



IDCCM Newsletter

Education Mini-Retreat Photos

In this issue

- 2 Message from Dr. Brochard
- 3-5 Awards
- 6 Announcements
- 7 Adult Residents and Clinical Fellows 2017-18
- 8-9 IDCCM Mini-Education Retreat
- 10-12 IDCCM Educ Leads Ad
- 13 RCPSC ACES Course
- 14 Scholarly Activities
- 15 A stab in the dark
- 16 Wicest Region of Spain
- 17-18 Clinical Trial: BALANCE
- 19 3 Wishes Project
- 20 CCPR
- 21 VP Rounds & Website
- 22 Art Slutsky Research Day
- 23 NABOR
- 24 CCCF 2016
- 25 Basic Research Course



Save the Date!

Nuts and Bolts Of Research (NABOR)
April 12, 2017

Mechanical Ventilation:
From physiology to clinical practice
April 26-28, 2017

Oral Viva
May 9, 2017

Art Slutsky Research Day
June 20, 2017

RCPSC ACES Course
July 5-7, 2017

CCCF
October 1-4, 2017



Welcome to our semi-annual IDCCM Newsletter!

Dear colleagues and friends,

Again, a very busy but highly enjoyable semester for the Division!

Education is a priority for the Division and all faculty members are involved in Education. The evolving nature of our educational needs is, however, challenging and this is why we decided to organize our mini-retreat on Education this year (see pages 8-9). How to move from a Hospital based fellowship recruitment to a city-wide International Fellowship model and what is the best model? Should we centralize and harmonize everything in one single (giant) step, should we arrive there progressively or should we opt for a mixed model favoring rotations as “electives”? How could we better harmonize or share our adult and our paediatric program? How should we optimally address some of the emerging needs in Critical Care, such as ultrasound, simulation-based learning, hands-on approach to mechanical ventilation and other techniques? When and how should we implement competence-by-design, a new form of education and evaluation? It officially represents the Royal College’s initiative to improve physician training and lifelong learning, and we need to incorporate it in the best possible manner. How to organize the scholarly activities of our trainees and thus making sure that our program is highly academic from the start? And, within this maelstrom of objectives, needs, and vision, how to preserve the well-being of our residents, trainees, and future colleagues and how do we keep links with our alumni? These are some of the questions we addressed during our mini retreat and it was amazing to observe the high degree of engagement of our members.

It was a real pleasure to see it and I am very grateful to be able to run the Division with so many talented and committed colleagues for education. This retreat has been extremely useful to draw future avenues. For this new calendar year, we are reorganizing our education organization at large and are opening new positions and portfolios (see pages 8-12).

Margaret Herridge and Hannah Wunsch, as Research Director and Associate, have started to work hard on an agenda for IDCCM and we have been meeting monthly to discuss our plans. It includes short-term actions and I hope many of you will be interested by the NABOR session in April 2017 chaired by Hannah, as an example of a short term deliverable. Other items are long term goals like our Alliance project or the organization of Phase I trials; we also work on mid-term projects like harmonizing our SOPs for research etc.

Last, we are really working to make the Division a friendly place, striving for excellence, and ensuring equity, diversity, and transparency. Just saying “Well, nobody’s perfect” is not sufficient and we initiated processes like posting job offers and organizing systematic searches for any recruitment, having open mikes during our committee meetings and largely diffusing the minutes of our committees. This is a work in progress.

Last (and not least), the scientific productivity has been really impressive with a growing international recognition of the strengths of IDCCM. Let’s keep our ambitions very high!

And now, best possible holiday season for all of you!! **Joyeux Noël et Bonne Année!**

Dr. Laurent Brochard



Awards



Dr. Andrew Baker

The Keen Legacy Award - Dr. Baker is the inaugural winner of the Keenan Legacy Award at the Keenan Research Centre for Biomedical Science at St. Michael's. This award is awarded to a scientist who exemplifies the mission of the Keenan Research Centre for Biomedical Science— generating new knowledge and translating scientific discoveries to improve patient health.

The Keenan Legacy Award is awarded to a scientist with the Keenan Research Centre for Biomedical Science. Candidates must exemplify the mission of the centre—generating new knowledge and translating scientific discoveries to improve patient health. Their work enhances the reputation of biomedical or translational research and their actions lead to a rich tradition of developing the next wave of great scientists.

The award's winner leads a highly skilled lab and is an established leader in the field. His animal models and drug discovery studies truly span from bench to bedside. As a member of the iBEST collaboration, this recipient established several lines of research with Ryerson collaborators. Also a clinician, your winner has spearheaded Ontario strategy for collecting, storing and comparing standardized data on patients with concussions. This project will inform critical care, research and quality initiatives across the province. With research spanning the need to understand the biomedical mechanisms behind head injury to the development of improved concussion care for Ontarians.

Jeffrey C. Lozon Physician Leadership Award - Dr. Baker was named the winner of the 2016 Jeffrey C. Lozon Physician Leadership Award. This award is given annually to a St. Michael's physician who has demonstrated outstanding leadership skills and exemplifies the Mission and Values of the hospital.



Dr. Margaret Herridge

Received the 2016 ESICM Honorary Membership of the European Society of Intensive Care Medicine.

Honorary membership is awarded to an individual who has made an outstanding contribution to the specialty of Intensive Care Medicine. This was awarded for our group's ICU outcomes work for patients and families after critical illness at the 2016 meeting in Milan.



Dr. Hannah Wunsch

2016 Recipient Presidential Scholar Award of the American Society of Anesthesiologists (ASA).



Dr. Elizabeth Wilcox

Excellence in Teaching Award, September 2016
University Health Network/Sinai Health System



Dr. Tài Pham

Received the ESICM Young Investigator Award of the European Society of Intensive Care Medicine.

The INFOVENT research program (electronic INFOrmation, analysis of physiological data from mechanically VENTilated adult patients in the academic Intensive Care Units)



Grant Awards

Dr. André Carlos Amaral

Innovation Fund Award 2016: Emergency and Critical Care Award

[Therapeutic Alliance in the ICU: Enhanced Information to Facilitate Decision-Making](#)

Highlights:

Transformation: We expect processes of care related to communication and decision-making to improve.

Adaptability: We expect that many parts of our website will be used in other hospital settings, and the locally specific parts of the website will be easily adaptable at other institutions.

Outcomes: We expect that patient and family outcomes will improve.

Dr. Craig Dale

Awarded the CIHR immersed scientists award.

Congratulations!!

Dr. James Downar

Appointed as the new Program Director for the Palliative Medicine Residency Training Program.



Recruitments

Dr. Laveena Munshi

Newly appointed full-time academic intensivist clinical investigator at Sinai Health System.

Dr. Victoria McCredie

Newly appointed intensivist at University Health Network - Toronto Western Hospital.

Dr. Lorenzo Del Sorbo

Newly appointed full-time assistant professor and clinician investigator at University Health Network – Toronto General Hospital.

Dr. Mjaye Mazwi

Newly appointed staff at Cardiac CCU at the Hospital for Sick Children.

Dr. Bourke Tillman

Newly appointed Clinical Associate at Sunnybrook Hospital.

Happy Transition....

Dr. Chris Hayes

New Chief Medical Information Officer at St. Joseph's Healthcare Hamilton as of December 1st.

Dr. Andrew Steel

After two years of intense activity as Program Director, Andrew Steel will be seeking new opportunities at the PGME's Dean Office. Among other things, Andrew has been a fantastic advocate for our residents and fellows, has introduced a number of changes in the program to ensure we meet the RC requirements as well as new processes in our organization, and has initiated a rethinking of the international fellowship program.

We are really grateful for the tremendous work he has accomplished, and we wish him all the best for future education roles. We take this opportunity to warmly thank him in the name of the IDCCM for the work accomplished so far.

We have an ongoing search for a new Program Director to be hired before the end of this calendar year.

Andrew is helping with the transition to make sure that there is no challenge for our program and our residents and Damon Scales has accepted to take the Interim Program Director position for the next three months to facilitate this process. Many thanks for this!



Education

University of Toronto, Adult Critical Care Residents July 1, 2017 – June 30, 2018

I am pleased to announce the results of this year's CaRMS residency match for the Adult Critical Care Medicine Training Program at the University of Toronto.

All 6 of our positions were filled. Many thanks to Dr. Andrew Steel and the entire selection committee for recruiting a truly outstanding cohort.

Please join me in welcoming the following residents that will enter our program on July 1, 2017

Dr. Lior Bibas (McGill)
Dr. Jordan Nantais (Dalhousie)
Dr. Maude Peretz-Larochelle (McGill)
Dr. Jenna Spring (UofT)
Dr. Alexander White (UofT)
Dr. Christopher Yarnell (UofT)

Congratulations, and welcome to the program! We are delighted that you've chosen Toronto for this next phase of your training!

Damon C. Scales, MD, PhD
Interim Program Director
Associate Professor

Interdepartmental Division of Critical Care, University of Toronto
Department of Critical Care Medicine, Sunnybrook Health Sciences Centre



University of Toronto, IDCCM Mini-Education Retreat September 8, 2016

Goals of the Retreat

- Describe the current challenges and our vision for IDCCM Education in five (5) years.
- Describe the resources needed, gaps to fill, new structures to put in place, and ensure that we engage all members.

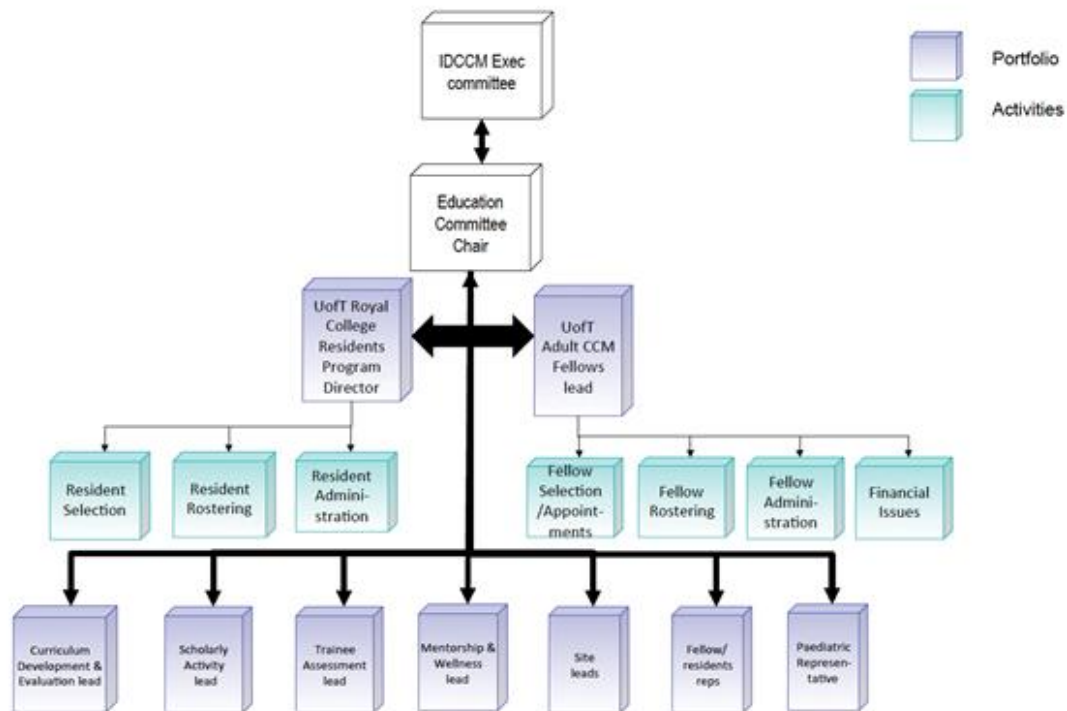
Program of the Day

- 1) New Challenges for Education at IDCCM, Dr. Laurent Brochard
- 2) Vision of U of T and Department of Medicine, Dr. Arno Kumagai
- 3) Current state of the Program, Dr. Andrew Steel
- 4) Vision of the Royal College, Dr. Kevin Imrie
- 5) IDCCM Updates
Chairs: Drs. Glen Bandiera & Andrew Steel
 - a. Paediatric program, Dr. Briseida Mema
 - b. Scholarly activities, Dr. Dominique Piquette
 - c. Selection process, Dr. Andrew Steel
 - d. Website, Dr. Shelly Dev
 - e. International education collaboration, Dr. Neill Adhikari
- 6) Breakout Groups
 1. Curriculum design with focus on specialized curriculums
(*Ultrasound, Simulation*)
Dr. Peter Laussen, Chair
Dr. Dominique Piquette, Co-Chair
 2. Selection and Assessment
Dr. Niall Ferguson, Chair
Dr. Christie Lee, Co-Chair
 3. International fellows, clinical electives, scholarly activities
Dr. Brian Cuthbertson, Chair
Dr. Alberto Goffi, Co-Chair
 4. Mentorship, consistency across the city and well-being
Dr. Andrew Baker, Chair
Dr. Taz Sinuff, Co-Chair
- 7) Round Table: Governance
Chairs: Drs. Brian Kavanagh & Laurent Brochard



Output of the retreat: A New Organization for Education

Figure 1- IDCCM org chart for education committee





**Adult Critical Care Medicine Royal College Residency Program Director Role
and
Adult Critical Care Medicine International City-Wide Fellowship Lead
and
Adult Critical Care Medicine Portfolio lead roles**

*Application deadline (all roles)- 5pm, Monday 12th December 2016. An email to Dr Brochard expressing an interest in a role / roles will be acceptable.
Interview dates (program director and fellowship leads roles)- 3-5pm, Monday 19th December 2016.
Confirmation of interview by 13th December 2016.*

The Interdepartmental Division of Critical Care Medicine (IDDCCM) of the University of Toronto and its affiliated Health Sciences Centres are searching for a program director for the **Royal College Adult Critical Care Medicine Residency Program** and a lead for the **International City-wide Critical Care Fellowship** as well a **Portfolio Leads** for a variety of identified portfolios with the education committee structure (see figure 1). The successful candidates will be from within the faculty of the IDDCCM at the University of Toronto.

The University of Toronto Adult Critical Care Medicine Residency program is fully accredited by the Royal College of Physicians and Surgeons of Canada. Because of the quality and importance of this program it is essential to our division and we want to maintain this high quality and adapt to the new challenges of Critical Care Education as identified in our recent educational retreat.

Adult Critical Care Medicine Royal College Residency Program Director Role

The University of Toronto Interdepartmental Division of Critical Care is now seeking an individual to assume the role of Program Director of the Adult Critical Care Medicine Residency Training Program. The individual must be dynamic, academic intensivist who has demonstrated strong leadership and creativity in education program development. The Critical care medicine residency training program is a two year subspecialty program that prides itself on developing leaders in critical care medicine. It has consistently attracted a bright, diverse group of residents from a variety of base-specialty programs.

The Program Director must possess qualifications that are acceptable to the Royal College of Physicians and Surgeons of Canada and be responsible for the overall conduct and integrity of the integrated residency program. Specifically, the Program Director must assure that the program meets all the standards (B1 to B6) as outlined in the Royal College of Physicians and Surgeons Standard for Accreditation of Residency Training Programs. The Critical Care Residency Program Director will be expected to work collaboratively and distributively within the newly appointed Education Committee structure (see figure 1) and is responsible to the Chair of the Education Committee and then to the Chair and the Executive committee of the Interdepartmental Division of Critical Care and to the Postgraduate Dean at the University of Toronto. It is identified that the successful applicant will require administrative support to aid their work (see below). The successful candidate will be required to work in synergy with the Adult Critical Care Medicine International City-Wide Fellowship Lead to achieve the goals of both positions.

See attached document “U of T IDDCCM Royal College Program Director Responsibilities 2016” for roles and responsibilities.

Stipend support: To be arranged.

Admin support: Will be supplied by a central admin person as required for them to fulfil their specific roles within the education structure. Details to be arranged.

Term: Three years renewable upon review.

Appointment: By interview on Monday the 19th December

Commencement of positions: 1st January 2017



Adult Critical Care Medicine International City-Wide Fellowship Lead

The IDCCM of the University of Toronto and its affiliated Health Sciences Centres currently enjoys a world-wide reputation for Critical Care Medicine education and research but international fellows are currently hired by each hospital. In terms of their activities, apart from the clinical work which is primarily hospital-based, they usually participate in most of the education programs of the Royal College fellowship program. We are currently developing a city-wide *“University of Toronto International adult critical care fellowship”* under the University of Toronto’s leadership from the three hospital fellowship programs that independently recruit and train approximately 40 fellows per year. This currently accounts for the majority of the clinical fellows / residents in the IDCCM. The centralized recruitment will allow better quality applications and also reduce the redundancy of having the same applicants being candidates for the different programs. This role is renewable on a three yearly basis and is being advertised and interviewed in open competition around the city.

Aim of the University of Toronto International adult critical care fellowship: This new fellowship will offer the world’s best training program for international clinical fellows in adult critical care medicine.

Objectives of the University of Toronto International adult critical care fellowship:

1. To fully utilize the combined name and reputation of the University of Toronto and its affiliated academic health science centres and their world-leading clinicians and researchers to attract the world’s top candidates to the international fellowship.
2. To deliver an excellent clinical experience to all international clinical fellows suitable to their training stage and needs.
3. To deliver educational excellence and innovation to the international clinical fellows using state of the art teaching methods.
4. To deliver a broad experience of critical care clinical practice by developing research, educational, quality improvement and leadership experience for the international clinical fellows.

The position: The city-wide fellowship lead will be based at one of the adult Academic Health Science Centres in the city. The successful applicant will have strong educational credentials and profile. This role is renewable on a three yearly basis and is being advertised and interviewed in open competition around the city. The successful candidate will be required to work in synergy with the Adult Critical Care Medicine Royal College Residency Program Director Role to achieve the goals of both positions.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of the sexual minority groups, and others who may contribute to further diversification of ideas.

The lead will be expected to work collaboratively and distributively within the newly appointed Education Committee structure (see figure 1) and is responsible to the Chair of the Education Committee and then to the Chair and the Executive committee of the Interdepartmental Division of Critical Care and to the Postgraduate Dean at the University of Toronto. It is identified that the successful applicant will require administrative support to aid their work (see below)

See attached document “U of T IDCCM International City wide Fellows Lead Responsibilities 2016” for roles and responsibilities.

Stipend support: To be arranged.

Admin support: Will be supplied by a central admin person as required for them to fulfil their specific roles within the education structure. Details to be arranged.

Term: Three years renewable upon review.

Appointment: By interview on Monday the 19th December

Commencement of positions: 1st January 2017



Adult Critical Care Medicine Portfolio lead roles

The University of Toronto Interdepartmental Division of Critical Care is also now seeking individuals to assume the roles of portfolio leads as identified in the new org chart for education (figure 1). These include:

1. Curriculum development and evaluation lead
2. Scholarly activity lead
3. Trainee assessment lead
4. Mentorship and wellness lead

These portfolio leads will have a significant degree of autonomy to lead their portfolios but will be expected to work collaboratively and distributively within the newly appointed Education Committee structure (see figure 1). Particularly they are expected to work closely with the Residency Program Director and City Wide fellowship leads on aspects of their roles that interact or overlap with the key roles of these positions. They will also report to the Chair of the Education Committee and then to the Chair and the Executive committee of the Interdepartmental Division of Critical Care. It is identified that the successful applicants for these positions will also require administrative support to aid their work and this support will be shared between all the roles within the education committee.

Stipend support: These roles will not be stipended.

Appointment: By panel selection on Monday the 19th December

Commencement of positions: 1st January 2017

Admin support: Will be supplied by a central admin person as required for them to fulfil their specific roles within the education structure. Details to be arranged.



The Royal College of Physicians and Surgeons of Canada

16th National Acute Critical Event Simulation (ACES) Courses

Toronto, July 5-7, 2017

The National ACES course welcomes all first year Royal College critical care residents from the 10 adult critical care programs across Canada, and international fellows.

The goal of the three day course is management of the critically ill patient in the first hours. Educators from all Canadian CCM programs are involved in course delivery.

The course uses multiple educational modalities, listed below, with emphasis on experiential learning.

- ***Airway***

This module reviews basic and advanced airway management, with hand- on practice of multiple airway techniques.

- ***Breathing (Ventilator)***

This module allows management of common and complex mechanical ventilation scenarios, using a mannequin combined with a ventilation simulator.

- ***Circulation***

Case-based sessions focus on the diagnosis and management of shock and evidence for fluid resuscitation, vasoactive drugs, hemodynamic monitoring and ultrasound. Residents practice intra-osseous access.

- ***Establishing Therapeutic Relationships***

Residents interact with standardized patients to learn how to develop empathetic, therapeutic relationships.

- ***Theatre-Based Simulation (High Fidelity)***

Learners are exposed to three scenarios, applying their knowledge, and practicing crisis and resource management.

- ***Telephone Simulation***

Trainees provide telephone consultation to a physician, requesting assistance in managing a critically ill patient.

- ***Virtual Patient Simulation***

Computer based, video assisted cases, allow residents to practice situational awareness and group decision making. Faculty debrief once residents have committed to a diagnostic and treatment plan.

- ***Ultrasound workshop***

This one day pre- course teaches cardiac, lung and abdominal US.

The ACES course is an opportunity for trainees to interact and network with colleagues and educators from across Canada.

The inaugural ACES course was held in Toronto in 2002. On behalf of the IDCCM, we look forward to welcoming trainees and educators to the 2017 course.

Dr. Simon Abrahamson
Dr. Alberto Goffi
Dr. Christie Lee
Dr. Dominique Piquette



SCHOLARLY ACTIVITIES

Within The Adult Critical Care Medicine Residency Program

In 2011, the Royal College added to the subspecialty training requirements in Adult Critical Care Medicine "*six months of research relevant to the educational objectives in Critical Care Medicine and/or other clinical or scholarly activity acceptable to the residency program*". The Royal College thereby recognized that all critical care trainees should be able, by the end of their training, to evaluate and think critically about their clinical practice, and should, therefore understand how the *best available evidence* is produced and disseminated.

Over the last 5 years, our Program has valued equally projects dedicated to the advancement, synthesis, utilization, and sharing of knowledge through research, quality improvement, and educational activities. Scholarly projects are expected to be planned (identified goals, comprehensive literature review, and appropriate methods/approach), and to lead to results that can be critically reviewed and effectively shared with critical care audiences.

To help our trainees complete successfully their scholarly project, our Program has been offering the following opportunities:

- A large pool of highly skilled and experienced Faculty able and willing to provide supervision and mentoring for a range of scholarly activities;
- Various forums to discuss preliminary ideas and approaches in order to receive timely, constructive feedback and to ensure the development of high quality projects (e.g., CRIP Rounds and, since this year, an annual dedicated Academic Half-Day in December);
- Multiple forums to promote the dissemination of the final results of the scholarly projects, including the annual Oral Viva and Art Slutsky Day.

An Oral Viva was first held in May 2016 to offer all graduating CCM residents an opportunity to present, discuss, and critically appraise the outcomes of their scholarly project with a panel of more senior IDCCM members. Although the event was meant to provide valuable learning opportunities and constructive feedback to our trainees, our hope is to create a collegial and positive experience for all participants.

The next edition of the Oral Viva featuring our 2015-2017 cohorts of CCM residents is scheduled on **Tuesday, May 9, 2017**, between 2-5 PM.

Please, mark your calendar and join us if you can. This is a great opportunity to hear about the wonderful projects that will be completed by our trainees during this academic year.

Dr. Dominique Piquette



‘A stab in the dark...’



Critical care procedures, even when done for the right indications come with significant risks. The CPSO consent to treatment policy released in May 2015 mandates that consent be obtained for all treatments offered. This could and has been interpreted to include ICU procedures. As part of a longitudinal quality improvement program (mentors Drs. Brian Wong and Andre Amaral), we as a group of Fellows (International and Royal College residents) set out to understand the scope of the problem and design an intervention. Over the period of one year, we conducted audits, patient/SDM and ICU Attending interviews and designed an intervention.

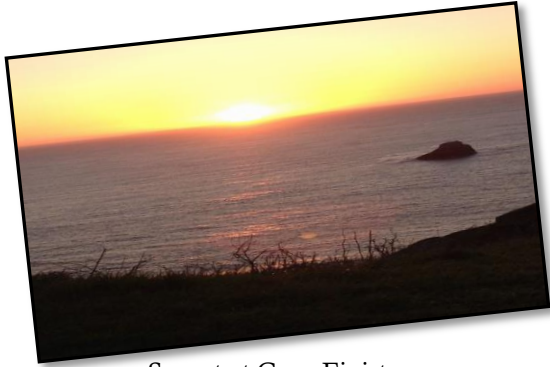
Our audit across the 5 academic sites revealed very low compliance with the policy and interviews with ICU attendings helped tease out the barriers to seeking consent. Patient and SDM interviews suggested that they would like to be informed about procedures, but not necessarily prior to it and definitely not at 2:00 am! Based on all this data, we designed a consent form (to be administered at admission to ICU) and a supplemental pictorial tool to help explain these interventions. We are currently piloting this at Sunnybrook and would like to pilot it across all the academic sites. We have also presented our data at the University's QI day and more recently at the CCCF. This project is also the recipient of the Garner King award for 2016.

The project was unique in many ways - but two things stood out - it was the first structured QI initiative for most of us and our group had 5 International fellows trying to address a very local policy mandated problem (the problem of consenting is a global issue however) and we were able to successfully collaborate to develop an intervention.

IMPACT QI Group :
Dr. Bharath Kumar
Dr. Kate Tatham
Dr. Timothy Chimunda
Dr. Mika Hamilton
Dr. Irene Telias



Where are you from? I'm from the wickest region of Spain



Sunset at Cape Finisterre



At the Ezaro Waterfalls



Mount Pindo at sunset from Cape Finisterre

I've been asked this question many times since I started working abroad. Although my answer has evolved over time, I still get blank faces when I explain where I'm from. So, I've decided to introduce you to one of the most unique regions in Spain, Galicia, focusing on the area I come from, Finisterre.

Galicia is one of the 17 regions in Spain. Galicia has a unique feel and is well-known as being one of the friendliest and greenest regions, with the best seafood and fish within land. One suggestion: *octopus Galician style*

Finisterre is the furthest West point in Spain. It's name comes from combining latin terms *finis* (end) and *terrae* (land). Legend says that when the Romans arrived to Cape Finisterre all they could see was a big mass of water in front of them, making it the end of the known Earth.

A few centuries before them, the Celts had already found their own Olympus in a hill called the Mount Pindo or Moa. It's location over the sea recalls that of a protecting wall. Hiking routes will get you to the top to enjoy amazing sightseeings of the surroundings.

Close to the Moa in a village called Ezaro, you will find the remainings of the only river in Europe that would end in a waterfall. Due to construction of a dam the waterfall doesn't run as it used to but you can still see water falling.

Galicia and Finisterre are worldwide known for the Camino de Santiago. The Camino is a pilgrimage route made of thousand routes starting almost anywhere in Europe. Legend says St James was buried in the city of Santiago de Compostela.

Dr. Carmen López Soto



Research & City-Wide Events

A Randomised Clinical Trial: BALANCE

The BALANCE research program focuses on optimizing antibiotic treatment duration in critically ill patients with bloodstream infections. The aim of this research program is to determine whether shorter duration antimicrobial therapy is associated with non-inferior mortality compared with longer duration antimicrobial therapy. Thus far we have completed:

- a **systematic review** of the literature (Crit Care. 2011;15(6):R267)
- a **national survey** of infectious diseases and critical care physicians (Int J Antimicrob Agents. 2011 Dec;38(6):480-5)
- a **single centre observational study** on duration of antibiotic therapy (Can J Infect Dis Med Microbiol. 2013 Fall;24(3):129-37)
- a **multi-centre observational study** on duration of antibiotic therapy (CCM. 2016;44(2):256-64)
- a **pilot RCT** of 7 vs. 14 days of adequate antibiotics for bacteremia to determine (protocol available in Trials.2015 Apr 18;16:173; publication of results pending).

With broad collaboration within the Canadian Critical Care Trials Group (CCCTG), and funding from the Canadian Institutes of Health Research (CIHR), we are starting the BALANCE main trial at sites across Canada, most of which participated in the pilot trial, in addition to collaborating with international partners. For more information, please visit <http://balance.ccctg.ca>.

- **Primary Research Question for the BALANCE RCT**
Is 7 days of antibiotics non-inferior to 14 days of antibiotics for preventing death among critically ill patients with blood stream infections.

Highlights: Our BALANCE pilot RCT is complete. 90-day outcome and all data entry is complete for pilot patients (n= 115) and full analyses are to be completed soon.

- The BALANCE main RCT has received funding of \$2 million from CIHR for the next 5 years.

**BALANCE Publications to date:**

1. Antimicrobial Cost Savings Associated with Shorter Duration Treatment for Bloodstream Infections. *JAMMI* 2016;1(2): 99-100.
2. Pathogens and antimicrobial susceptibility patterns in Canadian critically ill patients with bloodstream infections: a descriptive study. *CMAJ Open* 4:E569-E577; published online October 13, 2016
3. The effect of inadequate initial empiric antimicrobial treatment on mortality in critically ill patients with bloodstream infections: A Multi-Centre Retrospective Cohort Study. *PLoS One* 2016;11(5).
4. Duration of Antimicrobial Treatment for Bacteremia in Canadian Critically Ill Patients. *Crit Care Med* 2016;44(2):256-64.
5. Bacteremia Antibiotic Length Actually Needed for Clinical Effectiveness (BALANCE): study protocol for a pilot randomized controlled trial. *Trials* 2015;16:173.
6. Duration of antibiotic therapy for bacteremia: a systematic review and meta-analysis. *Crit Care*. 2011;15 (6):R267.
7. Antibiotic Treatment Duration for Bloodstream Infections in Critically Ill Patients: A National Survey of Canadian Infectious Diseases and Critical Care Specialists. *Int J Antimicrob Agents* 2011;38:480-5.
8. Duration of Antibiotic Therapy in Intensive Care Unit Bloodstream Infections. *Can J Infect Dis Med Microbiol* 2013;24(3):129-37.

BALANCE Abstracts Presented to date:

1. Duration of antimicrobial therapy for bloodstream infections critically ill patients in the United Kingdom. *The Intensive Care Society - State of the Art Meeting*, Dec 2015, London, UK
2. The effect of inadequate initial antimicrobial treatment on mortality in critically ill patients with bloodstream infections. *Infectious Diseases Society of America (IDSA) IDWeek*. 2015, San Diego, USA.
3. Patient And Pathogen Predictors Of Antibiotic Treatment Duration For Bloodstream Infection In Critically Ill Patients. *American Thoracic Society*. 2014, San Diego, USA.
4. Measuring The Duration Of Adequate Antimicrobial Treatment For Blood Stream Infections In Critically Ill Patients. *American Thoracic Society*. 2014, San Diego, USA.
5. Description Of Duration Of Treatment For Bloodstream Infection In Critically Ill Patients: A Multi-Centre Observational Study. *American Thoracic Society*. 2014, San Diego, USA.
6. Determining The Inter-Reviewers' Reliability In Documenting Potential Source And Relapse Of Underlying Source In Critically Ill Bacteremic Patients. *American Thoracic Society*. 2014, San Diego, USA.
7. Patient and Pathogen Predictors of Antibiotic Treatment Duration for Bloodstream Infection in Critically Ill Patients. *Canadian Critical Care Forum*. Toronto. 2013.
8. Measuring the Duration of Adequate Antimicrobial Treatment in Critical Care. *Canadian Critical Care Forum*. Toronto. 2013.
9. Description of Treatment Duration for Bloodstream Infections: A Multi-Centre Observational Study. *Canadian Critical Care Forum*. Toronto. 2013.

Co-Investigators

Contact: Drs. Rob Fowler or Nick Daneman (nick.daneman@sunnybrook.ca)



The 3 Wishes Project originated at St. Joseph's Healthcare Hamilton in January 2013, under the leadership of Dr. Deborah Cook (<http://www.3wishesproject.com/>). It was designed to improve end-of-life experiences by celebrating the lives of patients dying in the ICU, and supporting those who are grieving, by eliciting and completing specific wishes unique to each patient and their loved ones.

After securing REB approval to evaluate multi-center implementation of this initiative, we brought 3 Wishes to the Medical-Surgical and Trauma-Neurosurgical Intensive Care Units at St. Michael's this fall. When patients are dying, we ask family and friends to share stories of the patient's life, highlighting who and what was most important and what might best honour the patient in their last days and hours. Through enrollment on targeted physician weeks, collection of a minimal data set, and follow-up focus groups and interviews with family members and clinicians, we will assess the scalability, transferability, affordability, and acceptability of 3 Wishes.

Seven patients and families have participated in 3 Wishes since October 2016. Examples of wishes that have been completed include playing favourite music at the bedside, sharing stories and memories out loud with friends, family members, and clinicians, bedside prayers and rituals, facilitating familial connections through digital means such as FaceTime, and the creation of keepsakes such as hand and footprints, locks of hair, ECG strips, and WordClouds (see examples below).

Dr. Baker and I would like to acknowledge the ICU social workers and chaplains (Christine Lee, Kristy Buck, Rose Piacentino, Lionel Ketola, June Son, Iryna SolukFigol, Siobhan McPartland), as well as the Critical Care Clinical Research Unit research coordinators (Yangmei Li, Gyan Sandhu, Marlene Santos), for their great efforts in coordinating wishes and capturing data. The dedication of our interprofessional team is what makes 3 Wishes possible.

Ms. Orla Smith & Dr. Andrew Baker, on behalf of the St. Michael's Hospital 3 Wishes Team





Critical Care Physiology Rounds

The development of the discipline of intensive care medicine was precipitated by advances in the understanding of physiological mechanisms of respiratory failure. The respiratory physiologist John West records that it was a newfound appreciation for respiratory mechanisms and blood gas analysis in the context of an overwhelming epidemic of neuromuscular respiratory failure (polio) that propelled the introduction of positive pressure ventilation and the reorganization of care for patients with respiratory failure into specialized respiratory units. Physiology concerns the study of biological function at the whole-organ level and intensive care medicine, given its focus on the management of acute organ dysfunction, is fundamentally a physiological discipline. Other disciplines—health services, epidemiology, molecular biology, psychology, immunology—have brought invaluable insights to bear on ICU practice, but the assessment and management of organ (dys)function remains the intensivist's primary activity. Critical Care Physiology Rounds (CCPR) aims to nurture advances in the understanding and application of novel physiological insights—neurological, cardiovascular, muscle, renal, respiratory, endocrine, etc.—to advance research and practice in intensive care medicine.

To that end, we've had some outstanding sessions in the last year. CCPR facilitates presentations by budding investigators and established scientists to talk about issues ranging from long-term outcomes to high-altitude pulmonary edema. CCPR is innately translational; for example, we hosted an outstanding session featuring Claudio Dos Santos, Jane Batt, and Margaret Herridge discussing mechanisms of ICU-

acquired weakness from molecular biology through to clinical outcomes. We've revisited classic questions (John Kellum: "What's the best IV fluid composition) and discussed cutting edge data (Takeshi Yoshida: "The Dark Side of Spontaneous Breathing in ARDS"). The Rounds has featured broad overviews of topics (Mitesh Badiwala "VA-ECMO"; Joe Fisher "What you can do with CO₂ that you could have learned in medical school and didn't") and novel research presentations (Christer Sinderby "Tracheal Through Flow" and Liz Wilcox "Accelerometry as an outcome measure").

CCPR attracts outstanding visiting speakers in 2016: Erick Swenson, Jordi Mancebo, Francois Lamontagne, John Kellum, Sonny Dhanani. This January we will host one of the great respiratory physiologists in intensive care medicine over the last few decades, Dr. Rolf Hubmayr. We're also planning a new seminar series, "State of the Art in Physiology" and a series of lectures focused on novel measurement techniques. Through these planned seminars we aim to equip clinicians and investigators with knowledge and skills that can enhance the care of critically ill patients.

Dr. Ewan Goligher

2017 Schedule

January 17, linked with VP Rounds,

Drs. Rolf Hubmayr and Gaspar Montandon

February 21, Muscle Physiology

March 21, Respiratory Mechanics

April 18, Gas Exchange

May 30, Neurophysiology

June 27, Cardiovascular Physiology

September 26

October 24, linked with VP Rounds

November 28

December 19



2017 Visiting Professor Rounds Schedule

January 16-18 linked with CCPR, Dr. Rolf Hubmayr

February 6-8, Dr. Juliane Bubeck Wardenburg

April 3-5, Dr. Peter Spronk

May 1-3, Dr. Beth Riviello

September 11-12, Dr. Vicent Liu

October 23-25 linked with CCPR

November 6-8

December 4-6 or 11-13

The program is smoothly and excellently coordinated by Ms. Meredith Malloy, Meredith.Malloy@sunnybrook.ca. If you have any suggestions, please contact her.

IDCCM Website Redesign

Our division boasts some of the brightest, most innovative and leading minds in Critical Care and we need the platform to go along with it.

The IDCCM website is getting a makeover. With a new design and a global audience in mind, users from near and far will get an up close look at faculty profiles, educational resources, current events, academic output and perspectives from our current and past trainees.

We want to hear from all division members, to showcase your work and emerging ideas for our anticipated Spring 2017 launch.

It's you who make this Division world renowned, so we will be seeking your input over the next few months. Get ready for your close-ups....

Dr. Shelly Dev



Art Slutsky Research Day

June 20, 2017

We extend a warm invitation to all faculty members of the IDCCM to join us for our Annual Art Slutsky Day on June 20, 2017. This will be held at the Munk Centre and will be a wonderful opportunity to celebrate all the academic achievements of the group over the previous year. Our visiting professor this year is Dr. Daniel Talmor who is the Lowenstein Professor of Anaesthesia at Harvard Medical School and Chair of the Department of Anesthesia, Critical Care and Pain Medicine at Beth Israel Deaconess Medical Center in Boston. Dr. Talmor is well known internationally for his key contributions to the early identification, prevention and treatment of critical illness and also for his strength as a mentor and very collaborative colleague.

Our IDCCM academic day is a tribute to and celebration of our esteemed colleague and former Chair of our interdepartmental critical care group, Dr. Arthur Slutsky. He has set a very high bar for academic excellence and has contributed seminal research work in the areas of mechanical ventilation and acute lung injury to our international critical care community. He was an early pioneer of translational work and its application at the bedside and we honor his visionary leadership in our field. He has trained innumerable residents and fellows and has mentored countless faculty around the world and fostered the growth and identity of critical care as its own, unique and important specialty.

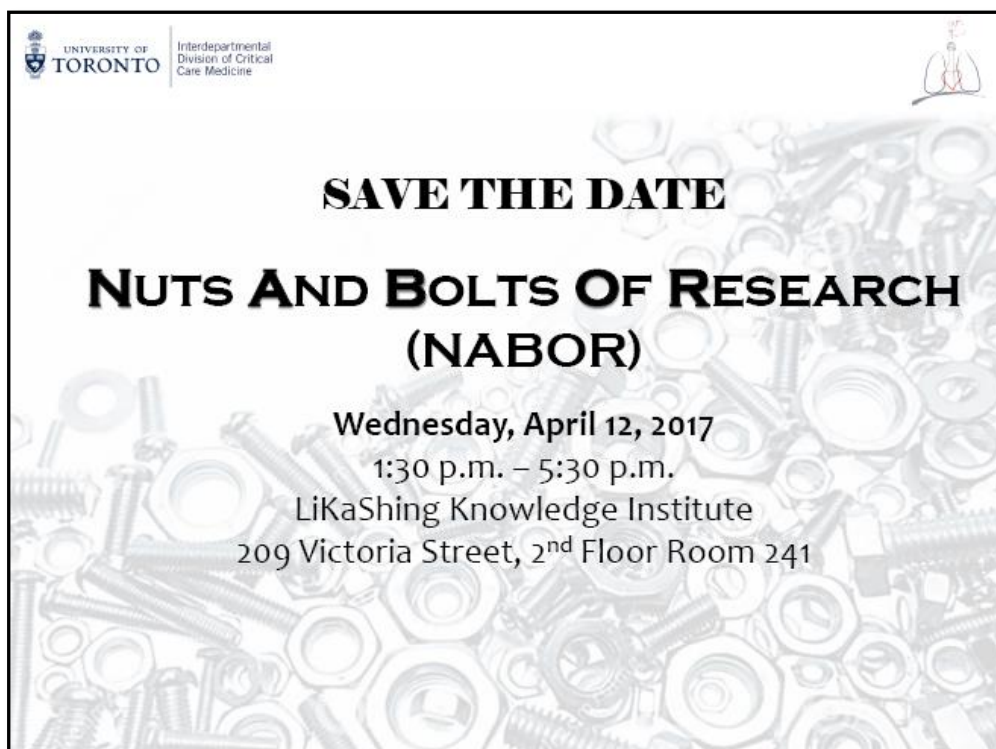
This day serves to celebrate ALL facets of our group's scholarly activity including basic, translational, clinical, and health services research work; quality improvement and our educational research enterprise.

Please plan to spend the day with your friends and colleagues and to have an opportunity to learn and talk about research and to foster new collaborations and stimulate ideas!"

Dr. Margaret Herridge



**Visiting Professor
Dr. Daniel Talmor**



Moderator: Dr. Hannah Wunsch

Time		Topic	Speaker
1:30 p.m.	20 mins	What Research Institutes do and do not provide	Dr. Art Slutsky
	10 mins	Questions	
2:00 p.m.	20 mins	Strategic approaches to grant submission at CIHR (and beyond)	Dr. Damon Scales
	10 mins	Questions	
2:30 p.m.	20 mins	REB and consent across the city	Ms. Orla Smith
	10 mins	Questions	
3:00 p.m.	15 mins	BREAK	
3:15 p.m.	20 mins	Developing collaborations – how to forge them and keep them	Dr. Margaret <u>Herridge</u>
	10 mins	Questions	
3:45 p.m.	20 mins	What to do when your paper is rejected? A guide for the frustrated	Dr. Gordon <u>Rubenfeld</u>
	10 mins	Questions	
4:15 p.m.	20 mins	What a high impact journal looks for in a research article	Dr. Laurent Brochard
	10 mins	Questions	
4:45 p.m.	20 mins	Responding to reviewers	Dr. Brian Kavanagh
	10 mins	Questions	
5:15 p.m.	15 mins	General discussion	All



Critical Care Canada Forum 2016

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.

This year Critical Care Canada Forum (CCCF) was held October 30th – November 2nd at the Sheraton Centre Hotel & Convention Centre. The conference proper was preceded by several pre-congress courses, including the popular Fellows' Day (co-sponsored by the Canadian Critical Care Society) and workshops on Emergency Neurological Life Support as well as Ultrasound in the ICU. This year's conference was attended by almost 1000 participants and featured presentations covering many diverse topics by the excellent Canadian faculty, as well as several prominent international speakers, including Luciano Gattinoni, Jean-Louis Vincent, Taylor Thompson and Philip Dellinger. In addition to the usual talks on mechanical ventilation and sepsis, topics included ECLS, organ donation, patient safety and critical care medicine education. As with many current conferences, social media presence was prominent with 621 tweets from 152 contributors using #CCCF16, reaching in total 100,000 accounts worldwide.

The organizing committee for Critical Care Canada Forum consists of: Brian Kavanagh (Chair, Organizing Committee); Niall Ferguson (Chair, Scientific Programme); Laurent Brochard, Shelly Dev; Claudia Dos Santos; Rob Fowler; Stephen Lapinsky; John Marshall; Damon Scales; and Art Slutsky. The conference in 2016 was a huge success, and planning is already underway for the upcoming year October 1 – 4, 2017. More details are available at www.criticalcarecanada.com.

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



Dr. Stephen Lapinsky



Basic Clinical Research Course Karachi, Pakistan

In November, Neill Adhikari and Rob Fowler traveled to Pakistan to deliver the first “BASIC” Research Course to critical care physicians in Karachi. The BASIC Research Course was developed by Neill, Rob, Charles Gomersall (Chinese University of Hong Kong), Shay Mc Guinness and Racheel Parke (Auckland New Zealand), and Anthony Delaney (University of Sydney) and follows the model of BASIC clinical critical care courses, aiming to provide a combination of text-based learning in conjunction with a 2-day practical workshop free of charge to interested participants.

Dr. Robert Fowler



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Happy
Holidays

and all the best in the New Year!

Dr. Brochard and staff