IN THIS ISSUE

2 Message from Dr. Brochard

3-8 Awards, Announcements & Anniversaries

9-11 Education

12-14 Neurocritical Care Toronto

15 Neurocritical Care Publications 2018

16 An update on End-Of-Life initiatives

17 TAAAC

17-19 Nepal Trip reflection

20 IDCCM Research

21 Save the date

21-23 IDCCM Publications

Save the Date!

IDCCM Alliance Faculty Day
April 4, 2019

NABOR
April 25, 2019

Mechanical Ventilation Course
April 9-11, 2019

IDCCM End of Year Celebration
June 17, 2019

Art Slutsky Research Day
June 18, 2019

Critical Care Canada Forum Photos
Nov 6-9, 2018
Message from Dr. Laurent Brochard

Dear colleagues and friends,

Happy 2019!
I am again so proud to announce and celebrate the successes in our Division of Critical Care Medicine.

No doubt, everyone will be happy with Art Slutsky becoming a new Member of the Order of Canada (DESIDERANTES MELOREM PATRIAM “They desire a better country”).

We have designated our second IDCCM Scholar, after a very difficult competition: congratulations to Ewan Goligher!

We have created the H. Barrie Fairley professorship and officially opened the competition at the end of 2018. This is just such an incredible and admirable story. This professorship means a lot: it celebrates critical care medicine since its birth in Toronto around 1958, it celebrates an extraordinary man –extraordinary by his life, his accomplishments and his gesture-, and it shows our strength as a recognized discipline. This professorship owes most to the donor, but also to the Toronto General and Western Foundation and to CCCF, which generous contribution was acknowledged by a medal from the Foundation.

CCCF is a great event, proposing every year new models of teaching, original presentations and partnership with industry, characterized by an extremely high international academic profile, and offering to all fellows in Canada an exceptional ‘Fellows Day’. For those of us participating, it means we need to be at our best and it is an opportunity to leverage the science produced in Toronto. We are very grateful to the work done by all IDCCM members to make it a success, including the work done around abstracts, chairs and facilitations, workshops, tweets, with a special thanks to Niall Ferguson for the program, Brian Kavanagh for the organization and the committees they chair.

We are presenting in this Newsletter a long contribution highlighting the work done by the ‘new’ Toronto NeuroCritical Care group, which exemplifies what we wish to achieve with the Alliance concept: facilitate collaboration around the city, help to create research infrastructures that increase the potential for research, help to give visibility.

We think that Fundraising for IDCCM and Toronto will be a necessary step forward to consolidate the Alliance. In this regard, we are glad to participate in the 2019 Sir John and Lady Eaton Professor and Chair of Medicine anniversary and fundraising campaign: Pay it Forward! Of note, the initial $375,000 gift from Sir John and Lady Eaton in 1919 was made to provide ‘salary’ support to academic clinicians to provide them with protected time outside of the clinic to conduct research and engage in teaching! As always, it seems essential to remember the past!

I am sure 2019 will be a great year and we are pleased to offer you some art work from Laura Hawryluck to celebrate this New Year!

Dr. Laurent Brochard
Awards & Announcements

St Mike’s TNICU is as good as silver!

We are thrilled to announce that the TNICU and the TN inpatient units have both been awarded Silver Beacon Status from the American Association of Critical-Care Nurses (AACN). Beacon awardees set the standard for excellence in patient care environments by collecting and using evidence-based information to improve patient outcomes, patient and staff satisfaction, and credibility. We are in good company with many other hospitals in being honored with this award.

To be eligible to receive the Beacon Award, a unit must meet defined criteria in the following categories:

• Leadership Structures and Systems
• Appropriate Staffing and Staff Engagement
• Effective Communication, Knowledge Management and Learning Development
• Evidence-Based Practice and Processes
• Outcome Measurements.

AACN will acknowledge our Beacon Award for Excellence at the National Teaching Institute & Critical Care Exposition in May of 2019.

https://www.aacn.org/nursing-excellence/beacon-awards

We want to thank everyone that participated in this process as it was a long 50 page application to complete highlighting our strengths. Special thank you to Amanda McFarlan who gathered all the information from our team members and glued it all together into one big 50 page document. This took time and dedication on her part and she did an amazing job.

Andrew Baker and Elizabeth Butorac
We are very pleased to announce that Dr. Arthur Slushtky has been made a Member of the Order of Canada. This is a huge honor, for him obviously but also for Critical Care and Toronto! Please join me in congratulating Art!

Text of the announcement:
Arthur Slushtky, a U of T professor of medicine, surgery and biomedical engineering, is a pulmonary and critical care physician with more than 500 peer-reviewed publications and over 75 book chapters. In September, he stepped down after 18 years at the helm of research at St. Michael’s Hospital. With a bachelor’s and master’s in engineering from U of T, Slushtky’s basic research has been translated into lung protective ventilator strategies, which have led to decreased mortality of patients with acute respiratory distress syndrome. Slushtky’s research interests include acute respiratory failure, non-conventional ventilation, classic respiratory mechanics, and the primary role mechanical ventilation plays in the development of subsequent lung injury and multiple organ failure. Slushtky has been named a Member of the Order.

Dr. Alberto Goffi

Received a letter of recognition for the invaluable contributions he has made to simulation-based education in 2017-2018. The Practice, Performance and Innovation (PPI) unit of the Royal College of Physicians and Surgeons of Canada greatly appreciate the time, knowledge, and expertise that he has generously provided as contributors.

<table>
<thead>
<tr>
<th>Contribution Type</th>
<th>Contribution Summary</th>
</tr>
</thead>
</table>
| Workshop Facilitation         | Instructor for National ACE course from 07-03-2018 - 07-05-2018 in Ottawa  
                                | Instructor for the ACES course from 03-15-2018 - 03-17-2018 in Thunder Bay, ON                                                                         |
| Content Development and       | Peer Reviewer – Chapter of point of Care Ultrasound eBook Chapter in the Navigation Medical Emergencies: An interactive guide to patient management as part of the Acute Critical Events Simulation Program. |
| Maintenance                   | Lead Author of Breathing II – Invasive Ventilation eBook Chapter in the Navigating Medical Emergencies: An interactive guide to patient management as part of the Acute Critical Events Simulation Program. |

Thomas Piraino, RRT, FCSRT

November 15, 2018 – The American Society for Respiratory Care announced the recipients of their Specialty Practitioner of the Year Award. Thomas Piraino was named Specialty Practitioner of the Year for the Adult Acute Care Section. Representing various specialties in respiratory care, only eight individuals from across the U.S. were named recipients for the 2018 award.

Dr. Ewan Goligher

IDCCM is pleased to announce and congratulate Dr. Ewan Goligher as being the second Toronto IDCCM Scholar, for 2018!

He was selected among several very strong applications by an independent jury.

The IDCCM Scholars Program is to provide support and recognition for future research leaders in critical care. This represents a highly prestigious nomination.

His research program focuses on patient-ventilator interaction and mechanisms of lung and diaphragm injury during mechanical ventilation with the goal of improving ventilation strategies to enhance patient outcomes.
Dr. Martin Urner
He has been awarded the Vanier Scholarship. The Vanier is one of the most prized doctoral awards across the country and will provide Martin with full funding support over the next 3 years as he completes his research.

Drs. Warren Lee and Xiao-Yan Wen
At the Global Healthcare Innovation Academy 2018 competition, in Hong-Kong, came as second runner-up. Project Title: Discovery of Novel Drugs for Severe Influenza

Dr. Shelly Dev, Dr. David Klein, Dr. Jan Friedrich
They have been recognized by University of Toronto medical students as one of the top 10% of teachers in the MD Program. Congratulations!

Dr. Shelly Dev
Shelly Dev has been awarded the University of Toronto undergraduate teaching excellence award for 2017-18.

Lastly, some recommended reading from Shelly:
https://www.theglobeandmail.com/opinion/article-pulling-the-plug-on-the-pulling-the-plug-mentality/

---

2018 Anniversaries and Celebrations!

50th Anniversary of Critical Care at Sick Children Hospital
60th Anniversary of Critical Care at Toronto General Hospital
and the establishment of the H. Barrie Fairley Professorship in Critical Care

---

SickKids Department of Critical Care Celebrated 50th Anniversary

In 2018, the Critical Care Program at The Hospital for Sick Children celebrated its 50th year of service! In 1968 the opening of the McLaughlin intensive care unit provided the venue for one of the first ICUs for children in the world. The Program grew. It is the largest in Canada and is recognized as amongst the best in the world for clinical care, education and research. Since inception, we have grown to 42 beds, over 2,400 admissions and 14,000 patient days per year; in November 2017 we admitted our 60,000th patient. We have trained over 400 critical care physicians and are very proud of the impact they have had worldwide in the care of critically ill children. Throughout this past year a number of activities took place and culminated in the 50th Anniversary Gala on November 10th, 2018 at the Liberty Grand in Toronto.
The PRACTICAL Series kicked off the celebrations in January, and continued into October. This series consisted of 7 academic symposia focusing on advancing critical care, and included themes around ECLS, the immunocompromised child, advances in respiratory care, cardiocirculatory dysfunction, continuing critical illness, solid organ transplantation and acquired brain injury. The sessions provided practical and evidence-informed information and experiences to advance understanding, stimulate reflection, and illustrate best practices when caring for children and families experiencing a critical childhood illness or injury. With an audience of over 400 frontline healthcare providers in attendance cumulatively, and with many viewing online from around the world, the PRACTICAL Series was a great success.

Finally November approached, and multiple academic activities took place in Toronto during the week leading up to our Gala event on November 10th. First there was the Risky Business Conference from November 5th to 6th. This conference took a unique look at risk management in healthcare and included a wide range of excellent speakers, drawing in nearly 150 attendees. Following this was the Canadian Critical Care Canada Forum (CCCF) from November 7th to 9th. During the final day of CCCF, an alumni forum was held, allowing former colleagues catch up and hear experiences from many of SickKids’ past Critical Care trainees.

Our main festive celebration, was the amazing 50th Anniversary Gala on November 10th at the Liberty Grand in Toronto. Nearly 600 people attended this celebration, including current SickKids staff from many departments, alumni from the Critical Care Program, and friends of the program. Words from those representing patients, leaders and trainees echoed the themes of the evening: quality care, commitment and compassion and etched into our past, present and future. It was a great evening - a moment to pause and celebrate the depth and breadth of the contributions from the SickKids Critical Care Program and reflect on the next 50 years.

We are grateful that so any of our friends and colleagues in critical care from across Toronto could join us and celebrate at the Gala, and that Laurent was able to say a few words on behalf of the IDCCM. This IDDCM is unique in the world, very impactful and we at SickKids look forward to our ongoing collaborations and friendships.

Thank you, Peter Laussen.

Dr. Peter Laussen (left) Current Chief of the Department of Critical Care Medicine with Dr Geoff Barker, Chief of the Department from 1981 to 2000.
As I am sure you are aware by now that after 30 years of truly remarkable service, Dr. Peter Cox will be retiring from the Department of Critical Care Medicine and The Hospital for Sick Children on December 31st. We will miss Peter dearly; he has been an iconic clinician and leader at SickKids for many years, and done so with such generosity, warmth and humility. Peter started a Fellowship in Paediatric Critical Care at SickKids in July 1987, and was appointed as a Staff Physician in the Department of Critical Care Medicine in 1989. Since 1996, he has been the Clinical Director of the PICU, and Division Head of the PICU since 2006. He is a professor of anaesthesia and paediatrics at the University of Toronto.

There are few people that have shaped paediatric critical care worldwide as Peter has. A master clinician with clear insights and perspective, Peter has been a wonderful teacher and mentor to nearly 400 fellows and residents in critical care from 40 countries who have subsequently gone on to make an impact on paediatric critical care all over the globe.

In recognition of his immense contributions, we are pleased to announce the establishment of the Dr. Peter Cox Quality Initiatives and Education in Critical Care Medicine Endowment Fund. If you would like to contribute to the endowment in honour of Dr. Cox, please contact Nancy Horvath, Director, Major Gifts at SickKids Foundation, at (416) 813-8602 or nancy.horvath@sickkidsfoundation.com. It is also possible to make a donation online at www.sickkidsfoundation.com. You may click the “donate” button – and in the Area or Purpose Field, please note the “Dr. Peter Cox Quality Initiatives and Education in Critical Care Medicine Endowment Fund.”

While a search continues for the next PICU Division Head, we are very pleased to announce that Dr. Brian Kavanagh has agreed to step in as the interim Division Head. Dr. Kavanagh graduated from University College Dublin (Ireland) in 1985. Following residency in Internal Medicine in Dublin and in Anaesthesia (residency and fellowship) in Toronto, he trained in Critical Care Medicine in Stanford. He returned to the Toronto General Hospital in 1994 and in 1999 moved to the Hospital for Sick Children where he is a clinician-scientist and holds the Dr. Geoffrey Barker Chair in Critical Care Medicine. His laboratory investigates mechanisms of ventilator-induced lung injury and the actions of carbon dioxide in the lung. Dr. Kavanagh is the chair of Critical Care Canada Forum, and is Associate Editor (Critical Care) and Editor (Anesthesiology). In 2017, he completed two terms as Chair, Department of Anesthesia, Faculty of Medicine, University of Toronto.

Please join me in thanking both Peter and Brian.
EDUCATION
University of Toronto, Adult Critical Care Medicine Residents 2019 - 2021

We are 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 7 of our MOH positions were filled, as well as 1 additional sponsored position. Many thanks to all faculty and trainees who participated in the interview day on October 12th at the Estates of Sunnybrook.

Please join me in welcoming the following residents who will commence their training as of July 1, 2019:

1. Sissi Cao (University of Toronto)
2. Victor Dong (University of Alberta)
3. Amanda Formosa (Dalhousie University)
4. Casey Park (McMaster University)
5. Prateek Sehgal (University of Toronto)
6. Shaurya Taran (University of Toronto)
7. Vatsal Trivedi (University of Ottawa)
8. Ahmed Al Khathlan (GW School of Medicine and Health Sciences)

Congratulations! We are delighted that you have chosen the University of Toronto for this next phase in your training!

David Hall, MD, PhD, FRCP

The Festive Academic Half Day group photo

Competency By Design – Update

Competency By Design (CBD) is officially rolling out for Critical Care Medicine in July 2019.

Over the next few months, the Residency Program Committee will provide regular updates on the implementation process.

The list of Entrustable Professional Activities (EPAs) for Critical Care Medicine is now available. Each of these activities will be assessed repetitively in the clinical or simulated environment throughout the academic year.
Competency By Design - Update (continued)

During the Transition to Discipline stage (Months 1-3 of critical care training), assessments will focus on the following EPAs:

1. **Recognizing, assessing and** providing initial management for patients who are critically ill, seeking assistance when appropriate;
2. **Transferring clinical information** between health care providers at handover;
3. **Initiating and leading resuscitation** for patients who are unstable;
4. **Coordinating patient care** and supporting team members in the ICU setting;
5. Performing the **basic procedures** of CCM;
6. Providing **routine updates** to patients and families.

During the Foundations of Discipline stage (Months 4-6 of critical care training), assessments will focus on the following EPAs:

1. Evaluating and managing uncomplicated and/or routine patients requiring **mechanical ventilation/respiratory support**;
2. Evaluating, stabilizing, and managing patients who are critically ill and presenting with **common ICU conditions**;
3. **Co-leading** multidisciplinary teams;
4. Performing the **common procedures** of CCM;
5. Identifying and providing care for patients’ and their family’s needs around the **end-of-life**;
6. Developing and implementing **learning plans**;
7. **Teaching and supervising** junior physicians and other health care professionals.

During the Core of Discipline stage (Months 7-20 of critical care training), assessments will focus on the following EPAs:

1. Managing patients with **respiratory failure**;
2. Managing patients with **multisystem organ dysfunction**;
3. **Conducting daily clinical rounds**;
4. Performing the **advanced procedures** of CCM;
5. **Supervising, assessing**, and coaching junior colleagues;
6. **Managing the resuscitation** of patients who are critically ill;
7. Caring for patients with **chronic and/or organ support-dependent** critical illness and their primary caregiver(s);
8. Identifying, assessing, and managing potential **organ donors**;
9. Recognizing and providing care for **patients who are vulnerable** and critically ill;
10. Participating in and/or contributing to a **scholarly work**;
11. Managing the **transport** of patients who are critically ill;
12. Identifying and addressing **patient safety** incidents and contributing to a culture of safety.

During the Transition to Practice stage (Months 21-24 of critical care training), assessments will focus on the following EPAs:

1. **Coordinating the delivery of resources** and care for patients who are critically ill;
2. Conducting **scholarly work**;
3. **Debriefing resuscitations** and other critical events;
4. Demonstrating **self-directed personal and professional development**;
5. Contributing to continuous **quality improvement initiatives** that addresses system-level safety or quality concerns.

* In the **next Newsletter**, we will review keys features of **Workplace-Based Assessments**.

**TO LEARN MORE ON CBD AT UOFT, VISIT** HTTPS://WWW.DEPTMEDICINE.UTORONTO.CA/COMPETENCY-BASED-MEDICAL-EDUCATION.

-- Drs. Dominique Piquette, David Hall & Christie Lee
Welcome Dr Briseida Mema, New Program Director, DCCM at SickKids

Dr. Briseida Mema has been appointed as the next Program Director for the Department of Critical Care Medicine at SickKids. Briseida is indeed a natural fit for this role given her experience and research in education to date, and in particular her expertise and vision for the future. We have important challenges ahead with the implementation of Competency by Design program, and we are confident that we will be able to navigate this under Briseida’s leadership.

We know Briseida for her wonderful clinical acumen and the superb care she provides for patients in our Unit. She completed a Masters of Health Professions Education at the University of Illinois, and in 2018 was promoted to the rank of Associate Professor of Pediatrics at the University of Toronto. She has broad experience in medical training at the bedside and has organized numerous teaching opportunities and curricula for trainees. She is currently organizing the second intensive simulation training and assessment course for Canada-wide pediatric critical care trainees (TACTICS), a one-day course that focuses on team training and assessment in high-stakes but uncommon scenarios. This is a very important course, and is led by Briseida with support from colleagues across Canada. As further testament to her abilities as an educator, Briseida has won prestigious awards including the Harry Bain award in 2012 when she was voted by pediatrics residents as the teacher of the year, and the University of Toronto Critical Care Teaching Award 2017-2018 when she was voted by trainees at SickKids as the outstanding teacher of the year. At an international level, Briseida has been very impactful, having presented and given over 50 workshops and lectures on curriculum development and assessment in over 10 countries.

Briseida follows a long tradition of excellence in education in the Department. I wish to acknowledge the important leadership by Afrothite Kotsakis and Tilman Humpl as the previous program directors over recent years, and of course the leadership Peter Cox has provided over so many years leading the Fellowship program. Peter’s impact is truly global, so many fellows mentored and in doing so, has helped shape our field. We will have additional opportunities to thank Peter before his retirement at the end of the year.

The Program Director is a vital leadership role within the department, and we are really pleased that Briseida has agreed to lead this program going forward.
Here are the 2018 updates from the University of Toronto Neurocritical Care Alliance for the inter-hospital dissemination of neurocritical care practices and research.

RESEARCH
Interprofessional neurocritical care research
This past year, our interprofessional team presented their results at a number of international meetings. Grace Walter (Nurse Educator at Sunnybrook) presented our work on cerebral perfusion pressure measurement and treatment practices for acute brain injury at the International NeuroTrauma 2018 meeting, Rebecca Sinyi (Nurse Manager at TWH) presented the results of TWH’s novel in situ interprofessional neurocritical care simulation curriculum that Rebecca and Alberto created to foster crisis resource management skills at the International Neurocritical Care Society Meeting in Boca Raton, and finally Sai Thavendran and Kitty Cheung presented their Krembil-funded research project looking at the inter-rater reliability of visual pupil examination in comparison to the pupillometer at the World Federation of Neuroscience Nurses meeting.

AWARDS
Inaugural Ernst A. Rodin Fellowship
Dr. Rishi Laligudi Ganesan (SickKids) is the inaugural recipient of the Ernst F. Rodin Distinguished Fellowship by the American Clinical Neurophysiology Society (ACNS) & the American Clinical Magnetoencephalography Society (ACMEGS). This fellowship gave him the opportunity to visit New York Presbyterian/Columbia University Medical Center’s Neurological Intensive Care Unit for a month to observe Dr. Jan Claassen and his team in action, learning about their clinical multi-modal neuromonitoring program and their advanced EEG signal processing based research. During this month-long stint, he also worked on a research project on quantitative EEG parameters as a marker of cerebral ischemia associated with fever.

EVENTS
Neurocritical Care Masterclass
We are now in our third year of the CCCF Neurocritical Care Masterclass, which was another smashing success! This year we had record attendance, with 94 attendees including several from around the world. This year’s line-up of speakers included neurointensivists, neurologists, neurosurgeons and neuroradiologists. We had a stellar list of experts from around the world with this year’s international faculty including Jan Claassen and Michael Diringer, as well as expert Canadian Faculty including Alexis Turgeon and Damon Scales. We received a great deal of very positive feedback from the attendees and are now looking forward to planning next year’s event (https://neurocriticalcaretoronto.org).

Pediatric Neurocritical Care Retreat
In October, as part of the Practical Series for the 50th year celebration of PCCM, the Department of Critical Care Medicine at Sick Kids held a day-long PRACTICAL session on ‘Advancing care for the critically ill child with acquired brain injury’. This well attended event included reviews and practical hands-on sessions on the current neuromonitoring and neuroimaging technologies for the diagnosis and management of acute brain injury, with speakers from neurology, neuroradiology and neurocritical care. The YouTube videos of the didactic sessions can be found on https://bit.ly/2UU7E0v.
EDUCATION

Adult neurocritical care education

We are now in our second year of the recently developed Neurocritical Care Module for the University of Toronto Critical Care Medicine program. This consists of 10 half days over the course of 2 years with the aim of providing the knowledge, skills, and attitudes required by critical care trainees to evaluate, stabilize, and manage critically ill patients presenting with routine or complex neurological illnesses. Nearly 100% of our first year of trainees are now ENLS certified.

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Junior CCM Trainees</th>
<th>Senior CCM Trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Neurocritical Care Physiology Primer</td>
<td>Neuroimaging 101</td>
</tr>
<tr>
<td>Week 2</td>
<td>Emergency Neuro Life Support (ENLS) #1</td>
<td>Mechanical Ventilation Considerations in Brain and Spinal Cord Injury</td>
</tr>
<tr>
<td>Week 3</td>
<td>Emergency Neuro Life Support (ENLS) #2</td>
<td>Surgical and Interventional Radiology Considerations in Neurocritical Care</td>
</tr>
<tr>
<td>Week 4</td>
<td>Emergency Neuro Life Support (ENLS) #3</td>
<td></td>
</tr>
<tr>
<td>Week 5</td>
<td>EEG interpretation and application of multimodal neuromonitoring</td>
<td></td>
</tr>
<tr>
<td>Week 6</td>
<td>AM: Neurocritical care simulation</td>
<td>PM: Neurocritical care simulation</td>
</tr>
</tbody>
</table>

Pediatrics neurocritical care education

In Sick Kids, across both the CCCU and PICU, there has been a focus on the enhancing brain wellness.

1. **Education on Quantitative EEG use for bedside critical care providers at Sick Kids:** Due to changes in resource availability, our neurophysiology and neurology divisions could no longer support overnight review of continuous EEG in critically ill children. To fill this gap, over the last 6 months, the Department of Critical Care Medicine in collaboration with the Division of Neurology and the Neurophysiology lab has initiated didactic and hands-on education sessions for registered nurses and critical care fellows. The focus is on empowering the critical care providers to use amplitude-integrated EEG (aEEG) and color density spectral array (CDSA) for seizure screening and identification at the bedside. Abnormalities identified by the bedside reviewer on QEEG then triggers a focused review by the neurologist-on-call.

2. **PICU Delirium Working Group:** The SickKids PICU Delirium Working Group is implementing the initiation of Cornell Assessment of Pediatric Delirium (CAPD) screening in the pediatric critical care units. The education sessions on ‘Delirium Prevention, Screening, & Management in the CCU’ was attended by 350 nurses and 25 fellows!

3. **SickKids Data Science Team:** Newborns and infants who have heart disease are at risk of poor perfusion to their brain as a result of their critical illness and low cardiac output. By ensuring all patients receive cerebral NIRS monitoring, we hope to detect these low cerebral perfusion states sooner and implement management strategies that would ensure these patients, and most importantly their brains, spend as little time in a low perfusion state as possible. To this aim, we've completed education sessions on ‘Acuity Based Patient Monitoring’ which was attended by 180 nurses and 25 fellows and nurse practitioners!

Neurocritical care fellows’ corner

**Pediatric neurocritical care fellows**

Canada’s only Pediatric Neurocritical Care Fellowship was started in 2013 at the Hospital for Sick Children (SickKids). To date, 3 fellows have completed the fellowship, which requires one year of additional training following the completion of a Pediatric Critical Care Fellowship. They include Nitesh Singhal, Anusha Ganeshalingam, and Rishi Lalgudi-Ganesan. Nicole McKinnon is the current and 4th fellow in the program. Dr. Singhal is currently PICU faculty at the University of Queensland, Australia; Dr. Ganeshalingam is PICU faculty at Starship Children’s Hospital, New Zealand and Dr. Lalgudi-Ganesan is a clinical/ RESTRACOMP-CBMH Research Fellow at SickKids (Picture: Nicole & Rishi). The unique inter-disciplinary program includes rotations in pediatric critical care, adult neurocritical care, acute care neurology, epilepsy, electroencephalography, neurosurgery, stroke, neuroradiology and neurorehabilitation.
Beyond these rotations, the fellows spend several weeks as “junior” staff physician in the PICU, in preparation for next stages in their careers. Additionally, the fellows have the opportunity to collaborate with faculty on research projects during the year. Currently, Rishi is working with Dr. Guerguerian on developing a novel EEG-based neuromonitoring tool while Nicole is working with Dr. Hutchison on identifying early serum biomarkers for predicting outcome following traumatic brain injury. For more information on the fellowship - please see the link: http://www.sickkids.ca/Critical-Care/Physician-Education/Specialty-Paediatric-Critical-Care-Training/Specialty-Paediatric-Critical-Care-Training%20.html

**Adult neurocritical care fellowship**
The subspecialty of neurocritical care recognizes the special health needs of this critically ill patient population and aims to further understand the effects of critical illness on the vulnerable nervous system. Through the adult neurocritical care fellowship at Toronto Western Hospital, fellows master a body of knowledge concerning the care of critically ill patients with neurological disorders and incorporate this information into clinical practice, education and research. Two fellows have now completed the adult neurocritical care program at Toronto Western Hospital. Sacha Schweikert was our first fellow, who is now ICU faculty at the Sir Charles Gairdner Hospital in Perth Australia, and Alaa Mohamed, who is our recent neurocritical care alumnus. Understanding the need for interdisciplinary collaboration in this field, fellows spend one year rotating through adult neurocritical care, stroke, neurology, electroencephalography, neuroradiology, neuroanesthesia, and neurosurgery. In addition to these rotations, Alaa rotated around the University of Toronto adult neurocritical care units including Toronto Western, Sunnybrook and St Michael’s Hospitals. Alaa is now undertaking additional training at Sunnybrook Trauma Centre and continuing her city-wide project to evaluate the effects of hyperoxia on critically ill patients with subarachnoid hemorrhage with Drs. Martin Chapman and Victoria McCredie.

**Neurocritical Care Toronto website and global identity**
We have launched our neurocritical care website (https://neurocriticalcaretoronto.org) for the Masterclass this year and will be expanding the content over the next 2 months to showcase the 4 pillars of neurocritical care excellence in Toronto (St. Michael’s, Sunnybrook, Sick Kids and Toronto Western). Believing that social media enhances learning, networking and helps foster the spirit of collaboration within the Neurocritical Care community, the Toronto Neurocritical Care Twitter account @UofTNeuroCrit received a lot of interest during our coverage of #NCCMasterclass this year. And finally, we created our logo that will represent us moving forward: four sections of the brain representing our 4 neuro centres and the CN tower to symbolize the spinal cord and embody Toronto (reflecting the IDCCM logo created by our very own neurointensivist Alberto Goffi)!

**Neurocritical Care Society Annual Meeting to be held in Canada next year!**
It is a very exciting time for Neurocritical Care in Canada as we continue to grow as a subspecialty. As well as partnerships with the Canadian Neurological Sciences Federation and the Canadian Critical Care Society, the Canadian Neurocritical Care Society is now a recognized Global Partner of the Neurocritical Care Society. In addition, the Neurocritical Care Society 17th Annual Meeting will be in Vancouver next year, which Jeff, Andrew and Vicki are helping to organize.

*Thank you - Victoria McCredie.*
Neurocritical care publications for 2018


An update on End-Of-Life initiatives, from Toronto Western Hospital

Since their inception, Power of Attorney for Personal Care documents have not changed substantially in either their content or the manner in which they are created (as an add-on to estate planning in other words how you live is less important than what happens to your stuff after you die). Their wording is usually vague and boiler plate, their use of meaningless terms such as “heroic measures” is not helpful and they are typically unmoored from any real clinical contexts focusing instead on what medical interventions people think they want with no actual situational awareness. These issues are particularly challenging at times when SDMs are asked to decide how much negative change from the person’s usual quality of life would be acceptable and what degree of certainty is necessary to the person who can’t speak for themself at this crucial time. To address these persistent problems, Dr Singh and Dr Richardson and Dr Hawryluck have created a new guide to help people develop their POA for personal care documents. The guide’s goal is to change the approach to the POA process in ways that reflect the importance of such documents, important changes seen in medical practice to ensure POAs for personal care are both person-centered and personalized. The proposed new guide achieves this goal by asking people to think and talk to their SDM about what makes them happy, what do they enjoy doing and what gives life meaning for them- in essence “what makes you, you?” After walking people through some key self-reflection questions and in recognition that many people find such reflection challenging, the guide outlines different potential outcomes of medical treatments focusing on different levels of physical and cognitive disabilities requiring different levels of supportive care. Each scenario is followed by questions that ask people to discuss with their SDM whether such levels of function would be acceptable. In this way, the new guide focuses on creating POAs for personal care that describe how a person would want to live and aim to reduce statements on specific treatments and specific diagnosis which neither people nor their lawyers really understand. The first draft was completed and we thank all those who provided feedback ranging from family physicians and medical specialists to legal experts in estate planning, and the Ontario Bar Association.

Dr Hawryluck, with Ms. Lora Patton, the Vice Chair of the Consent and Capacity Board (CCB) hosted an educational half day with the goal of discussing how CCB hearings can be changed to promote a more patient centered focus and reduce unnecessary procedural delays while maintaining due process. To achieve this goal Dr Singh, Dr Healey, Dr Dev and Dr Chapman spoke to the experiences of the patient, SDMs and ICU teams before a decision is made to engage the CCB, during the actual hearing and after a decision is rendered. Dr Hawryluck ended the presentations by outlining some simple ways and suggesting questions that the CCB should ask to ensure the person at the heart of such issues, the patient, is no longer lost in the procedural fray. This half day engendered very open discussions and the feedback from CCB members was very positive. Ms Patton has completed an internal review of Form G and Form D CCB hearings, procedural issues/timing to completion and outcomes. Plans to continue to work to improve the consistency and transparency of CCB hearings are currently being discussed including how we may be able to help in a non-partisan way to ensure a high quality process is achieved for patients and all stakeholders.

Dr Hawryluck was also invited to speak to the provincial Public Guardian and Trustee about EOL issues. The discussion included addressing some of the challenges faced by case workers, explored questions that case workers can consider asking to ensure patient focused approach is paramount and discussed ways to obtain a360 degree perspective on the patient’s lived experiences by engaging with the interprofessional critical care team when completing their evaluations and participating in EOL decision - making with medical teams. The feedback was very positive and many commented on how practical and helpful the session was. Case workers went on to comment on how helpful they find the Toronto Western Hospital team’s approach to working with them and noted their written documentation, requests for decisions are very comprehensive. It was suggested that Toronto Western consider developing a guide for others.

By Dr. Hawryluck

Revisions are underway currently and if any IDDCM faculty would like to provide input on the latest draft, please contact Dr Hawryluck.
Toronto Addis Ababa Academic Collaboration (TAAAC)

The University of Toronto and Ethiopia’s Addis Ababa University (AAU) have had a long-standing collaboration with the objective of developing and advancing postgraduate training programs in medicine and other disciplines. This year, with the leadership of Neill Adhikari and Alberto Goffi and their partners at Addis Ababa University, the Toronto Addis Ababa Academic Collaboration (TAAAC) is delivering a curriculum developed for Ethiopia’s first Critical Care Medicine Postgraduate Fellowship Program. To implement the curriculum, this past Fall a group of IDCCM Faculty members, a CCM fellow, and an ICU clinical pharmacist had the opportunity to work in Addis Ababa with the current critical care fellows at AAU: Biruk Girma and Finot Debebe. Formal and bedside teaching, simulation sessions and assistance with networking to create an antimicrobial stewardship program were part of the activities carried on during the visit.

This was the second trip in 2018, following an initial visit in February-April. The curriculum objectives are also being delivered longitudinally via teleconferences throughout the year.

The professionals at Black Lion (Tikur Anbessa) Hospital were welcoming and demonstrated an intense drive to collaborate to educate future critical care leaders in Ethiopia. Achieving this objective is essential, since the demand for critical care services is high. Careful resource management, multidisciplinary collaboration, and up-to-date knowledge are the main priorities for these healthcare professionals who care for complex medical and surgical patients. Although the delivery of critical care in Ethiopia is different and often met with obstacles, the experience this Fall was overwhelmingly positive, and enriching from both a medical and cultural perspective. The next visit to Addis Ababa for TAAAC’s Critical Care programme will be in February 2019. If inspired or interested to teach on one of these trips, please contact Alberto Goffi or Neill Adhikari.

Thank you - Alexander White, Matteo Parotto, Alexandra Cheung

---

Ramyas Nepal Trip Reflection: Work That Inspires and Brings out the Finest in us

“Alone we can do so little; together we can do so much.” Helen Keller

The fast pace, ever changing nature of healthcare necessitates both strong professionalism and Nursing leadership skills in order to meet the needs of critically ill patients and provide high quality, highly complex care to improve patient safety, decrease length of stay and achieve good outcomes. In many low income countries, nurses, mostly young women, living in societies in which women struggle to become educated and family life is hierarchical, do not feel or are actually not empowered to speak up once they have identified a change or an acute deterioration in a patient’s clinical status. Many nurses (there are no RTs) are not trained to understand the basics or intricacies of mechanical ventilation and patient-ventilator interactions and adjustments remain a black box to those who should be the first to identify warning signs of problems and failures to meet desired targets whether for brain or lung protective strategies. These problems have been identified repeatedly in Nepal. Now that concerted efforts to systematically train critical care nurses has occurred thanks largely to the yearly volunteer work by Ms Ramya Satyanarayana partly funded in the past by the Krembil Foundation.
The goal of the last Toronto Western Hospital MSNICU team collaboration with Critical care in Nepal was to focus on nursing professionalism, advocacy and leadership skills and in using a Train the Trainer model to improve understanding, knowledge and skills in mechanical ventilation and adjusting ventilators. To achieve these goals Ms Ramya Satyanarayana RN and Ms Lisa Kappukatt RRT volunteered their time and traveled to Nepal spending 6 and 2 weeks respectively.

Each day she was in Nepal Ms Satyanarayana conducted educational topics for critical care nurses at the new Mediciti Hospital on a variety of critical care subjects, always emphasizing the advocacy role nurses need to play at the bedside in order to improve the patient centered nature of the quality of care. She led by example in participating in Quality Improvement rounds and exploring with the Nepali team how to initiate new approaches to addressing challenges they identified. To overcome the cultural divide and promote speaking up, Ramya, with the help of Dr Laura Hawryluck’s mentorship, created an acronym “Am I an ADVOCATE?” (see figure 1). Recognizing that self-reflection on one’s role as a critical care nurse can only go so far without a positive working environment that seeks to engage nurses in actively improving the care of patients, they also devised the template QUESTION (figure 2) which asks nursing managers and administrators to reflect and devise ways to promote their nursing staff.

Working with some young, very engaged nurses at Mediciti Hospital, Ramya organized a one day symposium, on the topic “Empowering nurses as leaders.” She helped them choose topics and mentored them through what was for many their very first time speaking publicly. Nursing leaders from across Nepal were invited to attend the symposium held at Mediciti Hospital. Several Nurses were prepared to present interactive sessions on Nursing Professionalism, conflict management, and there were panel discussions on advocacy and case study discussions on the application of professionalism and leadership skills. Several hundred participants attended the symposium which, based on feedback, was a great success. The symposium and Ms Satyanarayana even made the front page of the Nepali newspapers.

Ms. Lisa Kappukatt Respiratory Therapist (RT), was assigned 2 bright and enthusiastic ICU nurses in Nepal Mediciti Hospital and using a Train the Trainer model she developed daily educational sessions on respiratory care and mechanical ventilation. The plan was that they would then present the information they learned to their colleagues at a later date. Lisa covered some core topics in the first week and she tried to do more practical work in the second week. This was the first time ICU nurses in Mediciti had had such intense, interactive teaching in mechanical ventilation and Lisa was impressed by their keenness to learn and she really enjoyed teaching them. The time went way too fast and Lisa wished she had more time to stay longer. She has kept in touch with the nurses in Nepal after coming back home to Canada. The Chief of ICU has plans for an RT-like team at Mediciti and the students trained by Lisa would be the first members. They have started working shifts as RCNs (Respiratory care nurses) and are continuing their learning.

Before she left Nepal, Ramya was a plenary speaker at the Nepal Critical Care conference where she reprised the importance of nursing professionalism, advocacy and leadership as her themes. With the help of Dr Hawryluck, she proposed an idea for collaborative research using the Am I an Advocate and QUESTION tools. Research in Nepal is an area in need of development and research in nursing is in its infancy. While it will take some time and effort to start, we are hopeful that these tools can form the basis of a change and quality improvement initiative in the future.

Volunteer work, giving back and mentoring others to succeed should be fundamental to critical care. Such moments bring out the best in us all. It’s an opportunity to appreciate and share knowledge and skills as a health care professional and brings the notion of equal access to healthcare that much closer to being a global reality. If anyone is interested in getting involved they can connect with Ms Satyanarayana, Ms Kappukatt or Dr Hawryluck.

Authors: Ramya Satyanarayana RN, CCRT & Lisa Kappukatt RT / Mentor: Dr. Laura Hawryluck MSc, MD FRCPC
A Self-reflection tool to re-own professionalism and leadership: Am I an ADVOCATE?

- Assess needs - self as professional with patient / family
- Discuss needs with key stakeholders - physicians/ managers/ administrators
- Vision for change - state your case
- Objectives/ goals to achieve
- Challenges - are you rising to the challenges? What are obstacles to success?
- Adjust objectives
- Trial - of change/ new role
- Evaluate outcomes

To promote a good working environment ....ask a QUESTION

- Query: what they do they think would help them grow as professionals?
- Understand: what makes them nervous?
- Encourage and provide real support in real time
- Safety and quality of care emphasis
- Trust / teach develop skills to overcome fears
- Identify areas for improvement and signs of burnout
- Outcome evaluation ...set a timeline
- Need to evaluate professional career/ leadership satisfaction
**IDCCM RESEARCH**

Some highlights and upcoming events:

1. **American Thoracic Society** - Drs. Geeta Mehta, Hannah Wunsch and Eddy Fan are tremendous advocates for the University of Toronto IDCCM program through their work as the program planning lead and successor for the International ATS meeting. Congratulations to each!

   **Program Chair**  Sangeeta Mehta, MD  Toronto, Canada
   **Program Chair-Elect**  Eddy Fan, MD, PhD  Toronto, Canada
   **Planning Chair**  Hannah Wunsch, MSc, MD  Toronto, Canada

2. **The IDCCM Alliance** is an initiative of the IDCCM research executive that is designed to foster collaborative research groups across adult and pediatric ICU research groups across the University of Toronto. The next Alliance Day will be held on **April 4, 2019**. This program also promises to be exciting as we target IDCCM research groups focused on Oncology Critical Care (Drs. Mehta, Munshi and Detsky) and on Education (Drs. Piquette and Parsharam). This is a half day event and please join us for this discussion of emerging University of Toronto IDCCM research groups!

3. **Art Slutsky Day** is the research highlight for our University of Toronto IDCCM community each year. It is held each June at the Munk School of Global Affairs and is a wonderful opportunity to pay tribute to the leadership and legacy of our former University of Toronto Critical Care Chair - Dr. Art Slutsky - and to celebrate the important achievements and stature of our diverse pediatric, adult and interprofessional critical care community across the University of Toronto. Please join us for another exciting **AS Day 2019** scheduled for **June 18**! This year, the **AS Day Visiting Professor will be Dr. Elie Azoulay**.

4. **Annual Brew Pub Evening** for Art Slutsky Day Attendees, University of Toronto Critical Care Alumnae, Faculty and Friends

   Each year, we launch the Art Slutsky Day festivities with a very special event the evening before to celebrate the graduating critical care fellow group and our Alumnae! It is a fun evening designed to bring trainees, alumnae, faculty and friends together for some final good-byes, good wishes and good cheer! The Brew Pub evening is held at the Mill St Brew Pub -Beer Hall- in the Distillery District and has already become a highlight and yearly tradition!

   Please join us for the **Brew Pub evening 2019** on **June 17**!

5. **IDCCM Alumnae Group and Community Outreach**

   The IDCCM Alumnae group has been newly established and will be led by Drs. Ingrid Morgan and Nava Maham. This group will aim to foster a close relationship among IDCCM alumnae, current trainees and faculty. They will lead the promotion and organization of several alumnae events each year including:

   1. **Annual Brew Pub Evening** prior to AS Day- Mill St. Brew Pub- Beer Hall- Distillery District- June
   2. **European Society of Intensive Care Meeting (ESICM)**- Variable locations- October
   3. **Canada Critical Care Forum (CCCF)**- Toronto- November
   4. **American Thoracic Society Meeting (ATS)**- Variable locations- May

   Drs. Morgan and Maham will also be actively engaged in community outreach and facilitating connectedness between interested alumnae and IDCCM researchers.

   Wishing you all the best this holiday season and a happy and healthy 2019!

   *Margaret Herridge*
   *Director of Research- IDCCM*
   *On behalf of the IDCCM Research Executive*
Nuts and Bolts of Research

NABOR: Grant Writing
On October 4, 2018 the IDCCM sponsored an afternoon session on grant writing. With over 25 participants from across the University, the session was moderated by Hannah Wunsch and Laurent Brochard. There were presentations from senior faculty, including Brian Cuthbertson, Gordon Rubenfeld, Niall Ferguson and Margaret Herridge. The afternoon ended with a mock CIHR grant review panel.

Save the Date! April 25, 2019
NABOR: Clinical Trials

Visiting Professor Program
The IDCCM hosted three visiting professors this fall, with a wide array of expertise. Dr. Bahkti Patel, from the University of Chicago spoke on “Improving neuromuscular outcomes in the ICU: lessons learned from clinical trials in early mobilization and helmet ventilation”. Dr. Jeffrey A. Gold, from Oregon Health & Sciences University spoke on “If a CBC is drawn and no one mentions it, was it really done?, Understanding data communication on ICU rounds”, and Dr. Rose Hatala from University of British Columbia spoke on “Exploring meaningful feedback between learners and supervisors in the workplace.

Please save the date for the winter/spring 2019 visiting professors:
Feb 5: Kathleen Liu
Feb 26: Deepika Mohan
April 16: Lauren Ferrante
May 14: Sue Bodine
June 18 (Slutsky Day): Elie Azoulay

High Impact Publications from IDCCM Members (Aug-Dec 2018)


• Negative trials in critical care: why most research is probably wrong. Laffey JG, Kavanagh BP. Lancet Respir Med. 2018 Sep;6(9):659-660.

• Can a Physiologic Insight 'Resuscitate' Research in CPR? Scales DC, Kavanagh BP. Am J Respir Crit Care Med. 2018 Nov 1. [Epub ahead of print]


• "There is Nothing New Except What Has Been Forgotten": The Story of Mechanical Ventilation During Extracorporeal Support. Fan E. Am J Respir Crit Care Med. 2018 Oct 3. [Epub ahead of print]


• The airway occlusion pressure (P0.1) to monitor respiratory drive during mechanical ventilation: increasing awareness of a not-so-new problem. Telias I, Damiani F, Brochard L. Intensive Care Med. 2018 Sep;44(9):1532-1535.

• Adjunct and rescue therapies for refractory hypoxemia: prone position, inhaled nitric oxide, high frequency oscillation, extra corporeal life support. Ferguson ND, Guérin C. Intensive Care Med. 2018 Sep;44(9):1528-1531.


Happy New Year

I wish you in this New year, to remain happy and joyful, and to be successful in all phases of life.

Dr. Laurent Brochard and staff
Jan 2019