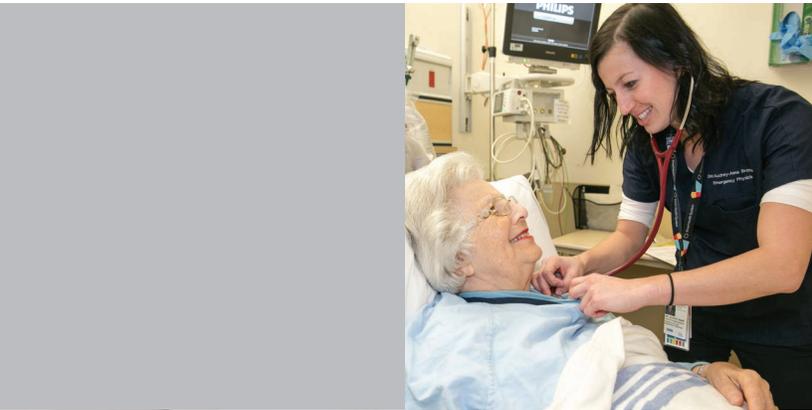
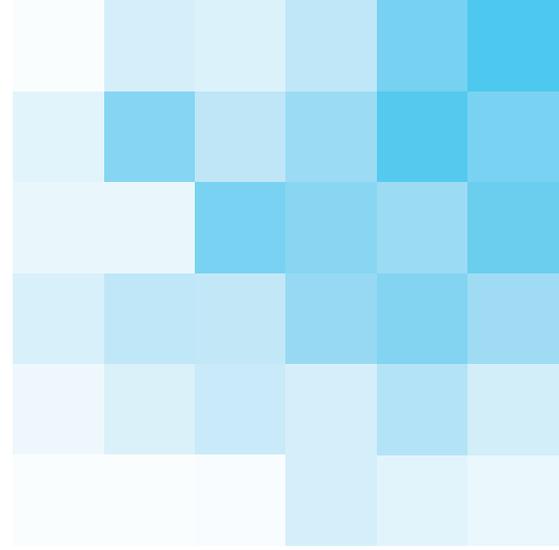


SREMI

SCHWARTZ/REISMAN
EMERGENCY MEDICINE
INSTITUTE

Mount Sinai Hospital
North York General Hospital



Annual Report 2016

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Director

Dr. Bjug Borgundvaag

Executive Liaison Committee

Dr. Howard Ovens

Dr. Kuldeep Sidhu

Research Director

Shelley McLeod

Faculty

Dr. Audrey Brousseau

Dr. Sean Caine

Dr. Anton Helman

Dr. Don Melady

Dr. Aaron Orkin

Dr. Rick Penciner

Dr. Sev Perelman

Dr. Catherine Varner

Research Coordinator

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Mission, Vision & Values

MISSION

To advance the discipline of emergency medicine and improve health through research, knowledge translation and education.

VISION

To be national and international leaders in the development, implementation and promotion of evidenced-based best practice in emergency medicine. We will improve patient care by conducting meaningful clinical research, disseminate new knowledge through innovative education strategies and advocate for system improvement through better public policy in Ontario and beyond.

VALUES

To respect the autonomy of our patients by incorporating both evidence-based medicine and shared decision making principles to optimize healthcare delivery in the emergency department.



Back Row: Cameron Thompson, Howard Ovens, Shelley McLeod, Aaron Orkin, Catherine Varner, Kuldeep Sidhu, Bjug Borgundvaag
Front Row: Audrey Brousseau, Don Melady, Sean Caine, Jane Park, Anton Helman
Missing: Rick Penciner, Sev Perelman

Welcome from the Director



I am delighted to have been appointed to a 5-year term as Director of SREMI, and grateful for the opportunity to build on the efforts of our first 2 years. I would like to thank our IAB Chair, Dr. Brian Rowe, for coordinating my review, and the members of our advisory board for their unanimous approval. SREMI allows us a unique opportunity to improve patient care and advance the discipline of emergency medicine, and I am excited by the thought of what is to come. Following a planning retreat held earlier this year, we have developed a draft strategic plan. With further input from our benefactors, hospital leadership and our advisory board, we are refining this plan, which will serve as a road map for the coming decade.

A key focus at SREMI has been to look for ways to improve both efficiency and quality of care. Highlights of the work you will hear about at our IAB meeting include our FaMOUS project, and our work developing e-learning modules related to alcohol withdrawal. Both aim to teach health care workers new skills to help them efficiently improve care for commonly encountered ED conditions.

We are pleased to announce two new SREMI appointments within the last year. Dr. Don Melady will lead our Care of the Elderly program. Significant progress has been made in this area, including the launching of Canada's first geriatric emergency medicine fellowship (presently being completed by Dr. Audrey-Anne Brousseau from Laval University). Along with our colleagues at the Mayo Clinic and George Washington University, we are developing a substantial research focus in this area.

Our most recent appointment was Dr. Aaron Orkin, who has joined SREMI in the capacity of research fellow. Aaron is a PhD candidate, whose research focuses on optimizing ways to better provide emergency treatment for opiate overdoses in the community, and he also has an interest in public policy surrounding caring for those with opiate addictions.

Additionally, our Research Director, Shelley McLeod was appointed Assistant Professor in the Department of Family and Community Medicine, and continues to pursue her doctorate degree in Clinical Epidemiology with Dr. Gordon Guyatt. Her personal research compliments SREMI's overall focus, including the use of shared decision making in the emergency department.

SREMI has been growing its academic presence locally, nationally and internationally at educational and research conferences. Dr. Catherine Varner, Dr. Don Melady and Dr. Aaron Orkin have collected several prestigious awards for their respective work. Dr. Anton Helman's "EM Cases Course" has sold out for a second year, and EM Cases passed the 3 million download mark, and is currently reaching 40,000 listeners/month.

I would like to thank our benefactors Gerald Schwartz and Heather Reisman, the hospital leadership at North York General Hospital and Sinai Health System, the members of our International Advisory Board, and our staff and partners, for their support, guidance and ongoing commitment to making SREMI a vital and important center for emergency medicine research and education.

A handwritten signature in black ink, appearing to read "Bjug Borgundvaag", with a long horizontal line extending to the right.

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

COLLABORATION



Chair's Report to the Board



Welcome to the Second Annual Schwartz/Reisman Emergency Medicine Institute (SREMI) International Advisory Board (IAB) Meeting. It's been a very busy year for the leadership team and staff of SREMI and I would like to provide an overview on several important issues.

DIRECTOR RE-APPOINTMENT

In response to a request from Dr. Ovens (on behalf of the Executive Committee), the IAB undertook a review of Dr. Bjorg Borgundvaag's leadership as the inaugural Director in order to inform a recommendation regarding extending his appointment. The review built on the information obtained during the first meeting of the IAB in Toronto on November 17th, 2015. Further feedback was sought from SREMI staff and collaborators including medical and nursing staff, leadership from Mount Sinai and North York General Hospital (NYGH) Departments of Emergency Medicine and external stakeholders from the hospital and university. SREMI IAB members provided their input as well.

Most importantly, the IAB recognized the significant accomplishments already achieved in the brief two years of SREMI's existence and unanimously recommended extending Dr. Borgundvaag's contract for a further 5-year term. I am pleased to report that Dr. Borgundvaag accepted the challenge! The IAB further recommended Dr. Borgundvaag develop a strategic plan for SREMI, which will be presented to the Board at the meeting November 28th, 2016.

NEW IAB MEMBER APPOINTMENT

On behalf of the Board and SREMI, I am pleased to welcome Dr. Eva Grunfeld to the SREMI IAB. Dr. Grunfeld is the Giblon Professor and Vice-Chair (Research), Department of Family and Community Medicine at the University of Toronto. She is also a Clinician Scientist with the Ontario Institute for Cancer Research. Finally, she was recently named the Chair of the IAB in Chronic Conditions at the Canadian Institutes of Health Research (CIHR). Those of you who were with us last year will recall she contributed as an IAB guest. We are pleased that she agreed to formally join the IAB.

CONTINUED NYGH ENGAGEMENT

Building on the strong NYGH brand in continuing medical education, a very successful two day conference was held in November 2015, co-chaired by Dr. Kuldeep Sidhu and Dr. Howard Ovens. The conference featured several members of the IAB, the meeting was unique and it was a successful summit of national and international leaders in emergency medicine. The 2016 Emergency Department Administration Conference (EDAC) following the IAB meeting (November 29 and 30) is planned using a similar format. Kuldeep will be providing an update from the NYGH perspective at the IAB meeting.

Another important activity of the SREMI team is the continued success of EM Cases (emergencymedicinecases.com). Under the leadership of Dr. Anton Helman of NYGH and with SREMI support, EM Cases has had widespread dissemination within the EM community, with literally millions of global downloads of their monthly podcasts.

REFLECTIONS FROM THE CHAIR

Despite these early days, it has been hard to turn around in emergency medicine and NOT see evidence of the success of SREMI. Following the inaugural IAB meeting of the SREMI Board, I was able to participate in the EDAC meeting, and attend the “Senior Friendly Emergency Department” Workshop, led by Dr. Don Melady, Dr. Chris Carpenter and their US colleagues. The success of the workshop led to its incorporation into the Western Emergency Department Operations Conference (WEDOC) in Winnipeg in April 2016, coordinated by Dr. Don Melady and Dr. Chris Carpenter.

I am participating on the eCTAS Research Subcommittee where SREMI staff are taking leadership roles and the project has important national implications. Shelley McLeod will be mentioning more about this in her report to the Board. I was witness to the productivity of SREMI at both the Canadian Association of Emergency Physicians (CAEP) and Society for Academic Emergency Medicine (SAEM) Meetings in 2016; I was also made aware of their success at the International Conference on Emergency Medicine (ICEM) in South Africa. I have reluctantly listened to EM Cases and, despite previously being a confirmed and life-long Luddite, even I was converted!

Finally, I have been in contact with the SREMI team and met with Dr. Ovens, Dr. Borgundvaag and Ms. McLeod in Toronto in September, and I am impressed and satisfied with the progress achieved to date.

On behalf of the Board, I'd like to thank Dr. Ovens, Dr. Borgundvaag, Ms. McLeod, and the entire SREMI team for their hard work, dedication and commitment to improving the lives of patients seeking care for acute illness, injury and mental health problems in emergency departments around the globe. The IAB members look forward to working with the leadership team to accomplish the important goals ahead.

Thank you for your participation in the second SREMI International Advisory Board Meeting!

Respectfully submitted,



Brian H. Rowe, MD, MSc, CCFP(EM), FCCP, FCAHS
Chair, SREMI International Advisory Board
Scientific Director, Institute of Circulatory and Respiratory, CIHR
Scientific Director, Emergency Strategic Clinical Network, AHS
Tier I Canada Research Chair in Evidence-based Emergency Medicine
Professor, Department of Emergency Medicine
University of Alberta

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 SREMI with the goal of making SREMI the international leader in emergency medicine research and related teaching.

Service as an IAB member is voluntary. The committee 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. Brian Rowe is an emergency physician and senior scientist at the University of Alberta in Edmonton, Alberta. Dr. Rowe is a Professor within the Department of Emergency Medicine in the Faculty of Medicine & Dentistry and is cross appointed in the School of Public Health. He holds a Tier I Canada Research Chair in evidence-based Emergency Medicine (2011-2018). In 2016, he was appointed the Scientific Director for the Institute of Circulatory and Respiratory Health (ICRH) in the Canadian Institutes of Health Research. He holds the position of Scientific Director within the Emergency Strategic Clinical Network for Alberta Health Services. Dr. Rowe is the Editor of a textbook entitled "Evidence-based Emergency Medicine", is a Co-Editor for the Cochrane Airways Group and a Fellow of the Canadian Academy of Health Sciences (CAHS).

DR. BRIAN ROWE



Dr. Chris Carpenter is an emergency physician and an Associate Professor for 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 Emergency Medicine Section Head for both the Annals of Internal Medicine ACP Journal Club and the Journal of the American Geriatrics Society. He is President of the Society for Academic Emergency Medicine Academy for Geriatric Emergency Medicine, as well as faculty for Emergency Medical Abstracts and Best Evidence in Emergency Medicine. He has co-authored over 120 peer-reviewed manuscripts and two textbooks while developing a consumer-driven Evidence-Based Diagnostic series.

DR. CHRISTOPHER CARPENTER



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 and has a wide range of experience in emergency care clinical research. 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. Dr. Christenson is building an Emergency Medicine Network to facilitate knowledge sharing and support for all emergency practitioners in British Columbia.

DR. JIM CHRISTENSON



Dr. Matthew Cooke is regional clinical lead for London and South at the NHS Improvement Emergency Care Improvement Programme. He is Professor of Clinical Systems Design at Warwick Medical School and also honorary Professor in the Department of Engineering at Brunel University. He is an expert in emergency care systems design and clinical human factors. Dr. Cooke was Deputy Medical Director, and then Director of Strategy at Heart of England NHS Foundation Trust. He 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. He has extensive experience in supporting improvement and change in emergency care in UK and internationally. He is a member of the Nuffield Trust Health Leaders' Panel. In 2015 he was chosen as a WHO advisor in emergency care.

DR. MATTHEW COOKE



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) 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 Chronic Conditions Institute Advisory Board (IABs) for The Canadian Institutes of Health Research (CIHR).

DR. EVA GRUNFELD



Dr. John McLaughlin is Chief Science Officer and a Senior Scientist at Public Health Ontario, and is Professor in the Dalla Lana School of Public Health at the University of Toronto. As an epidemiologist he leads research that integrates diverse disciplines in studies of environmental and biological determinants of health, which has led to more than 270 publications. As a health system executive he steers research and services to have high impact by focusing on addressing disparities, improving system performance and disease prevention.

DR. JOHN MCLAUGHLIN



Dr. Schull is President, CEO and Senior Scientist at the Institute for Clinical Evaluative Sciences, and Professor in the Department of Medicine at the University of Toronto. His research focuses on health service utilization, quality of care, health system integration and patient outcomes, and the evaluation of health policy. His studies use administrative health datasets and linkages with clinical data, and he works closely with health system decision and policy makers. Dr. Schull practices as an Emergency Medicine specialist at Sunnybrook Health Sciences Centre in Toronto.

DR. MICHAEL SCHULL



Dr. Frank Sullivan is an academic family physician with a research focus on health informatics and large clinical trials in community settings. He is currently the Gordon F. Cheesbrough Chair at North York general Hospital and director of the University of Toronto's Practice based Research Network (UTOPIAN). In April 2017 he will return to Scotland as the Professor of Primary care Medicine, at St. Andrew's University Scotland. He will return to clinical work as a general practitioner in Fife and continue as an honorary professor in the Department of Family & Community Medicine and Dalla Lana School of Public Health (University of Toronto). Dr. Sullivan is also an Adjunct Scientist for the Institute for Clinical Evaluative Sciences (ICES) and an honorary professor in the medical school at the University of Dundee.

DR. FRANK SULLIVAN



Dr. Lynn Wilson is the Vice Dean, Partnerships at the University of Toronto. Prior to this role, Dr. Wilson served as Chair of the Department of Family and Community Medicine. 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 is also the co-director of BRIDGES, a Ministry of Health funded project to support the design and implementation of innovative models of care that promote integration in the healthcare system (2011-present). Dr. Wilson currently practices family medicine at the Women's College Hospital Family Health Team in Toronto. Her clinical interests include palliative care, addiction medicine, obstetrics and global health.

DR. LYNN WILSON

Message from the Executive Liaison Committee



The Schwartz/Reisman Emergency Medicine Institute, established in November 2013 by a founding gift from our patrons, Gerald Schwartz and Heather Reisman is a partnership of Mount Sinai Hospital (now part of the Sinai Health System) and North York General Hospital and our Departments of Emergency Medicine in Toronto. Our vision is to advance the discipline of emergency medicine through the development of new knowledge (research) and translating that knowledge into practice (knowledge translation) as well as advocating for system improvement through better public policy.

We held our first International Advisory Board meeting in November 2015 and it's been a busy and productive year that has passed quickly! On the recommendation of the IAB and our Chair, Dr. Brian Rowe, one of the highlights was the reappointment of our inaugural director, Dr. Bjug Borgundvaag, for a 5-year term. In January, we hosted a visit from colleagues from the Mayo Clinic to explore the possibility of creating a collaborative emergency medicine research network and we also held a very successful SREMI staff retreat in February.

In conjunction with the IAB meeting last November, we hosted a very stimulating 2-day international leadership conference, Day 1 focused on ED leadership and Day 2 focussed on creating "senior friendly" EDs. Many of our IAB members

spoke and participated in the meetings. This year, we have partnered with the Ontario Hospital Association in hosting another 2-day leadership summit immediately following our IAB meeting, with Day 2 focusing on Mental Health and Addictions issues. One of us (Howard) also was the guest of IAB member Dr. Chris Carpenter as a visiting professor at the Department of Emergency Medicine at Washington University in St. Louis.

The reports that follow will detail a busy and successful year including the appointment of two new research chairs based at North York, the appointment of new Fellows based at Mount Sinai, including Canada's first Fellow in Geriatric Emergency Medicine, as well as details of publications, grants, abstracts, and the stunning impact statistics from our "FOAMed" initiative (Free Online Access to Medical Education) "Emergency Medicine Cases" – literally millions of global downloads (and a sold-out, in-person course in January, to be repeated this winter – also ALREADY sold out).

In response to challenges and advice from our IAB meeting last year, under the leadership of our Director, Bjug and our Research Director, Shelley McLeod, SREMI has developed an exciting Strategic Plan to focus our efforts going forward and continue the stunning growth and impact we have had already. Of course, all of this is only possible through the gracious support of our colleagues, hospitals and donors.

Howard and Kuldeep

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

Howard Ovens MD FCFP (EM)
Mount Sinai Hospital

A handwritten signature in black ink, appearing to read "Kuldeep Sidhu".

Kuldeep Sidhu MD CCFP (EM)
North York General Hospital

RESEARCH



Research Report

SHELLEY MCLEOD



This past year has been a successful and productive year for the SREMI research program.

INTERNATIONAL COLLABORATIONS

In January, we hosted Dr. Erik Hess and Dr. Annie Sadosty from the Mayo Clinic to discuss the creation of an international collaboration in patient-centered emergency care research. Together we will form a partnership between two clinical research teams with complementary expertise in geriatric emergency medicine, shared decision making and patient-centered care. In February, Dr. Bjug Borgundvaag and I were invited to the Hazelden Betty Ford Foundation in Minnesota where we met with Dr. Marvin Seppala and colleagues to share our results related to the derivation and validation of our iOS tremor application. We have had promising preliminary discussions regarding the use of data from their large cohort of patients in alcohol withdrawal to develop a more reliable, objective way of establishing alcohol withdrawal severity.

RESEARCH IMPACT

SREMI continues to grow our academic profile locally, nationally and internationally. This year, our research team presented over 20 abstracts at major national meetings (Canadian Association of Emergency Physicians, Quebec City; Family Medicine Forum, Vancouver) as well as international (International Conference in EM, South Africa; Society for Academic EM, New Orleans) conferences. SREMI investigators published 19 peer-reviewed

journal articles this year. SREMI scientists have won numerous National awards, recognizing the important contributions we are making towards the advancement of emergency medicine research.

- Dr. Catherine Varner was honoured with the Canadian Association of Emergency Physicians New Investigator Award for her work investigating minor traumatic brain injury and text messaging research participants to improve patient follow-up.
- Dr. Aaron Orkin successfully obtained a Canadian Institutes of Health Research Fellowship award for his doctoral research on methods to enhance community-based naloxone distribution for opioid overdose.
- Our research on the management of uncomplicated urinary tract infections (led by two former emergency medicine residents and supervised by myself, Dr. Sean Caine and Dr. Borgundvaag) recently won the College of Family Physicians of Canada Distinguished Paper Award.

Dr. Borgundvaag has participated in the selection of the first two of five North York General Hospital Research Chairs. We are presently working together to develop several research projects focused on topics of importance in emergency medicine. The success of these recruitments and collaboration are vital to creating an environment to support future scholarly work.

CONTRIBUTIONS TO THE SCIENTIFIC EMERGENCY MEDICINE COMMUNITY

SREMI continues to make valuable contributions to the scientific emergency medicine community. Dr. Borgundvaag and I have taken leadership roles with the research committee tasked to evaluate the implementation of “eCTAS”; an electronic intelligent decision support tool for triage nurses, an Ontario provincial project which will have national implications. Many of our faculty have been invited speakers and program track chairs at CAEP and are vital members of national and provincial committees, working groups and panels. We continue to participate in important randomized controlled trials with our colleagues across the country and remain committed to fostering the research of our own medical students, residents, nurses and junior faculty.

The success of this past year is a direct reflection of the hard work, dedication and enthusiasm of our SREMI team. We will continue to develop and collaborate on innovative projects that will have meaningful impact on advancing the discipline of emergency medicine. Our focus for the upcoming year is to strategically and systematically scale up our research efforts. You will hear more about these efforts at the IAB meeting November 28th.

I would like to thank our Director, Dr. Borgundvaag for his leadership, the SREMI research faculty, our research coordinator, Cameron Thompson and our generous benefactors, Gerald Schwartz and Heather Reisman, for their ongoing patronage and support.

Respectfully submitted,



Shelley McLeod PhD(c) MSc MSc BScHons
Research Director
Schwartz/Reisman Emergency Medicine Institute



Academic Achievements & Awards

SREMI BY THE NUMBERS



Peer-Reviewed Grants*
Collaborator: >\$2.6 million

Peer-Reviewed Grants*
Primary Investigator: \$330,000

Non Peer-Reviewed Grants*
Primary Investigator: \$50,000



Number of Peer-Reviewed Grants
under consideration: 6 (\$965,000)

6 research of excellence awards



19 on-going projects

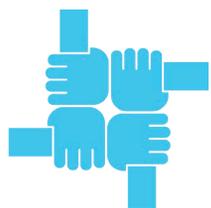
19 peer-reviewed journal
publications

7 research abstracts presented at
Local meetings



13 research abstracts presented at
National meetings

7 research abstracts presented at
International meetings



Mentored 4 residents, 4 research
nurses, 3 medical students, 2 PhD
candidates, 2 research fellows

2 new SREMI appointments and
1 new project manager

*Since inception

Ivy Oandasan Leadership Award for Outstanding Contributions in Advancing Interprofessional Education. Centre for Interprofessional Education, University of Toronto.
DR. RICK PENCINER

Distinguished Paper Award. College of Family Physicians of Canada.
SHELLEY MCLEOD, DR. SEAN CAINE & DR. BJUG BORGUNDVAAG

Promotion to Assistant Professor. Department of Family & Community Medicine, University of Toronto.
DR. CATHERINE VARNER

Peter McCracken Physician Innovator in Education Award. Canadian Geriatrics Society.
DR. DON MELADY

Janus Research Grant. The College of Family Physicians of Canada.
DR. BJUG BORGUNDVAAG

New Investigator Award. Canadian Association of Emergency Medicine.
DR. CATHERINE VARNER

CIHR Fellowship. Canadian Institutes of Health Research.
DR. AARON ORKIN

Excellence in Creative Professional Activity Award. Department of Family & Community Medicine, University of Toronto.
DR. ANTON HELMAN

Appointment to Assistant Professor. Department of Family & Community Medicine, University of Toronto.
SHELLEY MCLEOD

Excellence in Course/Program Development Award. Department of Family & Community Medicine, Faculty of Medicine, University of Toronto.
DR. RICK PENCINER

Award of Excellence in Innovative Continuing Medical Education. Department of Family & Community Medicine, Faculty of Medicine, College of Family Physicians of Canada.
DR. DON MELADY

Appointment to Assistant Professor. Department of Family & Community Medicine, University of Toronto.
DR. AARON ORKIN

Richard K. Reznick Research Award. Wilson Centre Research Day.
DR. CATHERINE VARNER

Ontario Innovation Fund Showcase 2016: Innovation, Integration and Implementation.
DR. BJUG BORGUNDVAAG

SREMI Team



Director
Dr. Bjug Borgundvaag



Executive Liaison Committee
Dr. Howard Ovens



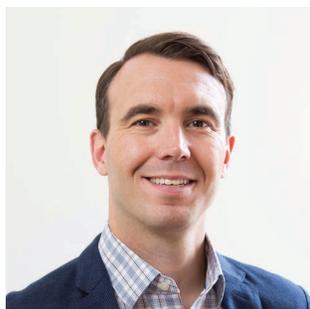
Executive Liaison Committee
Dr. Kuldeep Sidhu



Research Director
Shelley McLeod



Faculty
Dr. Audrey Brousseau



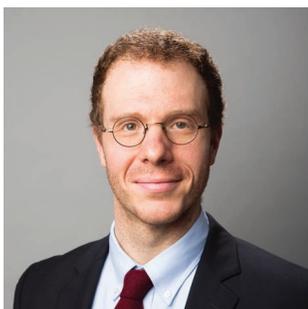
Faculty
Dr. Sean Caine



Faculty
Dr. Anton Helman



Faculty
Dr. Don Melady



Faculty
Dr. Aaron Orkin



Faculty
Dr. Rick Penciner



Faculty
Dr. Sev Perelman



Faculty
Dr. Catherine Varner



Research Coordinator
Cameron Thompson



Project Manager
Jane Park

SREMI Clinician Scientist Profile

DR. CATHERINE VARNER



A RISING STAR IN EMERGENCY MEDICINE RESEARCH

SREMI scientist and emergency physician, Dr. Catherine Varner has quickly become a rising star in emergency medicine research and education. In June 2016, Dr. Varner was honoured with the Canadian Association of Emergency Physician (CAEP) New Investigator Award in recognition of her outstanding contribution to research in emergency medicine, specifically pertaining to the novel idea and successful implementation of text messaging to facilitate research participant follow-up.

Nested in her randomized controlled trial evaluating the effectiveness of discharge instructions for minor traumatic brain injury (MTBI), patients receiving text message reminders of upcoming telephone follow-up interviews had lower rates of study attrition than those patients who did not receive text messages (32% vs 10%; Δ 22%, 95% CI: 5.9%, 34.7%). Dr. Varner's findings suggest text messaging is an easily-adopted, low-cost technique that can improve study participation and follow-up, particularly in the low-continuity ED setting.



SHEDDING LIGHT ON MINOR TRAUMATIC BRAIN INJURY

Launching in 2017, a study led by Dr. Varner will evaluate a novel approach to monitoring the compliance of MTBI patients with ED discharge instructions while also comparing two different approaches to counseling patients following MTBI. The randomized control trial will challenge the current 'sit in a dark room' treatment dogma following MTBI and will evaluate the impact of prescribing light, daily exercise as compared to avoidance of exercise until symptom free. Recognizing patient compliance with discharge instructions may be variable, fitness tracking devices (ie: FitBits) will be used to measure study participants' activity levels following their discharge from the ED.

Due to her growing reputation in the field of MTBI research, Dr. Varner was an invited member of the 2016 Summit on Concussion Care and has been invited for media appearances on the topic. At the Summit and subsequent meetings hosted by the Ontario Neurotrauma Foundation, leading concussion experts developed standards of care for the more than 50 concussion clinics that treat patients in Ontario.



ENHANCING THE CARE OF OBSTETRICAL PATIENTS THROUGH POINT OF CARE ULTRASOUND

Dr. Varner's research interest extends beyond the area of MTBI. Dr. Varner recently received two grants from the Faculty of Medicine and Department of Family and Community Medicine, University of Toronto to design the Family Medicine Obstetrical Ultrasound (FaMOUS) course, which trained 15 family physicians in first trimester point of care ultrasound (POCUS) techniques to identify fetal cardiac activity and exclude ectopic pregnancy. After following these providers for 9 months following certification, they have demonstrated excellent diagnostic accuracy and report POCUS has enhanced the care of their obstetrical patients. This novel course creates a model to teach and certify family physicians who want to utilize 1st trimester POCUS in the office setting to exclude ectopic pregnancy and offer patients more immediate clinical information regarding their pregnancy.

Dr. Varner has received numerous local and national awards for this work, and was most recently honoured at the Richard K. Reznick Wilson Centre Research Day in November 2016.

SREMI Researcher Profile

DR. AARON ORKIN



NEWEST MEMBER OF A GROWING TEAM

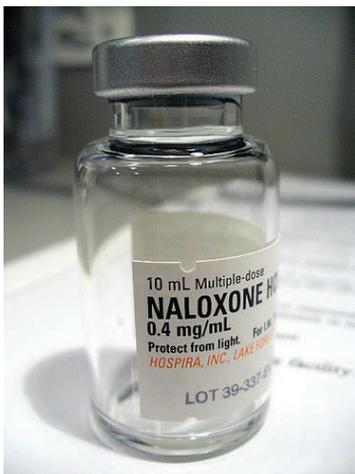
Dr. Aaron Orkin is the newest member of the SREMI team. He is an emergency and public health physician, and a doctoral student in Clinical Epidemiology and Health Care Research at the University of Toronto. His research is supported by a Fellowship Award from the Canadian Institutes of Health Research and the Schwartz/Reisman Emergency Medicine Institute.

Dr. Orkin's research engages laypeople directly in the delivery of emergency care, especially through innovative first aid programs that target vulnerable and underserved patients.

AN OPIOID ANTIDOTE

Opioid overdose is now a global epidemic, and the third leading cause of accidental death in Ontario. People dealing with drug-related emergencies can face barriers that distance them from emergency health services, with tragic and often fatal results. Dr. Orkin's research is about distributing an opioid antidote called naloxone to people who are likely to witness overdose, and equipping them with the life-saving skills that they need to respond to overdose emergencies. Dr. Orkin's research focuses on community-based and collaborative strategies that involve patients in every step of the research process. His research is

reshaping how laypeople respond to everyday emergencies, enhancing the way emergency providers engage with vulnerable populations, and activating the public to respond to complex community health problems.



Dr. Orkin helped pioneer Ontario's first naloxone distribution program in Toronto. Dr. Orkin developed the first American Heart Association guidelines for overdose education and naloxone distribution, and was invited to address Canada's national summit on opioids. His research engages with partners in public health, family medicine, resuscitation, addictions and mental health across Canada, and with community and non-profit agencies including the American Heart Association, Heart and Stroke Foundation Canada, and the Canadian Red Cross. Dr. Orkin's research and collaborations extend emergency medicine and research beyond hospital doors and into the hands of the patients who need it most.

EDUCATION



Geriatric Emergency Medicine DR. DON MELADY



“Older people in the ED have unique needs...that require unique approaches to care”

~ Dr. Don Melady

CANADA'S FIRST GERIATRIC EMERGENCY MEDICINE FELLOWSHIP

2016 has been quite the year for Dr. Don Melady, our Geriatric Lead at SREMI. Dr. Melady has successfully developed Canada's first geriatric emergency medicine (GEM) fellowship. This is one of very few post-licensure fellowships available to emergency medicine trained specialists. It was designed in cooperation with PGME at the University of Toronto and subsequently approved through a rigorous process by the Society of Academic Emergency Medicine. We were able to attract an excellent fellow, Dr. Audrey-Anne Brousseau from Laval University, who divides her time between clinical shifts in the ED (functioning as a staff); advanced training in geriatric medicine, psychiatry, palliative medicine, trauma; research (focusing on frailty in the emergency department); and a diploma in adult education.

IMPROVING THE CARE OF OLDER PEOPLE THROUGH THE GERIATRIC ED COLLABORATIVE

Dr. Melady has also been working with the Geriatric ED Collaborative. This grew out of an invitation (from Dr. Chris Carpenter) to join the team of four American colleagues that had been involved with drafting the Geriatric ED Guidelines and subsequently involved in developing a strategy for disseminating and implementing them. The collaborative started as two pilot projects in Milwaukee and Pittsburgh (2014-15), to work with hospital front-line staff through to CEOs, in changes that allowed for better care of older people. The project was subsequently championed by the American Geriatric Society as a model for change and received a USD \$1.3 million grant from the John A. Hartford Foundation and a matching grant from the West Health Foundation to scale it up to nine health care systems. The goals are to build a learning collaborative for further spread and to develop a research network to assess outcomes. In the past year, the group has developed a major project with the University of California at San Diego and ongoing activities at Milwaukee, Pittsburgh, Mount Sinai New York and Northwestern University in Chicago.



ACUTE CARE OF THE ELDERLY COLLABORATIVE

Dr. Melady is also involved in a parallel project, the Acute Care of the Elderly Collaborative, funded by the Canadian Foundation for Healthcare Improvement. This project uses Mount Sinai's reputation as a leader in senior-friendly models of care to develop a collaborative of 18 hospitals across the country. Dr. Melady co-chairs the EM section and facilitates regular webinars and coaching sessions (including a two-day on-site conference which he organizes) to support ED teams to improve patient care.



INTERNATIONAL REACH

At the International Conference on Emergency Medicine in Cape Town in April 2016, Dr. Melady was responsible for planning the geriatric content of the conference, bringing together researchers and educators from nine countries. Don is also the Chair of the Geriatric EM Interest Group within the International Federation of EM, and co-Chair of the CAEP Geriatric EM Committee. Dr. Melady shared the planning and delivery of a four-day Integrated Emergency Care of the Older Person Symposium in Australia in October, 2016.



SUPPORTING SENIOR-FRIENDLY EDs ACROSS CANADA

The Senior-Friendly ED Course, a development out of the Geriatric-ED Bootcamp, has now been presented in Toronto (15 hospitals; 3 provinces, 4 states), Winnipeg (15 hospitals; 4 provinces), Melbourne, Australia (20 hospitals; 5 countries), and will be presented in Vancouver in January 2017. Dr. Melady received an innovation grant to develop www.geriatric-ED.com, which will be a resource to ED and hospital managers across Canada in implementing senior-friendly ED change. The site is currently under development with an expected launch in March 2017.

EM Cases

DR. ANTON HELMAN



EMERGENCY MEDICINE CASES

Bringing you Canada's brightest minds in Emergency Medicine

Emergency Medicine 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.

CANADA'S MOST LISTENED TO EMERGENCY MEDICINE PODCAST

2016 has been a tremendously successful year for EM Cases with a growing content team of 18 emergency physicians and residents. EM Cases is Canada's most listened to emergency medicine podcast with thousands of subscribers, well over 3 million podcast downloads since 2010, and are currently ranked #12 in Canada in Science & Health podcasts on iTunes. Page views on the website have surpassed 1.5 million. The number of users of the website has increased more than 100% over the last year. 2016 marked the release of the second EM Cases Digest eBook, this time covering Pediatric Emergencies. Dr. Helman and colleagues also had the first ever 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. The course allowed the participants to be engaged in their learning in small groups with a flipped-classroom model: they listened to the podcasts related to each workshop prior to the course. The EM Cases Course also had the first ever Live EM Cases Podcast recording which was subsequently downloaded about 30,000 times when made available on the website and iTunes. There was featured a simulation workshop with expert commentary and feedback.



EXCELLENCE IN CREATIVE PROFESSIONAL ACTIVITY

Dr. Helman's incredible vision and execution of EM Cases goes way beyond just a novel development of an innovative instructional method. He has contributed to innovative change in how emergency physicians learn and interact. In respect of his efforts, Dr. Helman was honoured with the "Excellence in Creative Professional Activity" award from the Department of Family and Community Medicine at the University of Toronto.

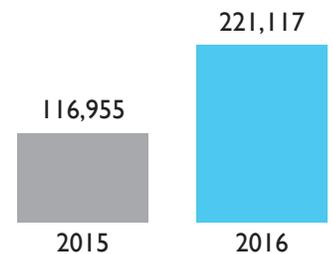
3.3
MILLION
Total number of podcast downloads since inception (2010)

1.5
MILLION
Total number of podcast downloads past year (11/15-10/16)

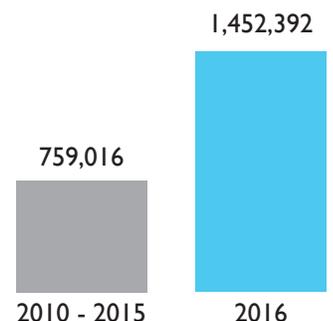
28
THOUSAND
Main Episodes: Average number of downloads per podcast

35
THOUSAND
Best Case Ever: Average number of downloads per podcast

NUMBER OF WEBSITE USERS HAS INCREASED BY 89% SINCE 2015



TOTAL WEBSITE PAGE VIEWS HAS INCREASED BY 91% SINCE 2015





EM CASES PODCASTS:

EM Cases' Journal Jam Podcast brings together world-

renowned researchers and educators to keep learners up to date on key research publications in emergency medicine. Best Case Ever Podcast has guest experts sharing their tacit knowledge on particularly interesting cases.



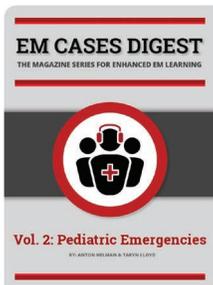
EM CASES BLOGS:



EM Cases also offers the CritCases

Blog with challenging emergency critical care cases and Waiting to Be Seen Blog covering important administration topics in emergency medicine.

EM CASES WEBSITE USERS - TOP 5 COUNTRIES



EM CASES DIGEST: VOL. 2

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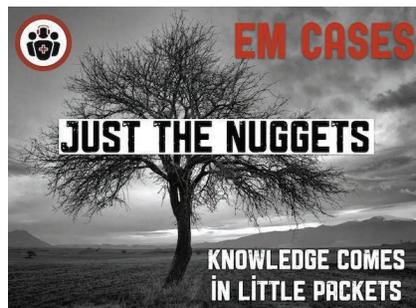
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NEW EM CASES PROJECTS: Q&A PEARL OF THE WEEK

Other new EM Cases projects included "The Q&A Pearl of the Week" where subscribers to the EM Cases Newsletter choose to receive a clinical Q&A in their email inbox weekly with links back to the related podcasts or blog posts as well as a reference.



JUST THE NUGGETS & SCREENCAST RAPID REVIEWS

In an effort to bundle information for learners (an avenue deemed important to explore from the annual EM Cases retreat) there are two new EM Cases projects being developed: Just The Nuggets where learners can sign up to receive directly into their inbox the key points from the main EM Cases episodes.

This project represents the realization of the current learning theory spaced repetitive interleaved learning. In an effort to move toward providing material for EM residency curricula (another avenue discussed at the annual retreat), the 2nd project, Screencast Rapid Reviews are 10-15 minute condensed reviews of the main episode podcasts designed specifically for residents to help them study for exams.

CONNECT

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