

IDCCM Newsletter

Summer 2023

Department News, Academic Events Awards, Grants, & Recognition Publications & many more...





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MESSAGE FROM THE DIRECTOR



Dear colleagues,

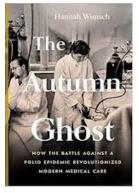
Welcome to this Summer Newsletter.

I first hope that you enjoy the warm summer in Toronto and genuinely appreciate the sunny days. I also hope that all of you had the opportunity for a break, away from work and stress. Unfortunately, even during these supposedly relaxing times, it is more and more frequent to be in the middle of a massive storm, a heat wave, or a flooding to cite a few. Yes, climate change is frightening and it challenges our degree of certainty about what could happen on earth and is really happening. There is no question that critical care will also have to adapt to this new reality and prioritize reflections on the impact and consequences of natural disasters and what it means for the critical care community. Of course, pandemics are another big threat for us to be prepared and John Marshall is organizing an international conference on the Lessons of COVID-19 for Global Acute Care Research Collaboration, in Toronto on October 4 - 7, 2023. This is definitely very timely.

We had two fabulous events this past semester organized by Margaret with the Alliance Day and the Art Slutsky Day, welcoming prestigious guests (Michael Matthay for the Alliance Day and Adrienne Randolph for Art Slutsky Day). People were excited to be together again and showed the incredible depth of science produced in the city.

We are still in a difficult time post pandemic following the impact of COVID-19 on the mental health and well-being of health care workers, and this issue is highly prevalent in the ICU. Numerous convincing and impressive reports, including in Canada, have quantified the "numbers" of professionals presenting with symptoms of high stress, PTSD, depression, and anxiety, as well as estimating the degree of resilience. But we are not sure so far that we will do much better next time. We just see the consequences of the numerous people who moved away from their profession and we are at least aware that this aspect is of extreme importance.

This last Art Slutsky Day was the last for David Hall as program Director and we are delighted to welcome Jenna Spring taking this new role with enthusiasm and passion. A few words to say thank you again to Dave, who performed an outstanding job as Program Director and went through a pandemic and an accreditation and really helped, with his committee, to change the way we teach critical care in IDCCM and take care of our trainees.



We also said good bye to several people during Art Slutsky Day, including Hannah Wunsch, who, after launching her book describing the birth of critical care, decided to move to different horizons. Many thanks to Hannah, who made an enormous contribution to our Division over this past decade.

Laurent Brochard, MD

Division Director, Interdepartmental Division of Critical Care Medicine

IDCCM Promotions/Awards/Announcements.

Promotions:



Dr. Karen Burns is promoted to Professor



Dr. Claudia DosSantos is promoted to Professor



Dr. Eddy Fan is promoted to Professor

Dr. Lorenzo Del Sorbo is promoted to Associate Professor



Dr. Patrick Lawler is promoted to Associate Professor

Dr. Christie Lee is promoted to Associate Professor





Dr. Dominique Piquette is promoted to Associate Professor

Dr. Barbara Haas is promoted to Associate Professor (from Dept. of Surgery)



Congratulations to you all!

Announcement and congratulations!

Congratulations to **Dr. Roxanne Kirsch**, she has been appointed as the new Division Head for Cardiac Critical Care Medicine. Dr. Kirsch is a native of Saskatchewan. She received her Bachelor of Arts from the Department of History at the University of Saskatchewan and her Medical Degree from the Department of Medicine there. She went on to complete a residency in Paediatrics at Alberta Children's Hospital in Calgary and then fellowship in Paediatric Critical Care Medicine at Stollery Children's Hospital in Edmonton. Dr. Kirsch then trained in Cardiac Critical Care at the Children's Hospital of Philadelphia, where she remained as a staff physician in Cardiac Critical Care for 6 years. She also completed a master's degree in Bioethics at the University of Pennsylvania.



Congratulations to **Dr. Christie Lee,** she has been appointed as the new Site Lead for the Critical Care Department at Mount Sinai Hospital. She previously served in this position as Interim Lead.





Congratulations to **Dr. Jenna Spring,** she has been appointed as the new Program Director for IDCCM. Jenna, intensivists at Sinai, has a passion for education, and is also very involved in the Quality and Innovation track.

Congratulations to **Dr. Maria Jogova**, she has been appointed as the IDCCM Curricular Lead. She is passionate about teaching and medical education, particularly interested in communications training around goals of care discussions and the continuum of critical illness and care.



IDCCM Trainee Research Awards 2023:

We were delighted to announce the recipients of the IDCCM Trainee Research Awards 2023. Designed to provide research support for those not yet in a faculty position, the IDCCM gave out four \$10,000 awards. Thank you to all the applicants and the review committee for their time and effort. The winners are:

1. **Dr. Idunn Morris** (Research Fellow)

"Feasibility of Transvenous Phrenic Nerve Stimulation for Diaphragm Protection in Acute Respiratory Failure: STIMULUS I Clinical Trial"

Supervisor: Ewan Goligher

2. **Dr. Thiago Bassi** (Research Fellow)

""Study to investigate an association between brain activity and tidal volume in humans (BATMAN)-a pilot study""

Supervisor: Ewan Goligher

3. Dr. Antenor Rodrigues (Research Fellow)

"Susceptibility for Entrainment: role of Ventilator settings on the occurrence of Reverse triggering and its physiological consequences—the SEVeRe study"

Supervisor: Laurent Brochard

4. **Dr. Naheed Jivraj** (Resident, University of Toronto)

"Variability in Sedation Practices and Outcomes among Mechanically Ventilated Patients" Supervisor: **Hannah Wunsch**

5. **Dr. Candice Griffin** (Research Fellow)

"Healthcare professionals experiences with mistreatment, micro-aggression, discrimination and prejudice during the provision of patient care."

Supervisor: Dominique Piquette

Congratulations to everyone!

Art Slutsky Day 2023

Our IDCCM colleagues were delighted to come together- in person!!- for the first time in three years. COVID was a very difficult time for our specialty and it was so wonderful to rediscover community and to spend time celebrating all the research and education successes across our diverse adult, pediatric and Interprofessional faculty and trainees- and to honour the legacy of Art Slutsky.

The AS Day had another very strong attendance this year of up to 122 faculty, trainees, and other colleagues who joined us in person at the Munk Centre. Faculty judges vetted 52 abstracts encompassing basic and clinical science, quality, physiology and education contributed by our adult and pediatric trainees. We had 8 outstanding finalist abstract presentations, from which first (Irene Telias) and second prizes(Alicia Gibbs) were awarded. The breadth and quality of work remains exceptional and we have so much to celebrate within our university group!!

We continued our tradition of the IDCCM Interprofessional awards for both Pediatric and Adult colleagues and were thrilled to acknowledge the outstanding contributions to our community from Mark Todd (SickKids) and Nicole Marinoff (Sunnybrook)!

Dr. Adrienne Randolph served as our distinguished Art Slutsky Visiting Professor and she gave a very informative and timely talk on "Sepsis Research: Progress Made and Challenges Ahead". This was an excellent and comprehensive overview of the evolution of our understanding of sepsis and vision for the future- and especially poignant after the past few years with COVID. Thanks for such a wonderful talk and visit to our community, Adrienne!

Our own **Dr Hannah Wunsch** contributed a thoughtful and engaging talk on "A Journey into Publishing' and the lessons learned from her experiences researching, writing and publishing her new book "The Autumn Ghost" Congratulations on this important contribution and you will be missed here in Toronto!

Art Slutsky Day 2023-Abstract Winners

- Irene Telias 1st place Winner
- Alicia Gibbs 2nd place winner

Art Slutsky Day 2023-Finalist, Oral Abstract presenters.

- Igor Novitsky-Basso
- Francois Mathieu
- Eleonora Balzani
- Jose Dianti
- Cecilia Bianchi
- Constanza Velasco

Poster Moderation! Sincere Thanks!!







Alice Grassi John Granton Haibo Zhang Christie Lee Matteo Parotto Jeff Man Alejandro Floh Laurent Brochard Chris Yarnell Irene Telias Alberto Goffi Mika Hamilton Mike Sklar Lorenzo Del Sorbo Nava Maham **Andrew Helmers** Margaret Herridge Hannah Wunsch Gail Annich **Antenor Rodrigues** Bruno Ferreyro Anne-Marie Guerguerian Briseida Mema Stephen Lapinsky Joh Marshall Elaine Gilfoyle Haley Christian Warren Lee Jenna Spring **Dominique Piquette** Jane Batt Adrienne Randolph

We are extremely grateful to all the faculty who donated their time and expertise to Abstract Judging and

Thanks to everyone who worked so hard to make this year's Art Slutsky Day such a great success! I would like to extend a very special note of sincere appreciation to *Fahima Nasreen* for her incredible energy and enthusiasm!!

We look forward to seeing you all at the Mill St. Brew Pub night and the AS Day in June 2024!!!

Margaret Herridge, MD

Director of Research
Interdepartmental Division of Critical Care Medicine

Group Photo from Art Slutsky Day 2023



Photos: Some moments from Art Slutsky Day and End of Year celebration 2023



















Thank you all! See you next year!!



Dr. Mike Sklar have a baby girl! Congratulations! **Sydney Sklar**. Born in March 2023



Adult CCM Education News

A big congratulations to our graduating residents and fellows, as well as our annual award winners that were announced at Art Slutsky Day. It was so great to be able to come together in person for this year's event! A special acknowledgement to our outgoing Chief Resident and Chief Fellow, **Varuna Prakash** and **Andres Guzman**, for all of their advocacy and leadership over the past year.

Graduating Royal College Residents: Candice Griffin, Mathieu Hylands, Naheed Jivraj, Eugenia Lee, Francois Mathieu, Varuna Prakash, and Nasim Zamir.

Graduating Fellows: Rashed Alrehaili, Bishwo Amatya, Federico Angriman, Sweatha Balakrishnan, José Dianti, Bruno Ferreyro, Andres Guzman, Bruno Manetti Previero, Tania Rodriguez Ramirez, Aleksandr Sviatchenko, Julia Tejero Aranguren, Julien Turgeon, Stephan von Düring, and Anina Zbinden.

Site Teaching Awards:

· Community: Alvin Chang

• MSH: Jenna Spring

• SHSC: Martin Chapman

• Sick Kids: Luciana Rodriguez Guerineau

SMH: Michael SklarTGH: Ghislaine Doufle

• TWH: Ricardo Teijeiro Paradis

John Granton Award: Alberto Goffi Margaret Herridge Award: Geeta Mehta Simon Abrahamson Award: Naheed Jivraj

John Laffey Award: José Dianti

Brian Kavanagh Award: Tanya Ali Haj-Hassan **Afrothite Kotsakis Award:** Oliver Venettacci

We would also like to extend a warm welcome to all of the new trainees – we look forward to working with you! This year we will be transitioning back to in-person Academic Half-Day, which will be an excellent opportunity to build friendships and collaborations across the city. Additionally, thank you to **Jacob Michie** and **Varsha Venkataraman**, who will be taking over as Chief Resident and Chief Fellow.

Finally, I am honoured and excited to take on the role of Program Director. A huge thank you to **Dave Hall** for his outstanding contributions to our program and for making it such a great place to train. I look forward to working with everyone in this role and continuing to build on our world-class education program. Have a great summer, everyone!

Jenna Spring, MD

Program Director, Adult Critical Care Medicine





Photos from Art Slutsky Research Day 2023

Reflections on my time as Program Director

On May 1, 2023, I officially handed over the role of Program Director for Adult Critical Care Medicine (CCM) to Dr. Jenna Spring. I couldn't be happier that Dr. Spring was chosen to take over the role, and I have full confidence in her ability to lead the program and guide our trainees. During the transition, I will continue to offer my support to Dr. Spring as she assumes this new position.

Serving as Program Director has been the most rewarding and impactful part of my career thus far. Despite the challenges I encountered, the opportunity to contribute to the training of future critical care leaders and collaborate with exceptionally talented faculty made it all worthwhile. I would be remiss not to acknowledge the incredible work of our Program Administrators, first Stephanie Nardella and then Simon Chung.

My introduction to the Program Director role came with some pleasant surprises, such as the appointment of portfolio leads to support the program. Shelly Dev served as the wellness and mentorship lead, Christie Lee as the assessment lead, and Dominique Piquette as the curriculum lead. With such a capable team, success was practically guaranteed. Of course, there were also less pleasant surprises, like the unexpectedly close deadline for our internal review. However, I was fortunate to witness the tremendous support and expertise provided by PGME, who graciously extended the review timeline to allow me to settle into the role. A personal meeting with Glen Bandiera, the associate dean of PGME at the time, further reassured me that guidance was readily available.

Attending the New Program Directors boot camp at ICRE in Quebec City was a valuable experience. Besides meeting members of the accreditation team from the Royal College, the session provided insights into best practices for running a training program. Concurrently, the Critical Care field was preparing to implement Competency-Based Medical Education (CBME) nationally. In-person meetings were held in Ottawa, bringing together representatives from across the country. These gatherings provided a unique opportunity to meet other Program Directors and stakeholders and discuss the essential competencies for an intensivist.

The rollout of CBME was a significant endeavor, but with motivated site leads and experts like Christie and Dominique overseeing assessment and curriculum respectively, we were well-equipped. Thus began the "EPA hunger games," as some trainees playfully referred to the process. Just as we were becoming accustomed to the new assessment tools and curriculum changes, news of an emerging infectious disease in Wuhan, China, began dominating headlines. The impact of COVID-19 on Critical Care and all of us personally and professionally is well known. However, what I witnessed and will forever carry with me is how our trainees and faculty rose to the challenge and confronted it head-on.

Maintaining a training program amidst a global pandemic presented unique challenges we had never anticipated. Trying to develop well-rounded intensivists when electives were canceled and outbreaks and quarantines became commonplace was uncharted territory. Yet, our trainees exceeded expectations and excelled in every way. The trainees from the COVID era will always be remembered for their exceptional achievements, as they distinguished themselves in ways previous cohorts never had to. The personal toll was immense, and we all carry the scars from that time.

Despite the ongoing pandemic, the realities and responsibilities of the training program continued, with an onsite review by the Royal College in 2020, conducted virtually due to pandemic restrictions. Preparing the presurvey questionnaire prompted reflection on our program and instilled a deep sense of pride for the exceptional program we had built. The incredible graduates of our program stood as a testament to the hard work and dedication of our faculty. Ultimately, our on-site review was successful, and we received full accreditation with a regular review scheduled in 8 years. The past six years have been the most impactful and rewarding period of my career. Working closely with remarkably talented faculty members provided invaluable learning experiences. I had not fully recognized the extent of support and infrastructure offered by PGME or their unwavering dedication to supporting training programs and trainees. However, the true highlights and lasting memories are those of our trainees. They are the heart and soul of our training program, and their accomplishments are our collective successes. Witnessing their skill development and transformation into future critical care leaders has been a humbling experience.

I am incredibly excited about the future as we emerge from the pandemic with a robust training program and an exceptional group of trainees. There are still challenges to address as we refine our CBME curriculum, and meetings are already underway at the Royal College to develop a second iteration of our EPAs. We will continue striving to be a division that values equity, diversity, and inclusivity. I eagerly anticipate how the program will evolve and improve under the leadership of Dr. Spring as the new Program Director. I cannot imagine a better choice for the role.

David Hall, MD

Assistant Professor, Department of Medicine
Program Director for Adult Critical Care Medicine

University of Toronto



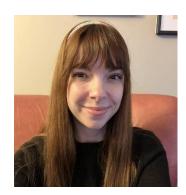




SickKids Paediatric Critical Care Medicine (PCCM) Training Program



Dr. Briseida Mema, MD, MHPE, RCPSC Program Director, Pediatric Critical Care Medicine



Sydney March, BA, BEd Education Coordinator

PCCM EDUCATION PROGRAM 2022-2023

The Pediatric Critical Care Medicine (PCCM) Program aims to develop clinically excellent physicians in the field of paediatric critical care. Each year, we accept trainees who are excellent clinicians, learners, and teammates. This years' program saw 25 trainees from all over the world.

CURRICULA

Medical Humanities

Faculty and trainees had another wonderfully full year of collaboration through the arts.

This group has been the recipient of Medical Humanities Education Grant for 3 years in a row. Faculty and trainees met and co-constructed art, meaning on experiences and a sense of connection and community.





Ontario Wide Academic Half Day Series

Cardiac POCUS

This year we extended the invitation to our Cardiac POCUS session to other Ontario PCCM programs. Ran by

Dr. Alejandro Floh and Dr. Oshri Zaulan, trainees can practice their skills on real life volunteers! We hope that next year we will have even more fellows from outside SickKids join us for this informative sim session!

Pediatric Neuro Critical Care

In November, we welcomed Dr. Barney Scholefield to speak at SickKids on "The Difficult Neuro-Critical Care Consult". PCCM trainees from across Canada joined us virtually to learn more about neuro-critical care, diagnosis, how to deal with uncertainties, and how to take care of themselves.



Wellness

Our Wellness Director, Dr. Seth Gray led various wellness debrief sessions throughout the year. In addition to these sessions, fellows participate in regular town halls, facilitated by our co-Chief Fellows. Here, they are given a chance to speak about any questions or concerns they may have with the program.

We also ensured there were many opportunities for social activities. Staff and trainees participated in many pub nights, bowling, dinners, etc.

For the first time in many years, we had our Fellow's Farewell event at Allen's on the Danforth! The SickKids Critical Care Department have had their end of year event at Allen's since 1989, however, we were not able to have it the past 3 years due to the pandemic.



CCM physicians, trainees, and administrative staff enjoying the end of year event at Allen's

EVENTS

Resident & Fellow Appreciation Week

The week started off with a presentation by Dr. Peter Cox on the history of the CCM fellowship program. We were joined online by some previous PCCM alumni as well!

We played Pictionary and Fellow Trivia, which tested everyone's knowledge of our fellows! We also participated in everyone's favourite Staff vs. Fellow relay, where we learned how competitive the CCM department can be.





Staff vs. Fellow relay participants

Our week of festivities culminated in an awards presentation which includes six trainee awards voted on by our department's Respiratory Therapists and Registered Nurses.

The Most Agile Laryngoscopist for Elegant Intubations – Dr. Terry Kong Kam Wa

The Most In-Depth Knowledge of Mechanical Ventilation – Dr. Luca Marchetto

The Most Calm Under Pressure – Dr. Oliver Venettacci

Creating the Most Harmonious Working Relationships – Dr. Constanza Velasco

The Most Timely Assessments of Patients – Dr. Veronica Bertozzi

The Most Polished Proceduralist - Dr. Terry Kong Kam Wa

The Most Collegial is an award that is voted on by all the trainees. This year it was tied!

The Most Collegial – Dr. Liron Talmi & Dr. Oliver Venettacci



Group photo after the Staff vs. Fellow relay competition

Scholarly Showcase

We held our annual Scholarly Showcase in June to highlight the research and scholarly activity that our trainees have worked on over this past academic year. A huge thank you to our organizers Dr. Briseida Mema, Program Director, PCCM and Dr. Anne-Marie Guerguerian, Research Director, PCCM, as well as our showcase co-chairs Dr. Srinivas Murthi, Dr. Janice Tijssen, and Dr. Anab Lehr, all SickKids PCCM alumni.

Another special shout out to our trainee organizers – Dr. Dylan Ginter, PCCM Resident, and Dr. Liron Talmi and Dr. Terry Kong Kam Wa, PCCM Chief Fellows – who helped organize the day, moderate the event, and make sure our presentations were on time!

Presentations were judged by program faculty, as well as interprofessional Critical Care Medicine team members.

Showcase Award Winners

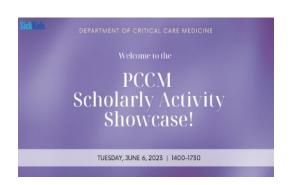
The Excellence Award – Dr. Luca Marchetto

"An exploratory study of P0.1 to predict SBT outcome and extubation readiness in children"

The Innovation Award – Dr. Liron Talmi

"Training in bronchoscopy simulation: Are scores perceived as feedback or judgement of performance?"

The Most Promising Scholarly Project Award – Dr. Oliver Venettacci "Paediatric Drowning, a Review of Autopsied Bathtub Drownings in Ontario"





Our timekeepers, Drs. Liron Talmi & Dylan Ginter



Some of our fellows after the day was done!

AWARDS

Resident & Fellow Awards

The John Edmonds Award – Dr. Oliver Venettacci
The Brian Kavanagh Award – Dr. Tanya Haj-Hassan
The Afrothite Kotsakis Award – Dr. Oliver Venettacci
Finalist – Oral Abstract Presenter – Dr. Constanza Velasco

Faculty Awards

Pediatric Critical Care Staff Teaching Award – Dr. Luciana Rodriguez-Guerineau

RESIDENT & FELLOW PUBLICATIONS

- 1. **Akinkugbe O**, James AL, Ostrow O, Everett T, Wolter NE, McKinnon NK. Vascular Complications in Children Following Button Battery Ingestions: A Systematic Review. Pediatrics. 2022 Sep;150(3).
- Group RC, RECOVERY Collaborative Group. Akinkugbe O (Collaborator). Baricitinib in patients admitted to hospital with COVID-19 (RECOVERY): a randomised, controlled, open-label, platform trial and updated metaanalysis. Lancet. 2022 Jul;400(10349):359-68.
- 3. Kousathanas A, Pairo-Castineira E, Rawlik K, Stuckey A, Odhams CA, Walker S, Russell CD, Malinauskas T, Wu Y, Millar J, Shen X, Elliott KS, Griffiths F, Oosthuyzen W, Morrice K, Keating S, Wang B, Rhodes D, Klaric L, Zechner M, Parkinson N, Siddiq A, Goddard P, Donovan S, Maslove D, Nichol A, Semple MG, Zainy T, Maleady-Crowe F, Todd L, Salehi S, Knight J, Elgar G, Chan G, Arumugam P, Patch C, Rendon A, Bentley D, Kingsley C, Kosmicki JA, Horowitz JE, Baras A, Abecasis GR, Ferreira MAR, Justice A, Mirshahi T, Oetjens M, Rader DJ, Ritchie MD, Verma A, Fowler TA, Shankar-Hari M, Summers C, Hinds C, Horby P, Ling L, McAuley D, Montgomery H, Openshaw PJM, Elliott P, Walsh T, Tenesa A, Fawkes A, Murphy L, Rowan K, Ponting CP, Vitart V, Wilson JF, Yang J, Bretherick AD, Scott RH, Hendry SC, Moutsianas L, Law A, Caulfield MJ, Baillie JK, Akinkugbe O (Collaborator). Whole-genome sequencing reveals host factors underlying critical COVID-19. Nature. 2022 Jul;607(7917):97-103.
- 4. Pereira M, **Akinkugbe O**, Buckley L, Gilfoyle E, Ibrahim S, McCradden M, Somerton S, Dryden-Palmer K. Up to the Challenge: Adapting Pediatric Intensive Care During a Global Pandemic. Front Pediatr. 2022 Jul;10:910018.
- 5. **Haj-Hassan TA**, Mtaweh H, Martinez D, Mema B. Lessons Learned on Bubble CPAP Implementation in Post-War Iraq. ATS Sch. 2022 Nov;3(4):625-30.
- 6. **Pisesky A**, Nield LE, Rosenthal J, Jaeggi ET, Hornberger LK. Comparison of Pre- and Postnatally Diagnosed Coronary Artery Fistulae: Echocardiographic Features and Clinical Outcomes. J Am Soc Echocardiogr. 2022 Dec;35(12):1322-35.
- 7. **Proulx C**, Min KK, Mema B. Being and Becoming: Narrative Records of Pediatric Critical Care Clinicians. Pediatr Crit Care Med. 2022 Oct;23(10):838-42.

2023:

- 1. **Akinkugbe O**, Saxena R, Ramnarayan P. Comparison of Specialist and Nonspecialist Transport Teams for Emergency Neurosurgery. Pediatr Emerg Care. 2023 Mar;39(3):173-8.
- RECOVERY Collaborative Group, Akinkugbe O (Collaborator). Higher dose corticosteroids in patients admitted to hospital with COVID-19 who are hypoxic but not requiring ventilatory support (RECOVERY): a randomised, controlled, open-label, platform trial. Lancet. 2023 May;401(10387):1499-507.

- 3. Pairo-Castineira E, Rawlik K, Bretherick AD, Qi T, Wu Y, Nassiri I, McConkey GA, Zechner M, Klaric L, Griffiths F, Oosthuyzen W, Kousathanas A, Richmond A, Millar J, Russell CD, Malinauskas T, Thwaites R, Morrice K, Keating S, Maslove D, Nichol A, Semple MG, Knight J, Shankar-Hari M, Summers C, Hinds C, Horby P, Ling L, McAuley D, Montgomery H, Openshaw PJM, Begg C, Walsh T, Tenesa A, Flores C, Riancho JA, Rojas-Martinez A, Lapunzina P, Yang J, Ponting CP, Wilson JF, Vitart V, Abedalthagafi M, Luchessi AD, Parra EJ, Cruz R, Carracedo A, Fawkes A, Murphy L, Rowan K, Pereira AC, Law A, Fairfax B, Hendry SC, Baillie JK, **Akinkugbe O (Collaborator).** GWAS and meta-analysis identifies 49 genetic variants underlying critical COVID-19. Nature. 2023 May;617(7962):764-8.
- 4. **Haj-Hassan T**, Mema B. The certainty of parental love vs. the uncertainty of a "best" decision. Intensive Care Med. 2023 Apr;49(4):483-4.
- O'Grady HK, Reid JC, Farley C, Hanna QEB, Unger J, Zorko DJ, Bosch J, Turkstra LS, Kho ME. Comparator Groups in ICU-Based Studies of Physical Rehabilitation: A Scoping Review of 125 Studies. Crit Care Explor. 2023 May;5(5):e0917.
- 6. Shemie SD, Wilson LC, Hornby L, Basmaji J, Baker AJ, Bensimon CM, Chandler JA, Chassé M, Dawson R, Dhanani S, Mooney OT, Sarti AJ, Simpson C, Teitelbaum J, Torrance S, Boyd JG, Brennan J, Brewster H, Carignan R, Dawe KJ, Doig CJ, Elliott-Pohl K, Gofton TE, Hartwick M, Healey A, Honarmand K, Hornby K, Isac G, Kanji A, Kawchuk J, Klowak JA, Kramer AH, Kromm J, LeBlanc AE, Lee-Ameduri K, Lee LA, Leeies M, Lewis A, Manara A, Matheson S, McKinnon NKA, Murphy N, Briard JN, Pope TM, Sekhon MS, Shanker JJS, Singh G, Singh J, Slessarev M, Soliman K, Sutherland S, Weiss MJ, Shaul RZ, Zuckier LS, **Zorko DJ**, Rochwerg B. A brain-based definition of death and criteria for its determination after arrest of circulation or neurologic function in Canada: a 2023 clinical practice guideline. Can J Anaesth. 2023 Apr;70(4):483-557.
- 7. **Zorko DJ**, McNally JD, Rochwerg B, Pinto N, O'Hearn K, Almazyad MA, Ames SG, Brooke P, Cayouette F, Chow C, Junior JC, Francoeur C, Heneghan JA, Kazzaz YM, Killien EY, Jayawarden SK, Lasso R, Lee LA, O'Mahony A, Perry MA, Rodríguez-Rubio M, Sandarage R, Smith HA, Welten A, Yee B, Choong K. Defining Pediatric Chronic Critical Illness: A Scoping Review. Pediatr Crit Care Med. 2023 Feb;24(2):e91-e103.
- 8. **Zorko DJ**, Shemie J, Hornby L, Singh G, Matheson S, Sandarage R, Wollny K, Kongkiattikul L, Dhanani S. Autoresuscitation after circulatory arrest: an updated systematic review. Can J Anaesth. 2023 Apr;70(4):699-712.

THANK YOU

A huge thank you to all of our Chief Fellow's for making the 2022-2023 academic year such a huge success:

- Dr. Liron Talmi (July 2022-June 2023)
- Dr. Luca Marchetto (July 2022-December 2022)
- Dr. Terry Kong Kam Wa (January 2023-present)

We'd also like to thank the staff physicians for all the guidance, knowledge, and support they provided our trainees.



Annual PCCM group photo

Congratulations to our graduating trainees! You will be missed, but we look forward to seeing what great things you do next. Wishing you all the best in your professional journey ahead.

CLINICAL RESEARCH: The PRACTICAL Platform Trial (Platform of Randomized Adaptive Clinical Trials in Critical Illness)

The COVID-19 pandemic provided an important learning opportunity regarding the value of establishing durable research infrastructure embedded into clinical practice to facilitate timely and efficient evaluations of new therapies. The pandemic also showed us what level of collaboration was possible through broad international collaborations and institutional commitments to accelerating research and discovery. Bayesian adaptive platform trials came to the forefront with the success of REMAP-CAP and RECOVERY, national and multinational collaborations that led to multiple high impact publications and facilitated advances in the management of moderate and severe COVID-19.

Platform trials are not an entirely new concept as several were operational prior the pandemic. Platforms offer several attractive features. They provide ongoing research infrastructure, making it much easier to get new clinical trials started once the platform is built and running. They enable the use of shared control groups and facilitate co-enrolment across trials, maximizing the contribution of each individual enrolled patient to the information in the trial. Platforms can leverage expertise and innovations shared across the platform network (i.e. physiological or biological measurement techniques) for multiple trials within the platform.

PRACTICAL (Platform of Randomized Adaptive Clinical Trials in Critical Illness) is an adaptive platform trial focused on testing innovative management strategies for patients with acute hypoxemic respiratory failure. The platform specializes in the evaluation of complex interventions such as mechanical ventilation and extracorporeal life support strategies. It currently hosts multiple phase II and phase III CIHR-funded trials and observational studies across the following domains:

- CORT-E-2 (corticosteroids for early and late AHRF) (L Del Sorbo, B Rochwerg);
- ESCAPE (focused on immunocompromised patients) (L Munshi, B Ferreyro, E Fan);
- IMV Strategies including DRIVE (driving pressure-limited ventilation) (E Goligher, S Sahetya, E Fan, N Ferguson), LANDMARK II (lung- and diaphragm-protective ventilation) (J Dianti, E Goligher), CAVIARDS (AOP and R/I based PEEP selection) (L Brochard, I Telias, L Chen);
- PROACTIVE (ECCO2R-facilitated waking and weaning in AHRF) (A Burrell, E Fan, N Ferguson), and
- **ULTIMATE** (ultra-protective ventilation facilitated by ECCO2R) (N Ferguson, E Fan).

These various domains and interventions highlight the potential of PRACTICAL platform to facilitate a spectrum of study designs, including multi-platform collaboration to accelerate enrolment (CAVIARDS, L Brochard) to facilitation of enrolment in multi-centre observational research (ESCAPE, L Munshi).

PRACTICAL incorporates a physiology-based precision medicine design to account for heterogeneity of treatment effect according to clinically relevant physiological states. Biobanking, waveform and ultrasound image banking infrastructure will facilitate secondary analyses to understand and predict treatment effect. The growing platform network includes sites in Canada, the United States, Argentina, Australia, New Zealand, Ireland, Italy, Saudi Arabia, Spain, and sites worldwide. Sites participating in the iCORE and INDEX registries will leverage registry-based data collection at their sites.

The PRACTICAL steering committee includes multiple IDCCM faculty and many accomplished clinical researchers from Canada and around the globe. It represents an effort to build on the IDCCM's strong tradition of international leadership in research in the field of acute respiratory failure.

Ewan Goligher, MD

Assistant Professor, University of Toronto

A 3-Year International Fellowship Journey: Navigating Challenges and Embracing Resilience

As an international fellow from Switzerland, driven by a passion for mechanical ventilation, I embarked with my wife and daughter on a remarkable 3-year journey to Toronto. It all began during a conference in Brussels in 2015, where I witnessed the incredible work produced by the IDCCM. Inspired and eager to learn more, I reached out to anyone I could find online, eventually securing a coffee date at the Starbucks in TGH. Little did I know that this would become the most expensive coffee of my life as it was accompanied by a trans-Atlantic flight. But I was determined to secure this fellowship. And after further connections and meetings during CCCF, I signed the deal for a fellowship position, thrilled to join the IDCCM program.



But fate had other plans in store. The global pandemic arrived, causing travel restrictions and bureaucratic delays. Determined to overcome these

obstacles, I contacted various members of Parliament and the Premier's office, ultimately obtaining my work permit in time. The journey continued.

And then... we arrived to a city in hibernation. Trapped in our apartment for a 2-week quarantine, and continuously tracked by immigration, we faced a series of challenges — no working phone, borrowed internet from neighbors, and declined credit cards. Quarantine became a test of resilience. However, we pushed forward, finding strength in each other's company (had a second kid) while adapting to the circumstances. The moment we finally stepped outside and explored our neighborhood remains etched in my memory.

The fellowship could begin! The clinical exposure was breathtaking, and working alongside people that I've admired was exhilarating. But as I was busy at Sunnybrook living the dream, my wife and daughter discovered this wonderful city that we were so eager to move to, but in complete lockdown. Virtual school replaced inperson learning, leading to comical scenes of my daughter doing gym class in our living room as my wife and I attended Zoom meetings. The pandemic-induced fear surrounding COVID-19 made social interactions difficult ("Hi, I work in the ICU. What do you do?"), with my daughter's playdates restricted due to apprehension. And when we had our son, all requests to get family into the country were denied. The isolation felt particularly acute. Undeterred, I persisted in reaching out to different staff members within the IDCCM, determined to make the most of this unparalleled opportunity and get into the research stream that I so badly wanted. As time progressed, Toronto gradually emerged from the depths of lockdown, breathing life back into the city. Social events progressively started as restaurants reopened, and as masks fell genuine smiles graced the faces of people that we had known for so long but yet had never seen.

As I prepare to conclude this transformative chapter and return home, I reflect on the resilience that carried us through the trials and triumphs of the past three years. This international fellowship experience has not been easy, and has shaped my professional growth and fortified my personal strength. I extend my heartfelt gratitude to all who made this journey unforgettable. The camaraderie, the laughter during rounds, the memorable midnight Indian buffets (thank you, Div), and some of those outrageous calls — these memories will forever hold a special place in my heart. A special thanks to the staff who covered for me during my wife's labor (twice!) while I was on call.

With great pride, I eagerly anticipate representing the IDCCM as a passionate ambassador, sharing the knowledge and experiences gained during this remarkable journey with the global medical community. Thank you all for an incredible experience.

Dr. Stephan von Düring

International Clinical & Research Fellow, IDCCM - IHPME University of Toronto



New Department of Medicine Associate Lead for Indigenous Learner Recruitment and Support from IDCCM

Dr. Cameron Landry, Métis physician and recent graduate of the Royal College Critical Care Medicine program and the Quality Improvement & Patient Safety

(QIPS) MSc from IHPME, has been appointed as the *Associate Lead for Indigenous Learner Recruitment and Support* in the Department of Medicine (DoM) for 2023-2024. This new strategic role has been developed in concordance with the Truth and Reconciliation Commission of Canada (TRC) calls to action and specifically aims to increase the number of Indigenous trainees (through iterative development, implementation, and quality improvement of the Indigenous Resident Application CaRMS pathway), as well as support cultural competency training and provide formal mentorship for Indigenous learners within the DoM through QI initiatives. Congratulations Dr. Landry!



Picture taken by Lucía Pérez (IDCCM international fellow)

The Canadian Critical Care Trials Group: reflections

The Canadian Critical Care Trials Group (commonly referred to as the CCCTG) was founded 34 years ago and has been a pioneer and exemplar of investigator-initiated clinical research collaboration in Canada. Modeled on the CCCTG's, many incredibly successful trials groups have evolved around the world and now partner with us in international studies and trials.

The CCCTG's success might be highlighted by having over 20 trials and studies in the New England Journal of Medicine, well over 400 peer-reviewed publication over 100 million dollars in peer-reviewed research grants. However, I think the most compelling accomplishment is the culture of mutual support, nurturing and inclusivity that defines the group. The CCCTG now has over 400 inter-professional members at pediatric and adult hospitals across Canada - patient partners, clinical & translational scientists, health care professionals, research coordinators and trainees.

Over the past 4 years, I have had the pleasure of serving as CCCTG Chair, and it has been one of the greatest honors of my career to work with such wonderful colleagues across the country. From the first days of the pandemic, the Canadian critical care community stepped up to lead. You enrolled the first patient with COVID admitted to a Canadian hospital into a pre-existing CCCTG study, provided international leadership for the paradigm-changing REMAP-CAP trial, pioneered a multi-platform clinical trial of anticoagulation in hospitalized patients with COVID, led the WHO's Solidarity Trial for Canada, completed the definitive trial on vitamin C in patients with either sepsis or COVID, tested innovations such as the use of volatile anesthetics, characterized the recovery and long-term outcomes of COVID-related critical illness, and, investigated how the pandemic impacted all of us working in the ICU. Members co-led the WHO's international clinical committee on COVID and provinces and regions looked to critical care to inform and lead our hospital responses to COVID. Accordingly, CIHR directed \$10M to CCCTG to establish the COVID-19 Network of COVID trials Networks.

In the background of the pandemic, CCCTG and IDCCM members have been busy initiating and completing so many non-COVID large studies and trials, generating new networks – in Sepsis, Infectious Diseases, Research Education, Brain Injury, Ventilation, Transplantation and Community Critical Care, among many others – and garnering international awards for their work.

The IDCCM has always played an outsized role in the CCCTG. With our academic depth and breadth, innovation, expertise, and size, the IDCCM undeniably now wears the critical care research leadership mantle & yoke for Canada and beyond. And, with that, we have both the privilege and responsibility to support subsequent generations. I'd like to thank you all for helping to make Canada such an accomplished and globally respected force in improving care for our sickest patients. It's been an honour to be part of that journey so far!



Robert Fowler, MDProfessor, Department of Medicine, University of Toronto



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"Somewhere, something incredible is waiting to be known."



Editor Dr. Laurent Brochard



Designed and prepared by Fahima Nasreen

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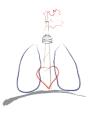








Interdepartmental Division of Critical Care Medicine



Thank you everyone. Stay safe and take care!