anesthesia and Critical Care at Beth Israel Deaconess Medical Centre and the Edward Lowenstein Professor of Anesthesia at Harvard Medical School-was very kind to serve as our visiting professor the day before AS Day and to also join in on the celebratory Brew Pub festivities. His talk on “Pulmonary Physiology at the bedside *or* How Art Slutsky Made Me Ignorant” was a provocative and stimulating discussion combining an insightful review of pulmonary physiology with the importance of ignorance driving scientific discovery. It was a very memorable and stimulating talk!

Our own **Dr. Laurent Brochard** inspired the IDCCM with his “State of Research in the IDCCM “ overview and highlighted all of the international achievements of the university –wide group over the past year. He also shared an extraordinary statistic that the IDCCM is second only to Harvard University in terms of research productivity- a truly remarkable achievement!

We wanted to showcase some of our valued faculty who received academic promotion this past year and use the AS Day platform going forward to celebrate individuals and what each brings to our larger university community.

**Dr. Eddy Fan** gave a wonderful and comprehensive overview of his program on extracorporeal life support titled “Extracorporeal Support for Respiratory Failure in Toronto and Beyond.”



**Dr. Andre Amaral** paid tribute to the powerful impact of multidisciplinary and interprofessional teamwork in his excellent and engaging talk on “A brief (personal) story of Quality Improvement.”

**Dr. Gail Annich** shared her very valuable insights and considerable expertise in extracorporeal support and anticoagulation in pediatric patients in her compelling and rich talk on “The Future of Circuitry and Anticoagulation in ECLS.”

**Dr. Rob Fowler** highlighted the seminal academic and humanitarian contributions by our IDCCM community to selflessly better the lives of those in crisis and often in under resourced settings in his riveting talk “Critical Care Sans Frontières.”

### Oral and Abstract Presentation Awards

Our very generous abstract judges were tasked with identifying the top 9 abstracts and the authors were invited to give an oral presentation at the AS Day. The lead authors of the top 9 abstracts were:

1. **Dr. A. Mohammad**
2. **Dr. M. Hamilton**
3. **Dr. L. Kolodzey**
4. **Ms. H. Raheel**
5. **Dr. D. Rozenberg**
6. **Dr. T. Yoshida**
7. **Dr. A. Varkouhi**
8. **Dr. B. Katira**
9. **Dr. J. Viau-Lapointe**

From this group of 9 abstracts, the IDCCM research executive with the assistance of our Visiting Professor Dr. Danny Talmor- awarded 2 prizes.

Congratulations to:

1<sup>st</sup> Place Overall Best Abstract – **Dr. Bhushan Katira**

2<sup>nd</sup> Place Overall Best Abstract – **Ms. Hira Raheel**

The remaining abstracts were delivered as poster presentations and judged by a separate generous group of judges!

Congratulations to the winners from each of our abstract categories:

Best Abstract (Clinical Practice) –  
**Dr. Daniel Marinescu**

Best Abstract (Basic & Translational Science) –  
**Dr. Diana Islam**

Best Abstract (Quality Improvement) –  
**Dr. Pierre-Alexis Lepine**

Best Abstract (Physiology) – **Dr. Lu Chen**

**Thanks to All of our Judges who donated their precious time!!**

Abstract Judges:

Basic Science Category  
Dr. Bilal Ansari  
Dr. Claudia Dos Santos

Clinical Research/Health Services Research Category  
Dr. Victoria McCredie  
Dr. Geeta Mehta  
Dr. Orla Smith

Physiology Category  
Dr. Ewan Goligher  
Dr. Max Meineri  
Dr. Darlene Reid

Quality Category  
Dr. Alberto Goffi  
Dr. John Granton  
Dr. Sara Gay

Systematic Review/Case Report/Education Category  
Dr. Robert Fowler  
Dr. Mjaye Mazwi  
Dr. Dominique Piquette

Poster Judges:

Basic Science Category I  
Dr. Jane Batt  
Dr. Haibo Zhang



Clinical Research Category  
Clinical Research/Health Services Research Category I  
Dr. Matteo Parotto  
Dr. Damon Scales

Clinical Research/Health Services Research Category II  
Dr. Geeta Mehta  
Dr. Laveena Munshi

Systematic Review/Case Report/Education Category  
Dr. Neill Adhikari  
Dr. Michael Detsky

Physiology Category  
Ms. Vagia Campbell  
Dr. Lorenzo Del Sorbo

Quality Category  
Dr. Jeffrey Singh  
Dr. Elizabeth Wilcox

Oral Presentation Judges:

Dr. Laurent Brochard  
Dr. Margaret Herridge  
Dr. Hannah Wunsch  
Dr. Daniel Talmor

IDCCM Divisional Awards

The residents and clinical fellows awarded the *John Granton Award*, for outstanding contribution to Critical Care Education, to **Dr. Andrew Steel** in recognition of his significant commitment to and support of the trainees during his tenure as IDCCM Program Director.

The Education Program Committee awarded the *Simon Abrahamson Award*, for outstanding academic performance in Critical Care Medicine to **Dr. Oshri Zaulan** who was also recognized for his collegiality and leadership.

The IDCCM Research Executive bestowed the *Humanitarian Award* for continued and outstanding contribution to improving the welfare of others through patient care and scholarly activity to **Dr. Laura Hawryluck** for her longstanding and selfless dedication to outreach and education in developing communities.

The following *Awards for Individual Teaching Excellence* were also made by the trainees:

Toronto Western Hospital – **Alberto Goffi**  
Toronto General Hospital – **Andrew Steel**  
Mount Sinai Hospital – **Christie Lee**  
St. Michael's Hospital – **Natalie Wong**  
Sunnybrook Health Sciences Centre –  
**Damon Scales**  
The Hospital for Sick Children – **Brian Kavanagh**  
Community Hospital (Toronto East Health Network) – **Alvin Chang**

Please take the time to congratulate your colleagues for these great distinctions. They are so deserving of this recognition and all they bring to our IDCCM that enriches our academic program.

Thanks to everyone who worked so hard to make this year's AS Day such a great success! I would like to extend a very special note of appreciation to *Louisa Matela* for her energy and enthusiasm and her enormous contribution to helping the day run smoothly and seamlessly. Thanks Louisa! Thanks as well to *Stephanie Nardella* for her invaluable assistance.

We look forward to seeing you all at the Mill St. Brew Pub night and the AS Day in June 2018!! Thanks for coming to support the day and helping to acknowledge the hard work and celebrate the achievements of our University of Toronto IDCCM community!!

Margaret Herridge  
Director of Research- IDCCM  
On behalf of the IDCCM Research Executive





Dr. Art Slutsky



Dr. Laurent Brochard



Dr. Daniel Talmor  
Keynote Speaker



Dr. Eddy Fan

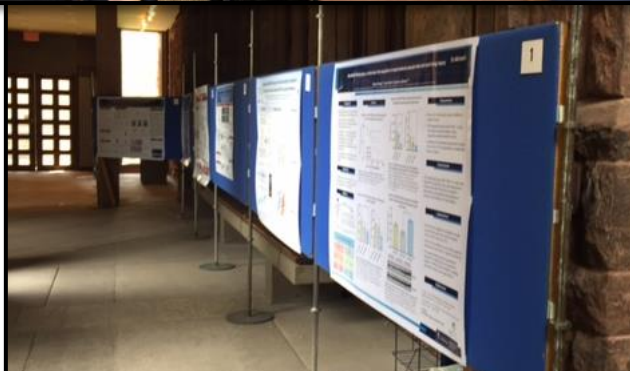


Dr. Andre Amaral



Dr. Rob Fowler









Dr. Bhushan Katira  
1<sup>st</sup> Place Overall Abstract



Dr. Hira Raheel  
2<sup>nd</sup> Place Overall Abstract



Dr. Daniel Marinescu  
Best Clinical Research Poster



Dr. Diana Islam  
Best Basic Science Poster



Dr. Pierre-Alexis Lépine  
Best Quality Improvement Poster



Dr. Lu Chen  
Best Physiology Poster



Dr. Alberto Goffi  
Individual Teaching Excellence Award  
Toronto Western Hospital



Dr. Damon Scales  
Individual Teaching Excellence Award  
Sunnybrook Health Sciences Centre



Dr. Brian Kavanagh  
Individual Teaching Excellence Award  
The Hospital for Sick Children



Dr. Oshri Zaulan  
Simon Abrahamson Award

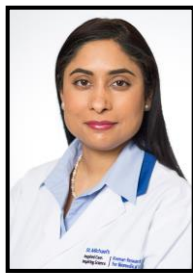


L-R: Drs. Sameer Vakani, Anna Geagea, Tiffany Lee, Niall Filewod, Ingrid Morgan, Abdulaziz Alali, David Katz, David Hall





## Fellows in Research



Dr. Jatinder Juss

### Ongoing Research Activities:

Immune cell function/dysfunction is centrally implicated in the pathogenesis of ARDS and sepsis. My CIHR grant supports development of 1) novel diagnostic tools to permit dynamic monitoring of the complex immunologic and metabolic changes that shape the clinical course of life-threatening critical illness and 2) potentially transformative extracorporeal device technology that re-establishes immune homeostasis in patients with ARDS and sepsis.

**Grants:** CIHR Fellowship and Pilot Project Grant

### Awards:

1. American Thoracic Society Ziskind Clinical Research Scholar
2. American Thoracic Society Fellows Track Symposium Award
3. CIHR travel award

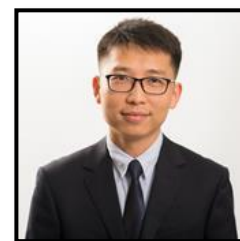
### Publications:

1. Blood and alveolar neutrophils from patients with ARDS have a distinctive functional and transcriptional profile and are resistant to phosphoinositide 3-kinase inhibition. **American Journal of Respiratory and Critical Care Medicine**. 2016;194(8):961-973. DOI: 10.1164/rccm.201509-1818OC.
2. Hypoxia upregulates neutrophil degranulation and potential for tissue injury. **Thorax**. 2016 Nov;71(11):1030-1038. doi: 10.1136/thoraxjnl-2015-207604.
3. Eros, a novel trans-membrane protein, controls the reactive oxygen burst and is essential for innate immunity. **Journal of Experimental Medicine**. 2017 Apr 3;214(4):1111-1128. DOI:10.1084/jem.20161382.
4. Pathogen evasion of neutrophil extracellular traps (NETs). **American Journal of Respiratory Cell and Molecular Biology**. 2017 Apr;56(4):423-431. DOI: 10.1165/rcmb.2016-0193PS
5. Hypoxia causes IL-8 secretion, Charcot Leyden crystal formation, and suppression of corticosteroid-induced apoptosis in human eosinophils J Immunol. **Journal of Clinical and Experimental Medicine**. 2017 Jun;47(6):770-784. DOI: 10.1111/cea.12877

### Ongoing Research Activities:

Dr. Lu Chen has implemented a Quality Improvement program based on a systematic measurement of respiratory mechanics in all patients ventilated for ARDS. He worked closely with the Respiratory Therapy Team at St Mike's to make it become a routine practice and also started the same measurements in 4 other ICUs in Europe and China. These data are feeding a large ARDS registry. He recently showed that these measurements helped the clinical management of the patients.

Dr. Chen is running a series of projects involving patients with ARDS as part of his Master program.



Dr. Lu Chen

### Publications:

1. Airway Closure in Acute Respiratory Distress Syndrome: An Underestimated and Misinterpreted Phenomenon. Chen L, Del Sorbo L, Grieco DL, Shklar O, Junhasavasdikul D, Telias I, Fan E, Brochard L. *Am J Respir Crit Care Med*. 2017 May 30. doi: 10.1164/rccm.201702-0388LE.
2. Implementing a bedside assessment of respiratory mechanics in patients with acute respiratory distress syndrome. Chen L, Chen GQ, Shore K, Shklar O, Martins C, Devenyi B, Lindsay P, McPhail H, Lanys A, Soliman I, Tuma M, Kim M, Porretta K, Greco P, Every H, Hayes C, Baker A, Friedrich JO, Brochard L. *Crit Care*. 2017 Apr 4;21(1):84. doi: 10.1186/s13054-017-1671-8.
3. Fifty Years of Research in ARDS. Respiratory Mechanics in Acute Respiratory Distress Syndrome. Henderson WR, Chen L, Amato MB, Brochard LJ. *Am J Respir Crit Care Med*. 2017 Mar 17. doi: 10.1164/rccm.201612-2495CI.
4. Lung volume assessment in acute respiratory distress syndrome. Chen L, Brochard L. *Curr Opin Crit Care*. 2015 Jun;21(3):259-64.



## ARISE: Achieving Resilience in Acute Care Nurses

Nursing work and hospital environments are inherently stressful and nurses are vulnerable to occupational and compassion fatigue and burnout, experiences which can result in negative consequences for nurses and patients. Recognizing this, the Critical Care Societies Collaborative recently released a statement calling for action from stakeholders to raise awareness of burnout and mitigate occurrence. In addition, the National Academy of Medicine recently announced the launch of an initiative to build a collaborative platform to support and improve clinician well-being and resilience. Resilience is a key element that can sustain nurses through difficult and challenging work environments. Nurses can actively develop and strengthen their personal resilience to mitigate stressors both at work and at home. Collective resilience can help organizations meet their strategic human resources and patient care goals. Different interventions and combinations of interventions to enhance nursing health, wellness, and resilience have been evaluated in the literature. Given the variety of stressors that nurses face, one size fits all strategies are not recommended. Most promising are multicomponent interventions that include self-care activities such as exercise, mindfulness, and creative and reflective writing, with elements of peer connectivity and support. We conducted a randomized controlled trial to test the effects of a multicomponent health and wellness intervention (ARISE) on resilience, compassion fatigue, occupational fatigue, and other health and wellness outcomes, in critical care and neuro-trauma nurses at St. Michael's Hospital. The project was funded by the Canadian Association of Critical Care Nurses Research Grant and the Canadian Critical Care Research Coordinators Research Grant. Results from our study will be available this Fall.



Photo credit: SMH

*Orla Smith, RN, PhD  
Kayleigh Faulkner, RN, MN  
St. Michael's Hospital*



RESUSCITATION  
R

SickKids will be partnering with the American Heart Association Get With the Guidelines® (AHA-GWTG) Resuscitation Program as one of the first international sites.

Since 2010, the AHA-GWTG Resuscitation Program is a national hospital wide quality program that incorporates quality and research resources focused on improving outcomes for inpatient events involving cardiopulmonary resuscitation: cardiac arrests, acute respiratory compromises, post-cardiac arrest care, and medical emergency team responses.

Drs. Laussen, Parshuram, and Guerguerian have been volunteers for the Pediatric Research Task Force's organization.

If you have any questions about the opportunities both for pediatric or adult related research or quality projects related to this endeavor, please contact them directly.

*Dr. Anne-Marrie Guerguerian*



UNIVERSITY OF  
TORONTO

Interdepartmental  
Division of Critical  
Care Medicine



## SAVE THE DATE

# NUTS AND BOLTS OF RESEARCH (NABOR): GRANT WRITING

Thursday, October 19, 2017  
1:00 p.m. – 5:00 p.m.

MaRS Discovery District  
Conference Room 2  
101 College Street

Geared for anyone planning on writing a first grant, or early in their career with less experience with grant writing.

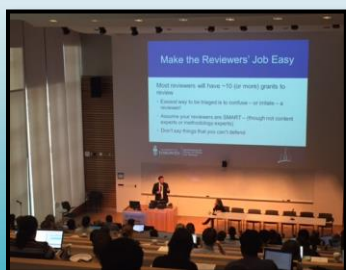
**Limited attendance:** 40 people

**Moderators:** Laurent Brochard and Hannah Wunsch

**Speakers:** TBD

- What are CIHR, PSI, and TVN and what types of grants go to each?
- Consider the NIH: basics of grants and applying
- The nitty gritty of Specific Aims
- How to make your grant really readable
- Creating a grant budget
- Mock grant review panel (whole group)

RSVP: [Louisa Matela](#)







## IDCCM End of Year Celebration June 19th, Mill St. Brew Pub Distillery District



Photo credits:  
Drs. Brochard, Chen, Lapinsky





## UHN Fellows Year End Party June 1st, Buonanotte Restaurant

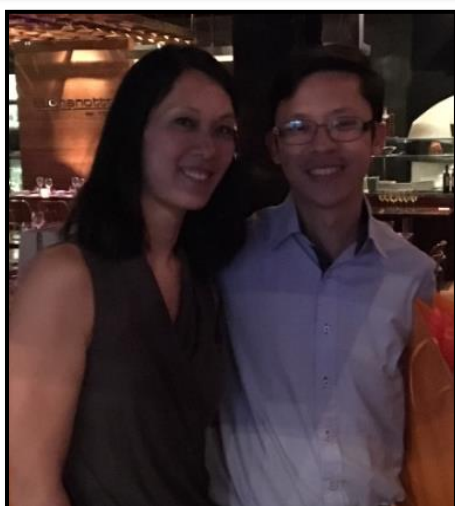


Photo credits:  
Drs. Lapinsky, Telias



## Obstetric Critical Care

Management of the critically ill obstetric patient is often an area of concern for intensivists. The IDCCM at U of T provides ICU support for several tertiary care obstetric units, with members contributing to the rather limited body of literature on management of the critically ill pregnant patient.

Dr. Kazuyoshi Aoyama, a previous IDCCM international fellow is in the process of completing his PhD supervised by Dr. Rob Fowler, on *Maternal critical illness in Canada: temporal trends, predictors of outcome, and variability in the provision of critical care*. He has recently completed a systematic review on severity of illness scoring systems in the pregnant patient.

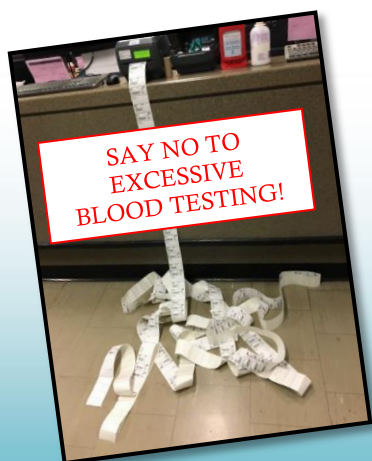
Dr. Julien Viau-Lapointe, a current IDCCM fellow has training in Obstetric Medicine, and is involved in several related research projects. He presented a systematic review on the outcomes reported for studies of mechanical ventilation in pregnancy, at the ATS in Washington. A further systematic review on obstetric critical care, updating a previous review by Pollock et al (2010), is nearing completion in collaboration with Dr. Rohan D'Sousa (Obstetrics), Dr. Louise Rose (Nursing) and Dr. Stephen Lapinsky (IDCCM).

Dr. Stephen Lapinsky has a long-standing interest in the Obstetric patient, with previous publications on severity of illness scoring in pregnancy, pregnancy with restrictive lung disease, and mechanical ventilation during pregnancy. Following Julien's systematic reviews, they will be developing a Core Outcome Set for studies of critical illness during pregnancy supported by a Chest Foundation grant, in collaboration with Dr. D'Souza and Dr. Rose. Stephen is the chair of the Research Subcommittee of the North American Society for Obstetric Medicine and was recently appointed as an Editor of the journal Obstetric Medicine.

Julien and Stephen are currently developing a new "Pregnancy-related critical illness" module as a component of Dr. Dominique Piquette's new Critical Care curriculum.

*Dr. Stephen Lapinsky*

## Quality Improvement



How often do we do blood tests in the Intensive Care Unit? Certainly too much! Part of the Co-learning Curriculum in Quality Improvement (CCQI) course, our group developed a QI initiative aimed at decreasing the amount of blood tests done at the Mount Sinai Hospital ICU. We created an education program for residents and nurses, guidelines on recurring blood tests and modified the electronic order sets. Our early results seem promising as we are working on improving our initiative and formally assessing its impact. Here is our elevator pitch that won the best pre-recorded performance at the CCQI presentation day:  
<https://youtu.be/7HOUu2NLsPA>. Quality matters!

*Drs. Viau-Lapointe, Ferreyro, Geagea, Artigas, Alali, Hamidi, Al-Fares, Mehta*





The second annual IDCCM course on mechanical ventilation ([www.mechanicalventilation.ca](http://www.mechanicalventilation.ca)) ran from April 26-28 at the Michener Institute.

The course was again a major success with over 80 participants from across Canada and from around the world: New Zealand, Brazil, USA, Quebec, Nova Scotia, Alberta were all represented.

The course featured cutting edge presentations on the pros and cons of spontaneous breathing under ventilation, ventilator-induced lung injury, ventilator-induced diaphragm dysfunction, non-invasive ventilation, extra-corporeal life support, and outcomes in survivors. In addition to a heavy schedule of lectures, the course offered participants hands-on workshops on dyssynchrony, bedside ultrasound, assessment of respiratory mechanics, and monitoring inspiratory effort under ventilation. Despite the demanding pace of the course, participants were enthusiastically positive in their feedback on the course.

The high level of interest, large number of attendees, and the strongly positive feedback all speak to the strength of the IDCCM as a world-leading centre of expertise in the care of patients with acute respiratory failure.

*Dr. Ewan Goligher*



Photo credits: CCCF & Dr. Brochard



## IDCCM Scholar Operational Grant: *First Call for Applications*

The goal is to provide support and recognition for future research leaders in critical care. This program is for young investigators in the Interdepartmental Division of Critical Care Medicine (IDCCM).

This will provide:

1. Research support (operating funds) to facilitate early career research;
2. Recognition (as named Assistant Professorship) to the recipient;
3. Guaranteed participation to present a faculty talk at CCCF each year of their tenure.

*The ultimate goal is to create a cohort of award recipients, raise the research profile in the field, and facilitate support and mentorship for subsequent generations of intensivists.*

**Financials:** \$20,000/year for 2 years (unrestricted operating funds), administered to their RI. Possibility of renewal for a third year based on review.

**Eligibility:** Assistant Professor, clinician-scientist or clinician-educator focused on research, with an appointment in the IDCCM; within 6 years of first independent academic appointment. Preference will be given to individuals who already have a clear track record of success as a researcher.

**Application deadline:** August 31, 2017

**Announcement and start date for first scholar:** October 1, 2017

### **Application:**

1. Current CV
2. Letter of support from Hospital Department Chief, with guarantee of at least 50% research time
3. 2 External references (from outside the individual's hospital and university departments)
4. 2 page outline (Page 1: career to date and research goals for the next 5 years; Page 2: specific plans for a proposed project during the 2-3 years).
5. Submit to: [Dr. Hannah Wunsch](#)

A **selection committee** will include members of the IDCCM and the wider U of T community. For this first round, one award will be given out with plans for a second application round in 2018.

The name of the Assistant Professorship will depend on the institution at which the individual is based. All recipients will be referred to as "IDCCM Scholars". A yearly summary of academic productivity is expected and will be reviewed by the application committee, with renewal of funding contingent on timely receipt of this summary



SUMMER 2017



Interdepartmental  
Division of Critical  
Care Medicine



# ALLIANCE FACULTY DAY

*Fostering integration and research excellence across our  
University of Toronto Critical Care and interprofessional community*



## **Save The Date**

Wednesday, September 13, 2017

8:00 A.M – 4:00 P.M.

Vivian & David Campbell Conference Facility

Munk School of Global Affairs, Trinity Site, 1 Devonshire Place

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