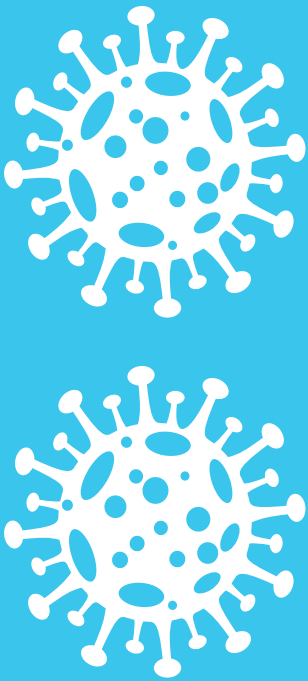


# ANNUAL REPORT

2020



**SREMI**  
SCHWARTZ/REISMAN  
EMERGENCY MEDICINE  
INSTITUTE

Mount Sinai Hospital  
North York General Hospital

MAN  
EMERGENCY  
CENTRE







 **VISION**

Patient centered, evidence based, excellent emergency care for everyone.

 **MISSION**

Lead and support a community of researchers and educators to improve ED care in Canada and abroad.

Conduct rigorous, patient centered research addressing important knowledge gaps in clinical care.

Foster a culture of teaching and learning through knowledge translation, education, and implementing best practices in emergency medicine.

Use the results of our work to advocate for hospital, and public policy approaches facilitating wide adoption of new knowledge.

To nurture and develop the discipline of emergency medicine.

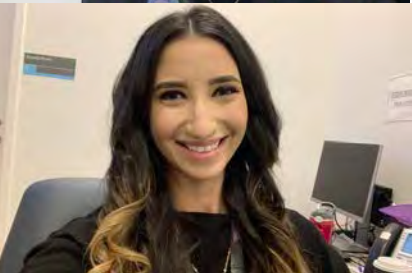
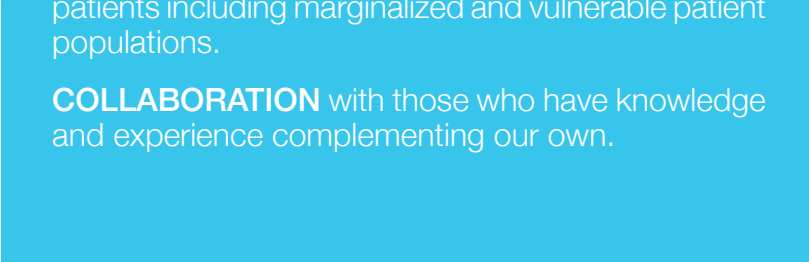
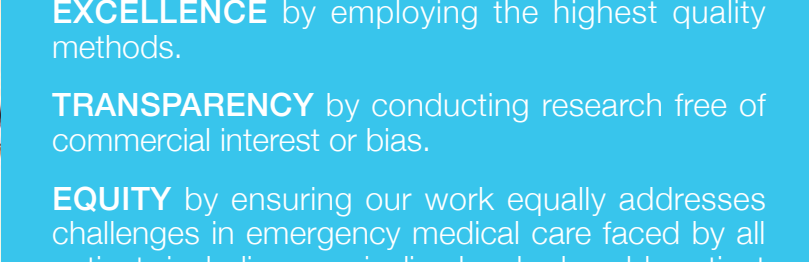
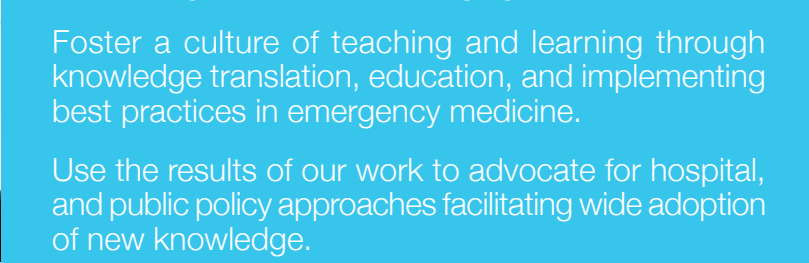
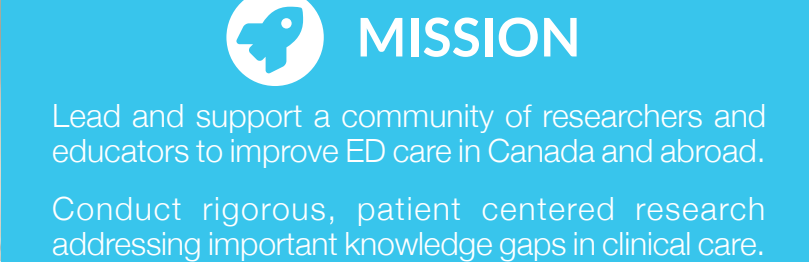
 **VALUES**

**EXCELLENCE** by employing the highest quality methods.

**TRANSPARENCY** by conducting research free of commercial interest or bias.

**EQUITY** by ensuring our work equally addresses challenges in emergency medical care faced by all patients including marginalized and vulnerable patient populations.

**COLLABORATION** with those who have knowledge and experience complementing our own.





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## Director

Bjug Borgundvaag, MD, PhD

## Research Director

Shelley McLeod, PhD, MSc, MSc,  
BSc (hons)

## Hospital Liaison Committee

Kevin Katz, MD, MSc  
Howard Ovens, MD

## ED Leads

Paul Hannam, MD (NYGH)  
David Dushenski, MD (MSH)

## Geriatric EM Research Chair

Jacques Lee, MD, MSc

## SREMI Faculty

Keerat Grewal, MD, MSc  
Anton Helman, MD  
Don Melady, MD, MSc  
Rohit Mohindra, MD, MASc  
Thom Ringer, MD, JD, MPhil  
Catherine Varner, MD, MSc

## SREMI Affiliated Scholars

Katie Dainty, PhD  
Monika Kastner, PhD  
Patricia Trbovich, PhD

## Research Coordinator

Cameron Thompson, MSc

## RBC-P2P Program Manager

Christine Bradshaw, MSW

## RBC-P2P Support Workers

Mahalia Dixon  
Yolanda Delmonte

## Geri-EM Fellows


Lorraine Lau, MD  
Rebecca Schonnop, MD

## Executive Assistant

Sylvia Lyons

## CONNECT

-  [www.sremi.ca](http://www.sremi.ca)
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# Welcome from the Director



At this time last year, I commented how exciting SREMI's first five years had been and how the next five years would be even more exciting. Little did I imagine just how "exciting" 2020 would be. As 2020 draws to a close, we find ourselves in the midst of a global pandemic which has caused more than one million deaths and turned the lives of everyone on our planet upside down. While it is easy to get caught up in the negativity of the year, I would like to take this opportunity to reflect on the incredible year SREMI has had, thank everyone for the amazing work they have done, and express my deepest gratitude for everything that went right.

SREMI's most important accomplishment of 2020 was that in spite of adversity, we thrived. Our staff remained engaged, busy and productive. In an environment which saw other research programs placed on hold, and some shutting down completely, SREMI scientists and educators had their busiest year ever with many accomplishments, including a record number of peer reviewed publications, and several SREMI scientists nominated for and winning local, national and international awards. This success is testament to their drive, the supportive environment provided by the SREMI team, and the importance of the work we are doing.

There are several key accomplishments that I would like to highlight here:

- Dr. Shelley McLeod completed her PhD thesis evaluating Ontario's new eCTAS program. Shelley has also played an important role on the BMJ Rapid Recommendations group analyzing and synthesizing new evidence related to COVID-19. This information becomes the basis for WHO recommendations which are adopted around the world.
- At North York General Hospital, Dr. Rohit Mohindra has made great progress developing his program of emergency medicine research, with 5 papers published and several new projects initiated.
- As planned, Dr. Thom Ringer completed his CCFP(EM) residency and joined SREMI as a Clinician Educator. Thom will take responsibility for our GERI-EM fellowship program and help grow other aspects of our Geri-EM program.
- Dr. Anton Helmen and EM Cases continue with the incredible success of the podcast. Early in the pandemic, Anton published a series of 8 podcasts within just a few weeks which were widely downloaded and received rave reviews.
- Dr. Don Melady and Dr. Jacques Lee both received promotion to Associate Professor, and Don was appointed as Chair of the Clinical Practice Committee at the International Federation of Emergency Medicine.

It has been a terrific year for SREMI, and I would like to thank our IAB members for their continued enthusiastic support and commitment to SREMI, and our IAB Chair Dr. Chris Carpenter for his leadership and engagement. I would also like to thank the Sinai Health and North York General Hospital leadership teams and foundations for their hard work and ongoing commitment to making SREMI a world leader in emergency medicine.

I am very grateful to Gerald Schwartz and Heather Reisman for their generous support and ongoing engagement with the SREMI team. Their commitment to a shared vision of academic excellence and leadership in emergency medicine is both unique and remarkable. Together we are improving the way ED patients are cared for today, and in the future.

A handwritten signature in black ink, appearing to be 'Bjug Borgundvaag', written in a cursive style.

Dr. Bjug Borgundvaag PhD MD CCFP(EM)  
Director, Schwartz/Reisman Emergency Medicine Institute



# COLLABORATION

# Chair's Report to the Board



Welcome to the 6th Annual Schwartz/Reisman Emergency Medicine Institute (SREMI) International Advisory Board (IAB) Meeting. History will remember 2020 as the year when a catastrophic viral pandemic cost humanity dearly, and a time when society relied upon medical science to generate evidence-based solutions at an unprecedented pace. As the front porch to the hospital, emergency medicine stood at the center of this population storm and stood tall during our generation's darkest hours, despite inadequate supplies of almost every resource required to combat COVID-19. The clinical researchers and educators at the foundation of SREMI provided a beacon of continued awe-inspiring scholarly productivity despite COVID-19. Director Dr. Bjug Borgundvaag and Research Director Dr. Shelley McLeod never lost focus on SREMI's mission, while adjusting to confront COVID-19 head-on. This report highlights a portion of SREMI's accomplishments and 2020 progress in the midst of historical challenges.

## NYGH AND SINAI HEALTH COLLABORATION – EDAC

Immediately following the IAB meeting in 2019, the annual two-day EDAC occurred again at the Toronto office of the Ontario Medical Association. The conference featured several

members of the IAB, exhibiting the intercontinental transdisciplinary leadership available to SREMI. The conference also included SREMI scholar Catherine Varner as part of a panel discussion reviewing early pregnancy care in the emergency department. This year, EDAC will be held virtually on November 24, with a focus on COVID-19 and the impact of technology to overcome the pandemic, rapid change agents, and maintaining healthcare team wellness while surviving an international tragedy.

## SREMI RESEARCH ACTIVITIES

SREMI has arrived as a hub of innovative international healthcare outcomes investigators. SREMI investigators were authors on three of the four CAEP 2020 plenary abstracts, and Dr. Catherine Varner received the CAEP Top New Investigator Award. Dr. Rebecca Schonnop received a CAEP Junior Investigator Award to evaluate the under-recognition of emergency department delirium.

Between November 2019 and October 2020, SREMI investigators published 56 manuscripts, including original research in prestigious journals like *The BMJ*, *Lancet*, *Age and Ageing*, *Journal of the American Geriatrics Society*, *Critical Care Medicine*, *Annals of Emergency Medicine*, and the *Canadian Medical Association Journal*. For perspective, the early career assistant professor academic emergency physician in the United States who publishes one manuscript per year is in the 95th percentile for productivity and the 99th percentile is 4.2 manuscripts per year. SREMI scholars remain impressively prolific over a broad range of topics including resuscitation, geriatrics, triage, and trauma, as well as emergency medicine's response to COVID-19.



## SREMI ACCELERATES KNOWLEDGE TRANSLATION

EM Cases (<https://emergencymedicinecases.com/>) was developed by Dr. Anton Helman of NYGH and is disseminated with SREMI support. EM Cases began as a podcast, with nearly 12 million podcast downloads since inception and episodes average more than 220,000 downloads per month. The website had approximately 2,300,000 podcast downloads thus far in 2020. In the early months of COVID-19, Dr. Helman created a series of apropos podcasts on SARS-CoV-2 pathophysiology, hospital surge capacity, healthcare provider wellness and personal protective equipment, and a dozen updates in later months as the science of COVID-19 evolved. I listen to dozens of emergency medicine, critical care, and geriatric podcasters as part of my approach to lifelong learning. Bar none, Dr. Helman's syntheses to his immense and continually expanding EM Cases audience is the best COVID-19 Free Open Access Meducation (FOAMed) resource available. Undoubtedly, his platform, network of experts and communication style saved both patient lives as well as healthcare teams and their families.

Similarly, Dr. Don Melady became the solution for the Geriatric Emergency Department Collaborative (GEDC, see <https://geriatric-ed.com/>) during the COVID-19 era. Whereas GEDC was built upon a foundation of in-person "Boot Camps" to provide external expertise and a structured approach to implementing older adult emergency medicine quality improvements across healthcare systems, travel and large gatherings became impossible this year. Consequently, Dr. Melady developed a series of monthly webinars ranging from emergency department approaches to COVID-19 diagnosis and management, to nursing home transitions and telehealth solutions (all archived on <https://gedcollaborative.com/events/past>).

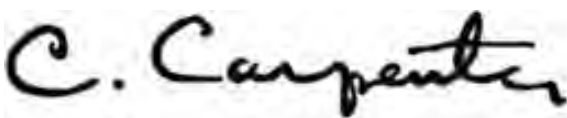
The education efforts of Drs. Helman and Melady speak to the full potential of SREMI. Writing grants and publishing papers in isolation will never be sufficient strategies to deliver optimal healthcare to patients in a reasonable timeframe.

## REFLECTIONS FROM THE CHAIR

This will serve as my final IAB Chair's perspective. In my academic career, I have witnessed the birth and demise of numerous ideas that appeared as disruptive innovations initially, but never attained momentum. Malcolm Gladwell noted *"the tipping point is that magic moment when an idea, trend, or social behavior crosses a threshold, tips, and spreads like wildfire."* SREMI is at the precipice of that tipping point. By demonstrating the capability to adapt on the fly as COVID-19 emerged, SREMI is a guidepost for emergency medicine researchers worldwide. Unanticipated challenges undoubtedly remain ahead for SREMI as the full economic and societal impact of COVID-19's scourge unfolds in coming years. Nonetheless, emergency medicine's research community would be wise to engage with SREMI to understand how one community's investment in emergency medicine research can reverberate globally. Personally, I have made that statement in meetings for different organizations in response to numerous challenges confronting clinical research – SREMI's mission and vision illuminates a path for all of emergency medicine from the pre-hospital setting through the emergency department to the intensive care unit or hospital floor and back home.

Worldwide, emergency medicine challenges accelerated unexpectedly, as did the opportunities to lead. As stated by Winston Churchill *"A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty"*. SREMI represents emergency medicine's eternal future and the IAB remains an indispensably engaged SREMI partner.

Respectfully submitted,



Christopher R. Carpenter, MD, MSc, FACEP, AGSF  
Chair, SREMI International Advisory Board  
Professor, Department of Emergency Medicine  
Washington University in St. Louis

# International Advisory Board

The IAB acts in an advisory capacity to the Director of SREMI to:

- Generally engage interdisciplinary thinking, stimulate dialogue, provide advice on shaping the research agenda and catalyse research, education, consulting, advocacy and public policy initiatives;
- Provide strategic advice on the activities and direction of the SREMI with the goal of making the SREMI the international leader in emergency medicine research and related teaching.

Service as an IAB member is voluntary. The Board reflects a diversity of interdisciplinary thinking and expertise in emergency medicine and related fields across the international health research community and society at large.



**Dr. Jim Christenson**

is an emergency physician at St. Paul's Hospital in Vancouver. He is a Professor and Head of the Academic Department of Emergency Medicine in the Faculty of Medicine at the University of British Columbia. He currently is a Co-Principal Investigator for the Canadian Resuscitation Outcomes Consortium, which aims to improve care through early interventions in cardiac arrest and trauma. He is also the Principal Investigator of a neuro-protective intervention given by paramedics to patients with severe stroke and Co-Principal Investigator for a multicenter trial evaluating a lower cut-point for Trononin in women. Dr. Christenson leads a team that organizes the BC Emergency Medicine Network to facilitate knowledge sharing and clinical support for all emergency practitioners in British Columbia. It is currently expanding to include nurses and is exploring how it can improve emergency care in remote indigenous communities.



**Dr. Matthew Cooke**

is UK Chief Clinical Officer for Capgemini, an international company focussing on digital business solutions. He recently retired as clinical advisor in emergency care to NHS Improvement SE region. He is a Professor of Clinical Systems Design at Warwick Medical School. He was previously an adviser to the World Health Organisation, was the National Clinical director for Emergency Care in England, and was the Director of Strategy/Deputy Medical Director at Heart of England NHS Foundation Trust. Dr. Cooke specialises in improving quality, safety and flow in urgent and emergency systems by innovation, systems redesign and by addressing attitudes, behaviours and culture. Dr. Cooke, now retired from emergency medicine, was in the Health Service Journal top 100 most influential clinical leaders in the NHS in 2013 and 2014 and has previously been in the Times top 100 UK doctors.



**Dr. Eva Grunfeld**

is a physician scientist and Director of the Knowledge Translation Research Network, Health Services Research Program at the Ontario Institute for Cancer Research. She is the Giblon Professor and Vice Chair (Research and Advocacy) in the Department of Family and Community Medicine and Professor at the Institute for Health Policy, Management and Evaluation at the University of Toronto. Dr. Grunfeld's research focuses on evaluation and knowledge translation of cancer health services, covering the entire spectrum of cancer control activities. She is internationally recognized for research on cancer survivorship. Recently, Dr. Grunfeld was appointed Chair of the Institute Advisory Board, Institute for Cancer Research, Canadian Institute for Health Research.



**Dr. Suzanne Mason**

qualified in medicine from London University in 1990. She pursued her training initially in surgery and then specialised in Emergency Medicine. Suzanne spent a year as a Royal College of Surgeons of England Research Fellow and joined Sheffield University as a Senior Clinical Lecturer in 2001 and was promoted to Reader in 2007 and Personal Chair in 2010. She divides her time between the university and as a consultant at the Barnsley Hospital Trust emergency department. Her main research interests include evaluating complex interventions in emergency and urgent care. She is particularly interested in the use of routine patient data to evaluate and model the Emergency and Urgent care System, identifying better ways to manage demand and improve outcomes in urgent and emergency care.



## Dr. Chris Carpenter

is Professor of Emergency Medicine at the Washington University School of Medicine in St. Louis, Missouri, United States. He serves as the Deputy Editor-in-Chief of Academic Emergency Medicine and Associate Editor for the Journal of the American Geriatrics Society. His transdisciplinary emergency medicine research focuses on diagnostic accuracy and efficiency, dementia risk assessment, and implementation science. He has co-authored 175 peer-reviewed manuscripts and two textbooks. He also served as the NIH representative for the Enhancing the QUALity and Transparency Of health Research (EQUATOR) Network Implementation Science reporting guidelines called the Standards for Reporting Implementation Studies (StaRI). He is a member of the Society of Academic Emergency Medicine Board of Directors, as well as the American College of Emergency Physician's Geriatric Emergency Department Accreditation Board of Governors and Clinical Policy Committee, and American Board of Emergency Medicine's MyEMCert editorial team. He also serves on the Clinician-Scientists Transdisciplinary Aging Research Leadership Core.



## Dr. John McLaughlin

is a Professor in the Dalla Lana School of Public Health at the University of Toronto, and Executive Director of the Canadian Partnership for Tomorrow's Health (CanPath), which is Canada's largest health study with over 300,000 participants being followed in a prospective cohort study. He recently retired as the inaugural Chief Science Officer at Public Health Ontario, and he has previously held several leadership roles across Ontario's research and health systems. As an epidemiologist, he leads research that integrates diverse disciplines in studies of environmental, biological and societal determinants of health, which has led to more than 300 publications. As a professor and health system executive, he steers research and services to have high impact by focusing on advancing disease prevention, addressing disparities and improving health system performance.



## Dr. Simon Mooijaart

is a physician in internal medicine, with a focus on geriatrics at the Leiden University Medical Center in the Netherlands. His research focuses on evidence-based medicine for older patients with the aim to improve the quality of healthcare for older patients. In 2011, Dr. Mooijaart founded the national Institute for Evidence-based Medicine in Old Age | IEMO ([www.iemo.nl](http://www.iemo.nl)), a collaboration of Dutch University Medical Centers, other knowledge institutions and industry. In 2012, Dr. Mooijaart initiated the Acutely Presenting Older Patient study ([www.apop.eu](http://www.apop.eu)), a prospectively collected cohort of over 2,700 older patients visiting the emergency department to identify patients at highest risk of poor outcomes and target interventions to improve outcomes.



## Dr. Michael Schull

is CEO and Senior Scientist at the Institute for Clinical Evaluative Sciences, Professor in the Department of Medicine at the University of Toronto, and a Senior Scientist at the Sunnybrook Research Institute. His research focuses on health service utilization, quality of care, health system integration and patient outcomes, and the evaluation of health policy. Under his leadership, ICES has expanded the types of data available for researchers, created a virtual platform where researchers outside ICES can access and analyze linked datasets, launched a health artificial intelligence data and analysis platform, and engaged the public in the work of ICES to ensure it remains aligned with public values. Dr. Schull leads the participation of ICES in a pan-Canadian initiative to build a national health and social data platform. He practices as an Emergency Medicine specialist at Sunnybrook Health Sciences Centre in Toronto.



## Dr. Lynn Wilson

is the Vice Dean, Clinical and Faculty Affairs and Associate Vice Provost, Relations with Health Care Institutions. She is a Professor of Family and Community Medicine at the University of Toronto. Dr. Wilson served as Chair of the Department of Family and Community Medicine (2007-2015). As a member of the Physician Services Committee for the Ontario Ministry of Health and Long-term Care, she helped to lead primary care renewal in Ontario (2002-2007). Dr. Wilson was the co-director of BRIDGES, an Ontario Ministry of Health funded project to support the design, implementation and assessment of innovative models of care that promote integration in the healthcare system (2011-2016). Dr. Wilson has practiced comprehensive family medicine for over 30 years. Her clinical interests have included substance use disorders, mental health, palliative care, primary care obstetrics, and care of the elderly.

# A Message From The Executive Liaison Committee



The year 2020 will be remembered primarily for the COVID-19 pandemic and its impact on all aspects of life. For SREMI, among so many other challenges, access to the hospital for research staff has been restricted, travel plans to present abstracts and meet with peers was cancelled, and of course, staff meetings have all gone virtual. But SREMI has adapted well, getting involved in pandemic related research, moving our annual International Advisory Board meeting online, and moving the ED Administration Conference (“EDAC”) to a virtual format. We are very excited about this year’s EDAC, which will be a half day in the afternoon of November 24th, the speakers will be live on Zoom and their discussion will be live streamed to registrants. We have speakers from the US and UK as well as Canada, who will discuss issues of relevance to ED leaders struggling with challenges in a crisis. We hope to reach a larger and broader audience using this approach and are interested to see how it will inform future meetings.

SREMI has also shown leadership in our discipline in multiple ways. EM Cases became a trusted source globally for up to the minute expert advice on emergency care for COVID-19 patients and infection control procedures, and multiple members of SREMI have acted in leadership roles on local, provincial and national town halls for both healthcare providers and the general public, and participating and leading podcasts, blogs, and international COVID-19 data synthesis informing the World Health Organization pandemic guidelines.

Like so many aspects of life including academic medical life, fundraising for causes other than the pandemic has largely been put on hold. However, we believe this existential experience is a stress test that among other things will show the relevance of SREMI’s mission and role, the wisdom in its structure, and strength of its team. Our Director, Dr. Bjug Borgundvaag wrote a rousing call to arms on the EM Cases blog site extolling this as the best time to be an emergency physician, highlighting our discipline’s “Coming of Age”. We also have faith that SREMI, and emergency medicine will indeed emerge from the pandemic stronger and more resilient. We are grateful for your ongoing support and wish everyone continued health as we all hope for better times in 2021.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Howard Ovens".

Howard Ovens MS, FCFP (EM)  
Mount Sinai Hospital

A handwritten signature in black ink, appearing to read "Kevin Katz".

Kevin Katz MD, CM, MSc, FRCPC  
North York General Hospital





THIS SCRUB SUIT  
IS THE PROPERTY OF  
MOUNT SINAI HOSPITAL

# RESEARCH

# Research Report



Back in March, when the World Health Organization declared COVID-19 a global pandemic, I remember gathering our SREMI staff and faculty and announcing that as a precautionary safety measure, we would be asking everyone to work from home for the next two weeks. Weeks turned into months, and we all had to figure out how to remain engaged, motivated and connected. Zoom became the newest and most important member of our team. In the face of unprecedented challenges, SREMI researchers and scholars had the most productive and prolific year to date. To say that I am proud of our team would be a massive understatement.

## RESEARCH IMPACT

SREMI scientists are among the top academic producers in the country and are increasingly being recognised as leaders in our discipline. Since November 2019, SREMI investigators have won eight research awards, acknowledging the important contributions we are making towards the advancement of emergency medicine. One of our Geri-EM fellows, Dr. Rebecca Schonnop, was awarded a CAEP Junior Investigator Grant to explore healthcare provider opinions and perceptions regarding factors that contribute to missed delirium in older emergency department patients. Dr. Keerat Grewal won a CanVECTOR research award for her work on the risk of venous thromboembolism (blood clots) in patients with an ankle fracture requiring immobilization. SREMI investigators were authors on three of the four CAEP 2020 plenary abstracts, and our eCTAS research team was selected as a finalist for the Grizzly Den Award.

Most impressively, Dr. Catherine Varner received the CAEP New Investigator Award and expertly presented her work virtually at the CAEP National Ground Rounds showcasing the best in Canadian emergency medicine research. She was also a finalist for the SAEM Young Investigator Award for her research comparing prescribed light exercise to standard management for emergency department patients with acute mild traumatic brain injury. Finally, SREMI scholars published a mind-blowing 56 peer-reviewed manuscripts in high-impact journals, with another 21 manuscripts currently under review.



## THE COVID PIVOT

Although COVID has presented challenges for some of our ongoing studies collecting data in the emergency department, it has also provided an opportunity to collaborate with new research networks locally, nationally and internationally. Dr. Bjug Borgundvaag and I are co-investigators on a



blinded, randomized controlled trial to determine if pre-exposure prophylaxis reduces COVID-19 among health care workers in the emergency department. We are working with Ontario scientists on a longitudinal study that will link serological, genomic and patient characteristics to provide a comprehensive understanding of factors that contribute to variability in symptoms and outcomes among COVID-19 patients. We also partnered with experts in artificial intelligence to develop a model to predict future oxygen requirement in COVID-19 patients based on chest X-ray findings and data available at the time of ED presentation or admission to hospital.

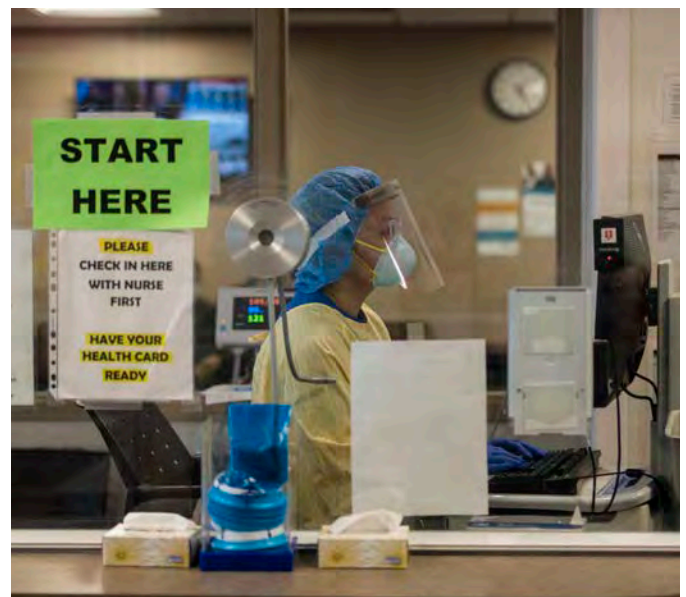
Additionally, NYGH is collecting data for the Canadian COVID-19 Emergency Department Registry Network, and Dr. Rohit Mohindra is working with SREMI affiliated scholar Dr. Katie Dainty on a qualitative project to explore patients' perspective on high risk COVID-19 follow-up clinics. Dr. Jacques Lee has proposed a randomized trial that would use specially trained, older, hospital volunteers to provide peer support to combat isolation and loneliness in isolated older people. Finally, in collaboration with the World Health Organization and The British Medical Journal, I am working with a group of international methodologists and clinicians to conduct a living network meta-analysis for the management of COVID-19 that informs international clinical practice guidelines. The international attention this work has garnered is astonishing, as evidenced by the altmetric from our first publication (<https://www.bmj.com/content/370/bmj.m2980>) which is currently 3105.

The success of this past year is a direct reflection of the hard work, perseverance, and resiliency of our SREMI team. I would like to thank our Director, Dr. Borgundvaag for his leadership through these extraordinary times, the SREMI research faculty, and our research coordinator Cameron Thompson for his incredible efforts. I would also like to thank our generous benefactors, Gerald Schwartz and Heather Reisman, for their ongoing patronage and support.

Respectfully submitted,



Shelley McLeod, PhD, MSc, MSc, BSc (hons)  
Research Director, SREMI



# Academic Achievements & Awards

Ontario Medical Association Life Membership Award: [Dr. Howard Ovens](#)

CAEP 2020 Research Plenary: The Best of Canadian EM Research. Grant Innes Research Paper and Presentation Award (Plenary 1). Stiehl I, Perry J, Clement C, Sibley S, McRae A, Rowe B, [Borgundvaag B](#), [McLeod SL](#), Mielniczuk L, Dreyer J, Yan J, Brown E, Brinkhurst J, Nemnom M, Taljaard M. Creation of a risk scoring system for emergency department patients with acute heart failure

CAEP 2020 Research Plenary: The Best of Canadian EM Research (Plenary 2). Cheskes S, Dorian P, Feldman M, [McLeod SL](#), Scales DC, Pinto R, Turner L, Morrison LJ, Drennan IR, Verbeek PR. DOuble Sequential External Defibrillation for Refractory Ventricular Fibrillation: The DOSE VF pilot randomized controlled trial.

CAEP 2020 Research Plenary: The Best of Canadian EM Research (Plenary 4). Top New Investigator Abstract Award. [Varner C](#), [Thompson C](#), de Wit K, [Borgundvaag B](#), Houston R, [McLeod SL](#). A randomized controlled trial comparing prescribed light exercise to standard management for emergency department patients with acute mild traumatic brain injury.

Canadian Association of Emergency Physicians Junior Investigator Grant: [Dr. Rebecca Schonnop](#)

Canadian Venous Thromboembolism Research Network (CanVECTOR) Research Start-Up Award: [Dr. Keerat Grewal](#)

Thrombosis Canada and CanVECTOR 3-minute Project Competition Winner: [Dr. Keerat Grewal](#)

Canadian Association of Emergency Physicians Grizzly Den, Finalist. [McLeod SL](#), [Grewal K](#), [Ovens H](#), [Borgundvaag B](#)

Society of Academic Emergency Medicine Early Investigator Award, Finalist: [Dr. Catherine Varner](#)

2020 Saul and Esther Baker Award: [Dr. Rebecca Schonnop](#)

CAEP / Women in Emergency Medicine Recognition of Local Heroes During COVID-19: [Dr. Catherine Varner](#)

Doctor of Philosophy, Department of Health Research Methods, Evidence and Impact (formerly the Department of Clinical Epidemiology and Biostatistics), Faculty of Health Sciences, McMaster University: [Dr. Shelley McLeod](#)

Promotion to Associate Professor, Department of Medicine, University of Toronto: [Dr. Jacques Lee](#)

Promotion to Associate Professor, Department of Medicine, University of Toronto: [Dr. Don Melady](#)

New faculty appointment as Assistant Professor, Department of Medicine, University of Toronto: [Dr. Keerat Grewal](#)

New faculty appointment as Lecturer, Department of Medicine, University of Toronto: [Dr. Rohit Mohindra](#)

International Federation of Emergency Medicine, appointed Chair of the Clinical Practice Committee: [Dr. Don Melady](#)

Network of Canadian Emergency Researchers (NCER) executive committee: [Dr. Keerat Grewal](#) and [Dr. Catherine Varner](#)

Certificate of Added Competence in Care of the Elderly, College of Family Physicians of Canada: [Dr. Don Melady](#)

Certificate, Health Impact Journalism, Dalla Lana School of Public Health, University of Toronto: [Dr. Catherine Varner](#)

## Top New Investigator Award, 4<sup>th</sup> Plenary Presentation



### Dr. Catherine Varner

PL04 - A randomized controlled trial comparing prescribed light exercise to standard management for emergency department patients with acute mild





# SREMI by the Numbers



## GRANTS

PEER-REVIEWED  
(Nov 2019 - Oct 2020)

**\$10.5**  
thousand

Primary Investigator

**\$5.9**  
million

Co-Investigator



Research abstracts presented at  
**National Meetings**



Research abstracts presented at  
**International Meetings**



Research  
Excellence  
Awards



On-going  
projects  
collecting data



Peer-Reviewed  
Journal Publications  
(Nov 2019 - Oct 2020)



Manuscripts  
Currently under review  
(Nov 2019 - Oct 2020)



## MENTORED

- 2** Peer Support Workers
- 1** Faculty Member

- 4** Medical Students
- 3** Residents
- 2** Geri-EM Fellows

# SREMI Team



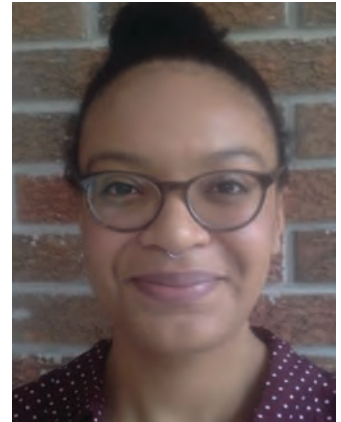
**Dr. Bjug Borgundvaag**  
Director



**Christine Bradshaw**  
Project Manager



**Yolanda Delmonte**  
Peer Support Worker



**Mahalia Dixon**  
Peer Support Worker



**Dr. Dave Dushenski**  
Faculty



**Dr. Keerat Grewal**  
Faculty



**Dr. Paul Hannam**  
Faculty



**Dr. Anton Helman**  
Faculty



**Dr. Kevin Katz**  
Executive Liaison Committee



**Dr. Lorraine Lau**  
Geri-EM Fellow



**Dr. Jacque Lee**  
Faculty



**Sylvia Lyons**  
Executive Assistant



**Dr. Don Melady**  
Faculty



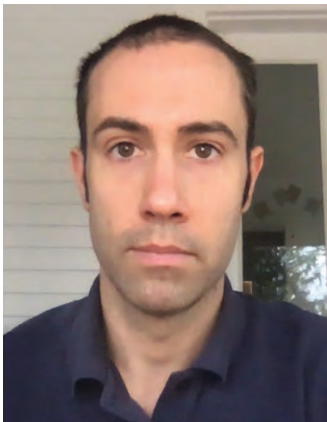
**Dr. Shelley McLeod**  
Research Director



**Dr. Rohit Mohindra**  
Faculty



**Dr. Howard Ovens**  
Executive Liaison Committee



**Dr. Thom Ringer**  
Faculty



**Dr. Rebecca Schonop**  
Geri-EM Fellow



**Cameron Thompson**  
Research Coordinator



**Dr. Catherine Varner**  
Faculty



**Gillian Wilde-Friel**  
Faculty



# SREMI Research Chair



**DR. JACQUES LEE**

The SREMI Inaugural Research Chair in Geriatric Emergency Medicine Dr. Jacques Lee has continued to transition his existing geriatric-EM research program while maintaining forward momentum.

**E**mergency **D**epartment **U**se of **R**egional **A**nesthesia to **P**revent **I**ncident **D**elirium (EDU-RAPID)

Multiple systematic reviews have established that traditional narcotics provide sub-optimal analgesia for patients suffering a hip fracture. Regional anesthesia, also known as a nerve-block, provides more effective and faster pain relief, and is safer especially when guided by point-of-care ultrasound (POCUS).

Dr. Lee previously established that less than 5% of emergency physicians routinely performed nerve blocks for patients with a hip fracture. Over the past few years, Dr. Lee has been leading a national, CIHR-funded, multi-centred randomized clinical trial aimed to reduce delirium in older adults suffering from a hip fracture. The goal of the EDU-RAPID trial was to determine if teaching and encouraging emergency physicians to perform ultrasound guided hip nerve blocks could reduce delirium by improving pain without the need for sedating narcotics.

Over 200 emergency physicians have been successfully trained in the hip-block procedure and have completed over 840 nerve blocks for older patients presenting to the emergency department with a hip fracture. However, training a large cohort of emergency physicians has extended the impact of the research beyond the 840 trial participants. Improbably, one of the study's own co-investigators, who was too young to participate in the trial, suffered a hip fracture in a cycling accident in November 2019. His significant pain was rapidly relieved after receiving a nerve-block from a 4th year resident who was trained and supervised by an EDU-RAPID trained physician.





## SOCIAL ISOLATION AND LONELINESS

Social isolation and loneliness worsen older peoples' quality of life, risk of dementia, and contributes to 45,000 deaths per year in Canada - as much as smoking. Of course with COVID-19, social isolation and loneliness has dramatically increased. In response, Dr. Lee pivoted his research program to address this challenging issue. He collaborated with the Dr. Judy Lowthian, an Australian developer of a telephone support program (HOW RU) shown to reduce social isolation and loneliness, and together with a team of scientists and clinicians have submitted multiple funding applications to support this important project. The goal of the study is to explore how older Canadians prefer to receive virtual support and determine if telephone and video delivery of care can reduce social isolation and loneliness.

## URINE METABOLOMICS

In February 2020, Dr. Lee's team established the feasibility of comparing urine metabolites collected from older people with hip fractures in the ED with their post-operative metabolite profile. The resulting pilot data has demonstrated a potentially novel pathophysiologic mechanism and a biomarker profile to better understand and identify delirium. This work, while preliminary, has great potential to improve the prediction, prevention, recognition and treatment of delirium in older patients.

Dr. Lee continues to mentor multiple medical students, residents and junior faculty and authored 7 peer-reviewed publications with multiple abstracts accepted at both CAEP and SAEM annual conferences. His h-index has increased from 15 to 26 since joining SREMI.

# SREMI Clinician Scientist



**DR. CATHERINE VARNER**

A national leader in emergency department pregnancy care, Dr. Catherine Varner produces impactful research, educates frontline nurses and doctors, and advocates for more maternal health research in Canada.

In just five years, Dr. Varner has built a successful early pregnancy research program with clinical researchers, dedicated patients with lived experience, and clinician experts. With the program's delivery of impactful research studies, Dr. Varner has become a nationally regarded expert in emergency department pregnancy care and is a recognized leader in policy, education and advocacy for maternal health in Canada.

Canadian emergency departments frequently care for pregnant patients. Dr. Varner's recent health services study revealed that between 2002-2017 nearly one in three pregnant women in Ontario sought treatment in the emergency department during or shortly after their pregnancy. In addition, four in five women experiencing early pregnancy loss, also known as miscarriage, are cared for in emergency departments. These findings suggest Canadian women do not have urgent access to obstetrical care when early pregnancy complications are most likely to occur, and emergency departments may be the only option for patients experiencing symptoms such as bleeding or pain.

Thus, the onus is on Canadian emergency departments, especially the emergency department of Mount Sinai Hospital, an international leader in women and infant's health, to develop the best models of care for this most frequent complication of pregnancy. To accomplish this goal, Dr. Varner and her collaborators at North York General Hospital are leading educational training sessions for both hospitals' emergency and obstetrical providers. Dr. Varner also teaches emergency care providers at national continuing medical education courses.





Dr. Varner now leads the charge advocating for more research funding for early pregnancy complications. Pregnancy research tends to focus on pregnancies that end in live





# CAEP RESEARCH PLENARY THE BEST IN CANADIAN EM RESEARCH: THE TOP 4 ABSTRACTS

WEDNESDAY, OCTOBER 21  
7:00 PM ET | 4:00 PM PT

<b>DOuble Sequential External Defibrillation for Refractory Ventricular Fibrillation: The DOSE VF pilot randomized controlled trial</b> <b>DR. SHELDON CHESKES</b>			<b>A Cluster-Randomized Trial to Increase Rapid Use of Cardioversion for Acute Atrial Fibrillation and Flutter</b> <b>DR. IAN STIELL</b>
	<b>Thromboembolic events following cardioversion for acute atrial fibrillation and flutter: a systematic review and meta-analysis</b> <b>MR. BRENTON WONG</b>	<b>A randomized controlled trial comparing prescribed light exercise to standard management for emergency department patients with acute mild traumatic brain injury</b> <b>DR. CATHERINE VARNER</b>	

births; however, this overlooks pregnancy loss, which can have serious physical and mental health consequences. She and collaborators at the University of Manitoba, University of Calgary and University of Toronto have submitted several proposals to the Canadian Institutes of Health Research to describe the relationship between pre-pregnancy health and pregnancy outcomes, predict potentially fatal ectopic pregnancies and prevent the long-term complications arising from early pregnancy loss.

For her impactful research studies, Dr. Varner was awarded the Canadian Association of Emergency Physicians Top New Investigator Award in 2020. In addition, three of her research abstracts are currently under adjudication for the Society of Academic Emergency Medicine's Young Investigator Award, North America's largest academic emergency medicine association. Over the past year, Dr. Varner completed a Certificate in Health Impact Journalism at University of Toronto's Dalla Lana School of Public Health. Now a recognized health journalist, she writes news stories for The Conversation, the Canadian Medical Association Journal, and Healthy Debate.



October 21, 2020 - Grand Rounds

### Competing Interests

- No conflicts of interest to disclose
- Funding for this trial was provided by:

Logos for funding partners: wsib ONTARIO, CAEP | ACMU (Canadian Association of Emergency Physicians / Association canadienne des médecins d'urgence), SREMI, Mount Sinai Hospital, NCEM, Networks of Canadian Emergency Researchers, ReCRU, Réseau Canadien de Recherche en Urgence.

Send questions  
text: 438-862-0026  
tweet #CAEPgrandrounds

# SREMI Clinician Scientist



**DR. KEERAT GREWAL**

SREMI scientist and emergency physician, Dr. Keerat Grewal continues to develop a health services research program focusing on patients with cancer and issues surrounding venous thromboembolism and anticoagulation in the emergency department. This past year, Dr. Grewal successfully completed her research fellowship and has obtained academic appointments as a SREMI scientist, an Assistant Professor with the Department of Medicine at the University of Toronto, and an Adjunct Scientist with ICES. Dr. Grewal was also appointed to the executive committee for the Network of Canadian Emergency Researchers (NCER). This leadership opportunity has allowed Dr. Grewal to expand her collaboration network with emergency medicine researchers across Canada.

Dr. Grewal continues to build on research focusing on patients with cancer in the emergency department. She recently published an article in *CMAJ Open*, which identified that patients with cancer undergoing treatment frequently require care in the emergency department, and that 1 in 4 emergency department visits in this population are for infection-related diagnoses. She also found there was a higher rate of hospital admission of cancer patients compared to the general Ontario population. These findings will be instrumental in laying the foundation for future work and grant submissions.

Dr. Grewal has developed several collaborations, including one with emergency physician and thrombosis researcher Dr. Kerstin de Wit. Two studies that Drs. Grewal and de Wit are collaborating on will examine the risk of venous thromboembolism (blood clot) in patients discharged from the emergency department. One of these projects, supported by a CanVECTOR Research Start-Up Award, examines patients with an ankle fracture requiring immobilization in the emergency department. Ankle fracture and their respective treatment can increase the risk of developing a blood clot. In Canada, we do not actively prevent blood clots in people with broken ankles, partly because we believe they are rare, and we cannot tell who is at higher risk for developing a blood clot. The preliminary results of this study suggest that venous thromboembolism in these patients is an issue that needs to be recognized at the time of emergency department discharge. Dr. Grewal virtually presented findings from this project at the Thrombosis Canada and CanVECTOR conference, where she won the 3-minute Project Competition for outstanding research.



**inVECTOR Presents: 3-Minute Project Competition**  
**CanVECTOR Network**

### Venous thromboembolism in patients discharged from the emergency department with an ankle fracture

Keerat Grewal

**She went in for a broken ankle and died. Jury finds Miami doctors liable for millions.**

**Cupar, Sask., man dies of blood clot days after breaking foot**

A Bethlehem artist died from a broken bone that led to a blood clot. Here's what you should know about the risk.

**86,081 patients with ankle fracture**  
1,117 (1.3%) VTE within 90 days

Factors associated with VTE

	Adjusted HR (95% CI)
Age > 65	1.18 (1.00-1.39)
Hospital admission*	1.33 (1.05-1.68)
Surgery*	1.58 (1.30-1.93)
Surgery for fracture*	1.80 (1.48-2.20)
Hx of VTE	5.18 (4.33-6.20)

\*interacting covariates

VTE hazard in matched patients with a finger wound  
**6.31 (5.30-7.52)**

**Eric Tseng**  
@tsengeric

Just catching up on the @canvector 3-min project competition now. Great work from @kee\_gre on risk of VTE after patients discharged from ED with ankle fracture with immobilization

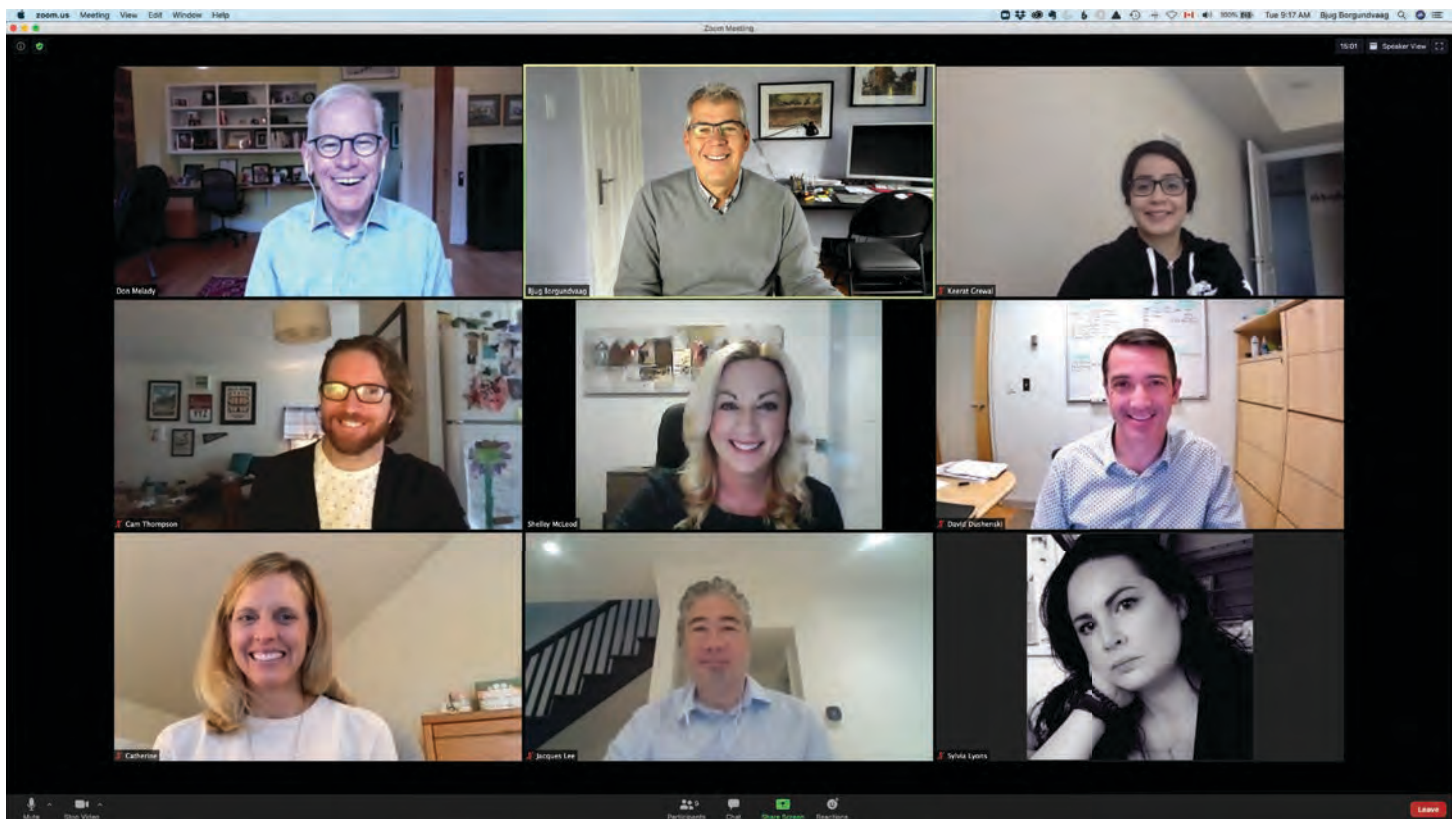
Beware of those with prior VTE history!

10:51 PM · Oct 21, 2020 · Twitter Web App

3 Quote Tweets 8 Likes

Tweet your reply

Dr. Grewal is also working on the iBLEED-ED study, a study examining the risk of intracranial hemorrhage in older patients seen in the emergency department with a head injury and comparing these risks by anticoagulation status. She continues to mentor junior residents, is supervising multiple resident research projects and has published six peer-reviewed manuscripts this year. Her ICES appointment will guarantee streamlined access to ICES data and allow her to accelerate her health services research program, using population-level data to identify gaps in emergency medicine care and propose ways to improve care in emergency departments across Ontario.



# NYGH Research Lead



**DR. ROHIT MOHINDRA**

Dr. Rohit Mohindra joined the SREMI team in September 2019 as the Research Lead for North York General's emergency department. He came via McGill University, where he trained in emergency medicine, completed a critical care research training program, and worked clinically for three years. He also has a background in biomedical engineering and translational science research.

Dr. Mohindra's goals for the first year were to gather data on existing research infrastructure and available resources and engage with research champions and stakeholders at NYGH. He also wanted to better understand the types of populations served by the ED, determine the current state of existing ED research, and develop a plan to expand the research productivity of the department.

As part of this process, Dr. Mohindra identified that using e-communication tools would be a cost-effective and resource efficient way to reach out to patients who might be interested in participating in research studies. However, he found there was minimal knowledge regarding what information patients are comfortable sharing by e-communication. To better understand this, he developed a multi-center survey that is in



# HOUSECALLS

a virtual conversation with our community

**Wednesday, September 16<sup>th</sup> | 7:00 p.m. to 8:00 p.m.**

Mental health issues in a COVID-19 world are looming large. Join our virtual panel and learn practical ways to support yourself and your loved ones through this uncertain time.

**Dr. Stephanie Klein**  
Family Physician,  
North York  
General Hospital

**Dr. Rohit Mohindra**  
Emergency Physician,  
North York  
General Hospital

**Nicole German**  
Chair of the Board,  
North York General  
Foundation

**Register today at**  
[NYGHFoundation.ca/HouseCalls](https://NYGHFoundation.ca/HouseCalls)

**NORTH YORK  
GENERAL  
FOUNDATION**



the initial phases of data collection at NYGH and is undergoing ethics review at two other sites.

The COVID-19 pandemic quickly shifted these priorities, and although the privacy study had to be put on hold, many new exciting projects are now underway. Dr. Mohindra has been successful in obtaining local (NYGH exploration fund), provincial (Ontario Ministry of Colleges and Universities Rapid Response COVID-19 grant) and national (CIHR COVID-19 grant) funding for COVID-19 related research for the ED. For example, as part of the institution’s early response to the pandemic, a high risk COVID-19 follow-up clinic was started. In collaboration with NYGH hospital research chair for Patient Centered Outcomes (Dr. Katie Dainty), he is exploring the patient’s perspective on these follow-up clinics and trying to determine if patient’s needs are being

met. Additionally, NYGH is now collecting data for the Canadian COVID-19 Emergency Department Registry Network, and is the only community hospital in Ontario participating so far. Dr. Mohindra has published 5 peer reviewed publications in the last year, 3 of which he was first author. One of these manuscripts detailed the creation of an enhanced COVID-19 protected assessment zone in response to the pandemic.

Moving forward, the goal will be to further solidify research capacity and expand the ability to design and implement new research studies that will benefit the populations served at North York. This will require securing office space and infrastructure, hiring full time research personnel, and developing funding plans to support protected research time. Dr. Mohindra looks forward to expanding the ability to collaborate with our partners at Sinai Health and enhancing the quality of research for both organizations.



# EDUCATION

# Geriatric Emergency Medicine

DR. DON MELADY



Geriatric emergency medicine activities continue to be a strong part of SREMI. Dr. Don Melady leads local, national and international projects related to education, knowledge translation, quality improvement and leadership. He also works closely with Dr. Jacques Lee and Dr. Shelley McLeod on multiple research projects pertaining to geriatric emergency medicine (EM).

The SREMI clinical fellowship in Geriatric EM, the only one of its kind in Canada, welcomed two fellows this year. One graduate, Dr. Rebecca Schonnop, will now be leading Geriatric EM programmes at the Royal Alexandra Hospital in Edmonton; the other, Dr. Lorraine Lau, will be doing the same in Montreal. Of note, Dr. Schonnop won a 2020 CAEP junior investigator grant for her qualitative research project on why we miss delirium in the ED and also won a 2020 Saul and Esther Baker Award in recognition of her excellent and outstanding contributions in the care of older patients. There are now SREMI fellowship graduates in leadership roles in six provinces across the country. Our first fellow, Dr. Audrey-Anne Brousseau, has led care transformation at the Université de Sherbrooke which has become the first accredited Geriatric ED in Canada. We are



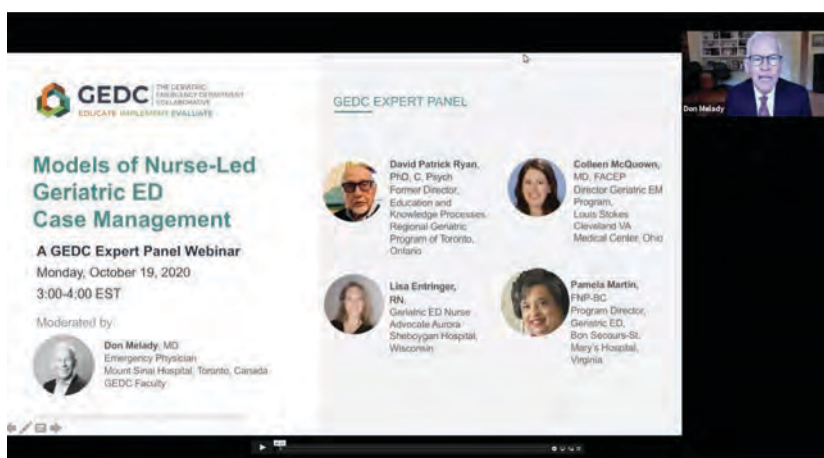
awaiting our first international fellow, Dr. Ranjeev Kumar from Singapore, whose arrival has been delayed by ten months due to the global COVID-19 pandemic. The fellowship's reputation is now attracting EM residents as electives from across the country, this year we have five residents completing electives with us. Additionally, we are very pleased to announce that Dr. Thom Ringer has joined the SREMI team to collaborate with Dr. Melady in further developing our Geri EM offerings.

Dr. Melady continues his national projects, as co-chair of the CAEP Geri EM committee which is producing a policy statement for CAEP on care of older patients in Canadian EDs. Outside of Canada, he works with the American Geriatric ED Collaborative where he led the creation of its website; a series of international webinars (with monthly attendance of around 200); and system interventions at UCSD, San Francisco hospitals,



the Mayo Clinic, and the Veterans Administration. Many international teaching activities (Costa Rica, Chile, Turkey, Argentina) were curtailed this year because of COVID; but he presented virtually at the annual conferences for the European Society of Emergency Medicine and American College of Emergency Physicians. After four years as the chair of the Geriatric EM Committee at the International Federation of Emergency Medicine, he has been appointed the chair of its Clinical Practice Committee, responsible for coordinating educational material and projects across all areas of practice, including geriatric care, to support EM systems around the world. With an American co-author, Dr. Melady has a contract with Cambridge University Press to write a book: *Creating a Geriatric ED, the practical guide*. It is scheduled for publication in August 2021.

*Dr. Melady would like to thank Ms. Penny Rubinoff and Bill and Cathy Graham for their generous support towards the Geriatric Emergency Medicine Program at SREMI.*



# EM Cases

## DR. ANTON HELMAN

Emergency Medicine (EM) Cases is a free, online, medical education podcast, medical blog and website dedicated to providing emergency medicine education and continuing medical education for physicians, residents, students, nurses and paramedics. In each **Main Episode Podcast**, two or more experts in a particular emergency medicine topic join Dr. Anton Helman in a round-table, case-based, discussion on key practice changing clinical topics, which are then carefully edited to maximize learning. In each recently launched **EM Quick Hits podcast**, 5 or 6 focused topics are chosen with 5 minutes dedicated to each topic presented by different experts. These topics are ones that either are not taught very well in training and/or that physicians tend to be not completely comfortable with. We also feature a Quick Hit segment in collaboration with the Canadian Journal of Emergency Medicine (CJEM). In each **Journal Jam podcast**, we bring together leading EM researchers, educators and clinicians from around the world to discuss practice-changing EM articles or deep dives into the world's literature on a particular controversial topic.



2020 has been a tremendously successful year for EM Cases with a growing content team of 25 emergency physicians and residents. EM Cases is Canada's most listened to emergency medicine podcast with thousands of subscribers, well over 11 million podcast downloads since 2010, with approximately 2,300,000 podcast downloads thus far in 2020.

On the EM Cases website, page views have surpassed 150,000 per month with over 1 million sessions in the past year. The number of users of the website has increased more than 100% over the past 2 years. The website includes 3 categories of videos: **Rapid Review videos**, **POCUS Cases videos**, **Emergency Medicine Update Conference videos**. **ECG Cases blog** is a new project launched in September 2019, in which each post features a number of ECGs related to a particular theme or diagnosis (with a focus on acute coronary occlusion), so learners



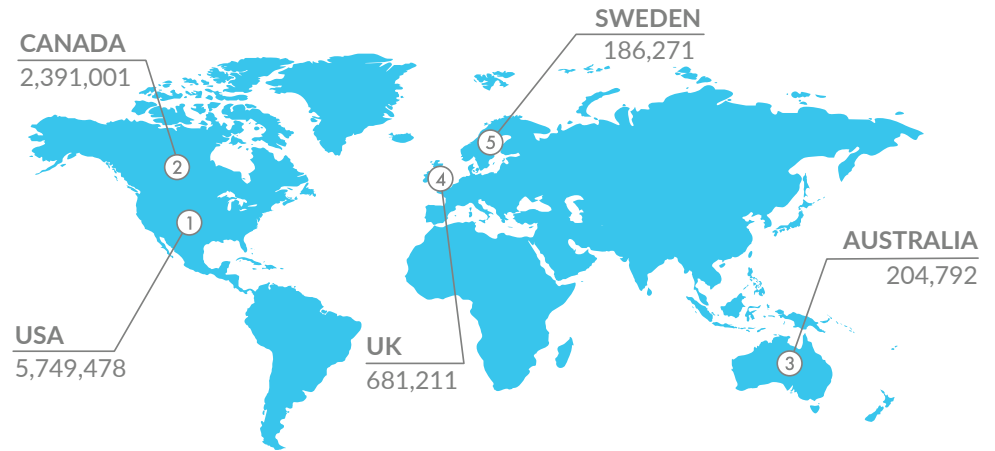
can test their interpretation skills.

When the COVID-19 pandemic hit in North America, EM Cases worked relentlessly to accelerate the publication schedule and published 8 podcasts in just a few weeks which covered COVID-19 epidemiology and prediction models, protected intubation, personal protective equipment, surge capacity strategies, screening, diagnosis and management, colleagues' experiences and oxygenation strategies. A weekly update blog by world experts was also provided until the end of May 2020.

2020 marked the expansion of our Quiz Vault as part of our EM Cases multimodal learning system: **The EM Cases Quiz Vault** is a growing bank of multiple choice questions based on the EM Cases main episode podcast content, where learners can customize a quiz to test their knowledge by episode or medical field. We currently have had 6,184 people from around the world complete quizzes since we launched the project a year and half ago.

Dr. Helman and colleagues also hosted the 6th annual EM Cases Course, a sold-out conference, where participants got a chance to talk face-to-face with EM Cases guest experts about cases, questions, controversies, pearls and pitfalls on the first day. On the second day of the course the participants rotated through high fidelity simulations and rapid cycling procedure training.

## EM CASES NEW USERS - TOP 5 COUNTRIES



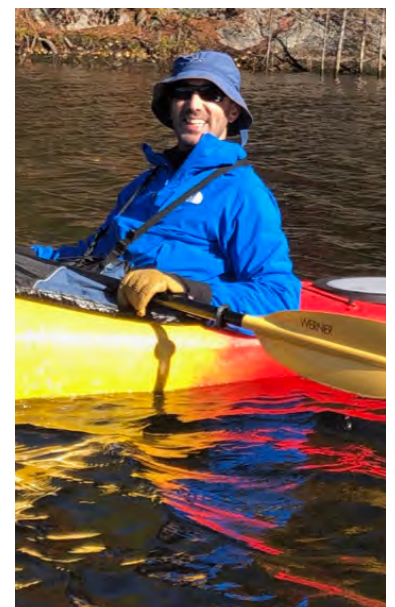
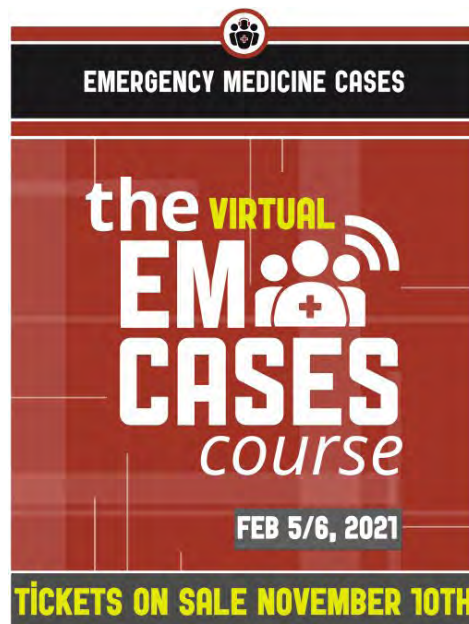
**11.8**  
MILLION  Total downloads  
Since inception (2010)

**2.6**  
MILLION  Total downloads  
Nov. 2019 - Oct. 2020

**220**  
THOUSAND  Average downloads per  
Main episode podcast

**684**  
THOUSAND  Website Users  
Nov. 2019 - Oct. 2020

**1.8**  
MILLION  Website Page Views  
Nov. 2019 - Oct. 2020







# INNOVATION

# RBC Pathway to Peers



**CHRISTINE BRADSHAW**

The emergency department (ED) is often the first point of access to the health care system for young adults with acute mental illness, either because they do not have a primary care provider or access to their provider is not available in a timely fashion. Realistically, accessing the ED can be distressing to youth and young adults, and may induce feelings of helplessness and isolation. Lack of trust of the system, unfamiliarity with resources and procedures, and vulnerable living situations all contribute to the existing gap in supports for young adults. Over the last 5 years, the number of Canadian ED visits by young adults with mental health complaints increased by 50%. Add in a global pandemic and the numbers are staggering. The majority of discharged patients were diagnosed with anxiety/depression which may be amenable to an alternative model of care.



Mount Sinai Hospital's RBC Pathway to Peers (P2P) program is an innovative, patient-centred, young adult focused compliment to care. Made possible through a generous \$2 million donation from the RBC Foundation and the support of our ED and hospital administration, SREMI has partnered with Stella's Place to develop, implement, and evaluate a novel, patient-centred, peer support model of care for young adults (16-29 years) presenting to the ED with mental health and addiction complaints.



Christine Bradshaw, an ED social worker at Mount Sinai, was hired to develop and manage this program. Her familiarity with the department and gaps in the system ensured her ability to help successfully launch this important program.

Our first peer support worker, Mahalia Dixon, was hired in January 2020. She completed her specialized Emergency Department Peer Support Worker training provided by Stella's Place and our RBC P2P manager, Christine Bradshaw. Her start date in the ED was delayed due to COVID-19 regulations. During this time, she continued to work remotely from home, attending virtual team meetings with Stella's Place and Christine, and worked on program brochures, resources lists and other documents to support working with young adults in the ED. Once the hospital moved into COVID-19 Phase 2 in May 2020, Mahalia began providing in-person peer support in our ED. Yolanda, our second peer support worker, joined our team in September 2020 and completed the same one-on-one ED/Peer training and shadowed Christine and Mahalia on multiple shifts. She has acclimated to our ED and has been a wonderful asset to the team.

Despite the COVID-19 global pandemic and delay in the start of the RBC P2P program, July 27 marked the 100th patient seen by our team. Our RBC P2P team have now supported more than 330 young adults in the ED. Unfortunately, many youth services



 **sinaihalthtoronto**   
Mount Sinai Hospital, Toronto

 **sinaihalthtoronto**  A new peer support program at Mount Sinai Hospital has marked an important milestone: helping more than 100 young people navigate the emergency department in the first two months of the program's operation.

The @rbc Pathway to Peers program helps patients between the ages of 16 and 29 experiencing mental health and addiction issues who are accessing emergency care. Pictured here is peer support worker, Mahalia Dixon, alongside the referring

     
 Liked by colinsuttondewar and 227 others

are currently virtual due to the COVID-19 global pandemic. During these challenging times, having face-to-face, real-time connections in the ED provides the much-needed connection, help and support our young adults require. Our RBC P2P workers can identify a young person's immediate needs (e.g. emotional, cognitive support, food, comfort, shelter) so they get the care they need at the right time. The program's peer support workers are available in our Schwartz/Reisman Emergency Centre Monday through Saturday, to assist youth in navigating the mental health care system and connect them with community-based resources to enhance their long-term health.

Our RBC P2P champions have also been recognized as experts and advocates within the broader hospital system. Christine, Mahalia and Yolanda have been invited to join Mount Sinai's stigma committee, bringing a youth perspective to help recognize bias and reduce barriers to ensure inclusive care for all patients. There has been terrific uptake of the RBC P2P program in our ED and feedback from staff has been overwhelmingly positive.



# Research Publications

November 2019 - October 2020



## GERIATRIC EM (n=16)

1. Tate K, Reid RC, McLane P, Cummings GE, Rowe BH, Estabrooks CA, Norton P, **Lee JS**, Wagg A, Robinson C, Cummings GG. Who Doesn't Come Home? Factors Influencing Mortality Among Long-Term Care Residents Transitioning to and From Emergency Departments in Two Canadian Cities. *J Appl Gerontol*. 2020 Oct 7;733464820962638. doi: 10.1177/0733464820962638. Epub ahead of print.
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3. Eagles D, Ellis B, **Melady D**. Frailty: A key concept to improve older person care. *CJEM*. 2020 Sep;22(5):624-625.
4. Lanoue MP, Sirois MJ, Perry JJ, **Lee J**, Daoust R, Worster A, Hegg S, Carmichael PH, Brousseau-Turcotte AA, Émond M. Fear of falling in community-dwelling older adults presenting to the emergency department for minor injuries: Impact on return to the ED and future falls. *CJEM*. 2020 Sep;22(5):692-700.
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8. Rose L, Agar M, Burry L, Campbell N, Clarke M, **Lee J**, Marshall J, Siddiqi N, Page V; Development of Core Outcome Sets for Effectiveness Trials of Interventions to Prevent and/or Treat Delirium (Del-CORs) Group. Reporting of outcomes and outcome measures in studies of interventions to prevent and/or treat delirium in the critically ill: A systematic review. *Crit Care Med*. 2020 Apr;48(4):e316-e324. doi: 10.1097/CCM.0000000000004238.
9. Mercier É, Nadeau A, Brousseau AA, Émond M, Lowthian J, Berthelot S, Costa AP, Mowbray F, **Melady D**, Yadav K, Nickel C, Cameron PA. Elder abuse in the out-of-hospital and emergency department settings: A scoping review. *Ann Emerg Med*. 2020 Feb;75(2):181-191.
10. HIP ATTACK Investigators (**Lee JS**). Accelerated surgery versus standard care in hip fracture (HIP ATTACK): an international, randomised, controlled trial. *Lancet*. 2020 Feb 29;395(10225):698-708.
11. Rosen T, Liu SW, Cameron-Comasco L, Clark S, Mulcare MR, Biese K, Magidson PD, Tyler KR, **Melady D**, Thatphet P, Wongtangman T, Elder NM, Stern ME; Academy of Geriatric Emergency Medicine. Geriatric Emergency Medicine Fellowships: Current State of Specialized Training for Emergency Physicians in Optimizing Care for Older Adults. *AEM Educ Train*. 2020 Jan 21;4(Suppl 1):S122-S129. doi: 10.1002/aet2.10428. eCollection 2020 Feb.
12. Mowbray F, Brousseau AA, Mercier E, **Melady D**, Émond M, Costa AP. Examining the relationship between triage acuity and frailty to inform the care of older emergency department patients: Findings from a large Canadian multisite cohort study. *CJEM*. 2020 Jan;22(1):74-81.
13. **Ringer T**, **Thompson C**, **McLeod SL**, **Melady D**. Inter-rater agreement between self-rated and staff-rated clinical frailty scale scores in older emergency department patients: A prospective observational study. *Acad Emerg Med*. 2020;27(5):419-422.

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## PILLARS OF INQUIRY

- ★ Rigour and Quality: We pursue scholarly rigour and quality in the development and implementation of robust and impactful emergency medicine research and education.
- ★ Patient centred Care: We hear patient voices and change emergency care to improve patient outcomes and health.
- ★ Priority Community Health Concerns: We focus on the health and health system concerns that are the greatest challenge to our patients, communities, and populations. We recognize emergency medicine as a leader in addressing these concerns.

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