DEPARTMENT OF
Emergency Medicine
2018 Annual Report
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MESSAGE FROM THE DEPARTMENT HEAD

David Messenger, MD, MM, FRCPC, FCCP
Associate Professor and Department Head

In this 2018 Annual Report, it is my pleasure to once again celebrate the people, programs and progress of the Department of Emergency Medicine at Queen’s University. As I enter my third year as Head of the Department, I am humbled by, and immensely proud of the remarkable achievements of both individual members and the department itself.

We truly have much to celebrate. We take immense pride in providing emergency care of the highest quality to our patients, despite ever-growing volumes and levels of patient complexity. The highly skilled and compassionate clinicians in our department are second to none, and we are rightly proud that as the oldest Department of Emergency Medicine in Canada, we maintain a well-earned reputation for clinical excellence.

Our residency training programs are at the top of their games, and our exceptional group of EM trainees are emerging as tomorrow’s leaders in both academic and community Emergency Medicine in Canada. Our teaching programs benefit from the expertise and dedication of their program directors, as well as from the engagement of our group of highly productive educational scholars. We continue to incorporate new and innovative teaching and learning opportunities into our curricula, and the prioritization of our educational mandate by every single member of our department’s faculty allows us to continue to boast that Queen’s is the best place to train in EM in Canada.

Our departmental contributions to research and scholarship in clinical EM, medical education, health services and policy, and in global health continues to grow by leaps and bounds. From the recognition of Dr. Susan Bartels with the Miran and Mary Basmajian Award for Health Sciences Research, to Dr. Kieran Moore’s $3M CIHR project grant to establish a Canadian Lyme Disease Research Network within our Department, 2018 has seen our departmental research profile raised to remarkable new heights.

Behind all of our department’s successes stands a team of faculty members and staff who represent the best of the best in Canadian Emergency Medicine, both with respect to clinical expertise and academic engagement. We continue to grow our numbers, and to recruit outstanding academic emergency physicians to help build our department. The collegial and familial culture of our department remains at the heart of all our shared work.

While we have much to celebrate, we must also acknowledge that not all aspects of 2018 have been without challenges, particularly at the front lines of patient care. Our clinical facilities are in desperate need of replacement and demonstrate their inadequacy for emergency patient care all too frequently. The exponential growth in acute mental health presentations, substance use disorders, frail elderly and complex, chronic multisystem diseases taxes our ED, hospital and community resources and makes the provision of care that much more challenging. And the issue of violence in healthcare and the safety of patients and staff has taken on a new level of urgency for us all following the shocking shooting that took place in our department last fall. While the impact of these many challenges should not be trivialized or understated, they nevertheless serve as a daily demonstration of the resilience and capacity for creative problem-solving of all members of our team, and they underline the importance of preserving a departmental culture of mutual support, prioritization of wellness and professional sustainability, and passionate advocacy for change and improvement in support of our clinical, educational and academic missions.

It is a privilege for me to lead this department, and to promote, celebrate, and advocate for the remarkable team that makes up the Department of Emergency Medicine at Queen’s University. I hope that in reading this 2018 Annual Report, you will share my sense of pride and optimism about what we’ve accomplished together, and about how we will advance together in the years ahead.

David Messenger, MD, MM, FRCPC, FCCP
Associate Professor and Department Head
What’s new in Emergency Medicine
OUTGOING RESIDENTS – FRCPC

No Picture

Dr. Mikayla Brenneis

Dr. Stuart Douglas

Dr. Aaron Ruberto

Dr. Heather White

Dr. Matt White

INCOMING RESIDENTS – FRCPC

Melissa Bouwsema

Taylor Nikel

Evan Russell

Nathaniel Walker

John Van Tuyl

OUTGOING RESIDENTS – CCFP-EM

Brendan Bechamp

Al Haddad

Brendan Irish

Gabor Bacskaí

Alastair Crow

Sandra Huynh

Alex Leung

Justin Logan

Nick McPhail

Philip Lee

Aida Owlia

Andrei Garcia Popov

Rimi Sambi

Heather Sawula

Sunpreet Sunil

Saahil Vij

INCOMING RESIDENTS – CCFP-EM
Dr. Susan Bartels

Dr. Bartels is a Clinician Scientist recruited to the Department of Emergency Medicine, from Harvard, in 2014 to develop a research and leadership profile in Global Health. Her research is focused on the assessment and management of maternal and child health inequities in humanitarian settings affected by conflict or environmental disasters.

Dr. Bartels was the recipient of the 2018/19 Mihran and Mary Basmajian Award for Excellence in Health Research. This award was established by Dr. John Basmajian, former Head of the Department of Anatomy at Queen’s University in honour and memory of his parents Mihran and Mary Basmajian. The award is given to a full-time member of the Faculty of Health Sciences who is judged to have made the most meritorious contributions to health research during the previous year or several years.

Ms. Audrey Hunt

**Distinguished Service Award Recipient**

The Department of Emergency Medicine is proud of the outstanding accomplishments of the outgoing Manager of Operations, Ms. Audrey Hunt. Her tenure at Queen’s University from 1979 to 2019 had a significant impact on the University. Her outstanding contributions were recognized at the Annual Distinguished Service Awards.

This award was launched in 19474 to recognize exemplary service to Queen’s University and recognizes the breadth of impact of the recipient as well as contributions that are above and beyond what would normally be expected, length of service and contributions to the University as a whole.

Audrey ticked all of those boxes (and more) and is a well deserving recipient of the award.

Dr. Gene Dagnone

Dr. Gene Dagnone received an honorary lifetime membership for CAEP – Canadian Association for Emergency Physicians.

Dr. Damon Dagnone

Dr. Damon Dagnone received the Principal’s Award for Educational Leadership. This award was given in recognition of Dr. Dagnone’s demonstrated leadership in influencing positive educational change at Queen’s University.
Ms. Audrey Hunt

**Outgoing Manager of Operations**

In 1979, Audrey Hunt began her career at Queen’s University as a secretary in the Department of Classics. She broadened her experience at the university through a number of roles in the Student Awards Office and the Department of Community Health and Epidemiology, and eventually was recruited to the Department of Emergency Medicine in 1997.

The Department of Emergency Medicine was new in 1997, and was the first of its kind in the country. Audrey has led its administrative team since that time. In those 21 years, the number of faculty and medical residents has almost quadrupled, fellowship and research programs have been established, and the department has been recognized locally, nationally and internationally as a leader in clinical research, simulation-based education, and curricular development.

Audrey was presented with a Queen’s University Distinguished Service Award, in November 2018. An excerpt from her nomination letter reads: “Over her almost 40-year career, Audrey has quietly enabled and encouraged an entire generation of students, faculty and staff to achieve their personal and professional goals, which has in turn furthered the reputation of Queen’s University as one of the best. With unwavering consistency and dedication of purpose, Audrey Hunt has truly been an exemplary role model for ‘the strength that is Queen’s.’”

Audrey and her husband Rick plan to become the stereotypical retired couple, gardening, riding their bikes, traveling across North America in their RV and enjoying their new reality of waking up without an alarm clock!

The department is thankful for Audrey’s dedication over the years. She will be dearly missed!

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**NEW FACULTY**

Dr. Heather White

Dr. Heather White joined the Department of Emergency Medicine on July 1, 2018 as Assistant Professor. She completed the Resuscitation and Reanimation Fellowship at Queen’s as well as her Fellow of the Academy of Wilderness Medicine designation through the WMS. Her clinical areas of interest are in wilderness medicine and simulation – specifically starting up an in situ simulation program in the ED.

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Ms. Jill McCreary

**Manager of Operations**

Jill joined Queen’s University in 2011 within the Department of Family Medicine. She was recruited by the Department of Medicine where she occupied various roles including Special Projects and Communications Coordinator and Acting Manager.

Jill joined the Department of Emergency Medicine in 2018 as Manager of Operations, taking over from Ms Audrey Hunt. Since she joined the Department, Jill has had the pleasure to learn from Audrey, and has quickly developed a fondness for the Department, faculty and staff.

In the short time Jill has been with the department, she has begun to make her mark. She has been working tirelessly to create a strong team dynamic within the Emergency Medicine Administrative Team, as well as by building strong relationships with faculty. She is reviewing current processes with a view for improvement and innovation, striving to elevate the profile of the department.

We look forward to what the future holds as Jill helps to lead the Department alongside Dr. Messenger, Department Head.
FACULTY AND STAFF

Dr. Susan Bartels
Dr. Colin Bell
Dr. Elizabeth Blackmore
Dr. Danielle Blouin

Dr. Erin Brennan
Dr. Robert Brison
Dr. Steven Brooks
Dr. Eric Bruder

Dr. Jennifer Carpenter
Dr. Jaelyn Caudle
Dr. Timothy Chaplin
Dr. Damon Dagnone
FACULTY AND STAFF

Dr. Stuart Douglas  
Dr. Kenneth Edwards  
Dr. Christopher Evans  
Dr. Karen Graham  
Dr. Steven Brooks  
Dr. Daniel Howes  
Dr. Gordon Jones  
Dr. Jim Landine  
Dr. Robert McGraw  
Dr. Colin Mercer  
Dr. David Messenger  
Dr. Max Montalvo
FACULTY AND STAFF

Dr. Melanie Walker, PhD
Dr. Heather White

Ms. Susan Holland
Ms. Audrey Hunt
Mr. Vlad Latiu
Ms. Mary Lee

Ms. Kim Marsh
Ms. Jill McCreary
Ms. Jessica Montagner
Ms. Yvette Chirinian
No Picture
Clinical Care
Program Medical Director Updates

Once again the KGH Emergency Department has had a very busy and productive year and serves as the tertiary care Emergency Department for South East Ontario.

The department works with all of the other clinical departments at Queen’s University and is grateful for the support and collaboration received from all consulting and admitting services in offering excellent Emergency Care to the people of South Eastern Ontario. The Emergency Department offers tertiary care to patients via the Regional Acute Stroke Program, Interventional Cardiology/PCI protocol and the Trauma Service in addition to tertiary care offered by all specialties. Of note there were 385 trauma team activations for 2018.

The Department has seen a 3% increase in annual visits per year for the past several years. The admission rate for patients is 20% and the projected patient volume for 2019 is 64,000 patients. The CTAS breakdown for the patient population is:

- CTAS 1-1%
- CTAS 2-20%
- CTAS 3-51%
- CTAS 4-26%
- CTAS 5-2%

One of the biggest challenges over the past 10 years has been ED LOS (Emergency Department Length of Stay) for admitted patients. The current LOS is 30.2 hours which is a 28% improvement from 2 years ago. This improvement has significantly improved the overall provincial rating to 40/74 (all hospitals) and 9/17 (provincial teaching hospitals). This improvement has been achieved by collaboration with all hospital departments and senior administration staff and has occurred.

"The Department has seen a 3% increase in annual visits per year for the past several years."
The HDH Urgent Care Centre continues to provide excellent patient care while providing a rich learning opportunity for all levels of medical trainees from the Queens Faculty of Health Science. The centre remains a high volume, high acuity urgent care centre with almost 4% of patients requiring transfer to Kingston General Hospital for consultation or admission. There continues to be a growing sense that patient complexity is increasing and this is supported by the fact that in the past 10 years our annual numbers reflect the following increases:

- **Overall Volume** (increased by 5.2% in past 5 years)
- **Volume >65yrs**
- **Transfer Volume**

These numbers reflect the fact that the centre is serving a rapidly growing elderly population and transferring more patients requiring a higher level of care. In order to support a growing number of staff and learners, with subsequent increasing use of computer work stations, the department is seeking to renovate the central work space in order to optimize patient flow. Recent improvements have included a new Ophthalmology/ENT room as well as a new airway cart.
2018 was another hugely successful year for the FRCPC Residency Program.

In March, the program once again received full accreditation status. The program strengths highlighted in the report include: program leadership that is responsive and effective in formulating change, a supportive Residency Program Committee, faculty who are wholly immersed in teaching, well-resourced and excellent teaching in simulation, ultrasound and cadaveric procedures and an outstanding curriculum for leader competencies. With this truly remarkable result, we can maintain focus on program growth and innovation to build on our strong foundation until our next Royal College Survey in 2026.

The transition of Queen’s EM to a full CBME model continues. With now two years of ‘true’ CBME residents in the residency program we are starting to realize some of the flexibility for individual learning needs this curricular model promised. Together with the Academic Advisors (Drs. Erin Brennan, Gord Jones, Jim Landine, and Terry O’Brien), Andrew Hall and I continue to work on developing a seamless assessment, evaluation and promotion process for our residents so critical for the success of CBME.

In the Fall, we piloted a new system for providing feedback to individuals presenting large and small group teaching sessions. The goal was to move beyond ‘good job’ comments to facilitate concrete constructive feedback for the presenter. The results of a pilot study are being reviewed and will inform the system we implement for evaluation of teaching in small and large group rounds in the 2019/2020 academic year.

Thank you all for the time and dedication you provide to our residency program!

"With now two years of ‘true’ CBME residents in the residency program we are starting to realize some of the flexibility for individual learning needs this curricular model promised."
Postgraduate Medical Education

Joey Newbigging, BSc, MD, CCFP (EM), FCFP
Program Director – CCFP-EM

We have had another productive year and the program continues to evolve. Our eight residents are progressing well with the majority having already secured jobs or fellowships upon graduation. Two of our residents are doing POCUS fellowships (Toronto and Vancouver), and the others are joining EDs in Toronto (Humber River, Sunnybrook), Belleville, Vancouver, and Napanee.

We expanded our CaRMS selection process this year, adding multiple file reviewers and serial interviews with the help of CCFP-EM faculty from Kingston and our community hospital partners. These changes led to an easier consensus on resident ranking, and we are very optimistic that we have a stellar bunch of residents coming in July (four Queen’s, two Dalhousie, one Toronto, one McMaster).

In addition to our usual eight CCFP-EM positions, after almost two years of preparation, we will be launching our new Queen’s-Cornwall CCFP-EM Return-of-Service program. The Cornwall Community Hospital and Foundation have committed to funding the training of 1-2 CCFP-EM residents each year for the next 2-3 years, with a two-year return-of-service to Cornwall’s emergency department. Starting in July we will have two Cornwall CCFP-EM residents, one CaRMS-selected and one re-entry, both of whom are felt to be excellent candidates. The Cornwall residents will do their four emergency medicine blocks and POCUS block in Kingston, their pediatric EM rotation at CHEO, and all of their off-site rotations in the community of Cornwall (ICU, Ortho, anaesthesia, community EM).

This year we had our first joint CCFP-EM/FRCPC cadaver courses which focused on airway and rare procedures. Residents practiced airway management with direct laryngoscopes, LMAs, bougies, video laryngoscopes and fiberoptic bronchoscopes with tissue-fidelity on fresh-frozen cadavers. Residents were also able to practice surgical airways, chest tubes, lateral canthotomies, and resuscitative thoracotomies.

Other additions this year were a horizontal toxicology flipped-classroom curriculum, a trauma rotation option at St. Michael’s Hospital or Sunnybrook in Toronto, and a summer central-line course for all residents.

In the 2019-2020 academic year we are looking forward to the addition of a horizontal airway simulation curriculum with regular airway OSCE assessments, further solidification of our cadaver courses, and the implementation of some horizontal critical appraisal activities in hopes of improving the likelihood of CAT project publication.

A big thank you to all of our KHSC and community faculty for their amazing commitment, teaching and mentorship of our residents! Our program could not operate without the generous contribution of time and effort from all of our creative and talented faculty.
Fellowship Updates

The Global Emergency Medicine Fellowship had a productive second year of training. Its inaugural fellow, Dr. Amanda Collier, continued to work on, and is now nearing completion of, her online Masters of Public Health degree from John Hopkins University.

She also deployed with Partners in Health Haiti, working in their newly established Emergency Department in Mirebalais as a visiting Professor to teach and supervise trainees in the only Emergency Medicine post-graduate program in the country. Dr. Collier also completed the Hostile Environment Awareness and Humanitarian Principles training course with Medical Teams International prior to deploying with them to work in the Kutupalong refugee camp on the Myanmar / Bangladesh border for two months. This deployment included working in the clinics providing medical care to Rohingya refugees and providing capacity building for the national physicians and nurses who are the permanent staff in those clinics. Dr. Collier also participated actively in the CAEP Global EM panel, co-presented at the Academic Symposium on behalf of the panel and is the first author on an upcoming manuscript presenting recommendations to support global emergency medicine in academic departments and divisions. In other CAEP news, the Fellowship’s poster presentation was named in the Top 7 Education Innovation’s section.

In 2018 our department began to explore the possibility of joining a Queen’s University collaboration with the Haramaya University in Harar, Ethiopia to support local training programs in Emergency Medicine, Anaesthesia and Oncology. If we move forward with this collaboration, Global Emergency Medicine fellows will support the work and gain hands-on experience in Ethiopia.

The Fellowship also continues to formalize partnerships with international organizations and successfully signed a Memorandum of Understanding with Doctors Without Borders / Médecins Sans Frontières (MSF) Canada in the fall of 2018. We are optimistic that partnerships such as these will facilitate deployments for future fellows who are interested in these types of opportunities.

Finally, we are pleased to have accepted our second Global Emergency Medicine Fellow, Dr. Jodie Pritchard coming from McMaster University where she is currently a third-year resident. Already having a Masters of Public Health degree, Dr. Pritchard will do a one-year fellowship starting in July 2019. Dr. Pritchard has worked in Lao, Libya, Cambodia and Ghana and therefore joins the program with considerable global health experience. She also worked as a paramedic, primarily a critical care flight paramedic, prior to starting medical school and will be working senior resident shifts when she is in Kingston during her fellowship training. Please welcome Dr. Pritchard when she arrives in July!
We’ve had a successful year in the Resuscitation Fellowship thanks to our fellows’ hard work and the dedication of our faculty.

Special thanks to Drs. Steven Brooks, Stephanie Sibley, Dan Howse, David Messenger, Aaron Ruberto, Heather White, Chris Evans, Bob McGraw, Sharleen Hoffe, Andrew Hall, Tim Chaplin, Erin Brennan and Marco Sivilotti for leading sessions this year. From outside our department, we’ve been fortunate to host Drs. Peggy Dejong (cardiology), Anupam Seghal and Bob Connelly (pediatrics), Chris Hicks (U of T EM), Troy and Dr. Gutcher (community EM/anesthesia) who have also presented sessions for the fellows. Finally, special thanks to alumnus Dr. Chantal Forristal (winner of last year’s golden laryngoscope award) who came back from London to teach this year as well.

A few highlights from this year:

- We have partnered with Dr. Peggy DeJong (cardiology Program Director) and have created a new longitudinal joint resuscitation/cardiology mini-curriculum. We trialed these weekly rounds for one block this year and had very positive feedback from fellows in both programs. Building on this success, the plan is to expand these rounds for next year.

- We have transitioned our assessment structure to the entrustment-based platform used in the FRCPC program. Hopefully, this will make post-shift assessment more streamlined and efficient for our faculty group.

- We have been having ongoing discussions with representatives from the school of public health with the goal of putting together a Master’s in Health Research Methods that would be well suited for those resuscitation fellows interested in combining additional research training with their clinical fellowship. The goal is to have something in place within the next couple of years. Keep your ears open for any potential candidates who you think might be interested.
UGME Updates

Armita Rahmani, BSc, MD, CCFP (EM)
Director, Undergraduate Medical Education

The Department of Emergency Medicine continues to be an active participant in Undergraduate Medical Education at Queen’s. This past year, our faculty members have continued to be involved in multiple aspects of UGME including Clinical Skills, Clinical Reasoning, Resuscitation Rounds, Facilitated Small Group Learning and Critical Enquiry. We have also participated in Admissions file reviews and interviews and invigilated OSCE exams for UGME.

Our core interaction with medical students is during their rotation in the emergency department. Clerks continue to rate the EM rotation very highly, and the most consistent feedback is that the desire to have more time and shifts in ER. Several students per year now do their EM rotation at community sites. So far, this has been a great success, and has allowed us a bit more flexibility in scheduling electives.

Last year our department accommodated record numbers of elective students. With demand continuing to be very high, we are always looking for ways to improve our selection to students who are truly interested in Emergency Medicine. To that end, we have instituted a system whereby students will have to submit a letter of interest and a CV in order to be considered for an EM elective.

The coming year is going to see a big shift in how we evaluate the clerks. The CBME process is coming to UGME and in the coming months, the clerk evaluation for Emergency Medicine will become CBME based and on MedTech. Given our ease with this process with the residents, I suspect we will adapt very quickly!

Thank you all for your continued support of the department’s UGME activities.
Simulation Update

Simulation-based learning continues to be a strong thread within our department’s academic mission. We have recently implemented changes in our Junior Resuscitation Rounds that aim to improve the learning experience of our junior residents as well as provide an approach to teaching in the simulation lab for our seniors. Our Senior Resuscitation Rounds, now referred to simply as “Resuscitation Rounds” continue to expand in scope and might even facilitate the new wellness curriculum – stay tuned.

In situ simulation has arrived! We’re currently reviewing feedback from our 2018 trial period and are working to find the right balance of cases to maximize their utility. Thanks for everyone’s patience as we implement these new sessions.

We should all be proud of our simulation-based research activity – several faculty are leading diverse projects that contribute to improving medical education: from the application of cognitive load theory to procedural task acquisition, to assessing the use of ultrasound in a simulated scenario; and from optimizing CPR training, to curricular design and program evaluation, our faculty are leveraging simulation as an investigative methodology!

Finally, myself and Dr. Andrew Hall have created, and are leading, a national group of simulation educators (EM-SERC) with hopes of collaborative inter-institutional projects in the future.

“We’re currently reviewing feedback from our 2018 trial period and are working to find the right balance of cases to maximize their utility.”
2018 was another exceptional year for the Department of Emergency Medicine Research Program. Our researchers continue to show leadership in our core programs of clinical, educational and global health research as evidenced by the impressive list of publications in the index of this annual report. One of the highlights of this past year was the inaugural RJ Brison Research Day. This name change for our annual research day was a long overdue acknowledgement of Rob Brison’s role in establishing and building our research program over the years.

A second highlight to the year was having Susan Bartels win the 2018 Mihran & Mary Basmajian Award for Excellence in Biomedical Research from the Faculty of Health Sciences. The Basmajian Award is awarded annually to the full-time faculty member judged to have made the most meritorious contribution to health research during the previous year or several years. The prestigious award is further recognition of Susan’s leadership and innovation in global public health research.

I encourage you to take some time to read through the publications in this report. They represent a tremendous amount of hard work by members of our research team, as well as the continued support of our entire department to ensure the success of our program.

Susan Bartels won the 2018 Mihran & Mary Basmajian Award for Excellence in Biomedical Research from the Faculty of Health Sciences
Resident Research

This past year has been tremendously busy in our research program.

Our core critical appraisal / clinical reasoning seminar series for first year residents is now in its second year and is flourishing. We recently held a joint session with the Department of Pediatrics, at their request, who view us as leaders in the scholar competency and in teaching evidence-based medicine in residency.

We also had the opportunity to present on this innovative scholar curriculum this past October (2018) at the International Conference on Residency Education (Fostering Evidence-Informed Practice: Combining critical appraisal with clinical reasoning in an innovative scholar curriculum for foundational EM residents; Authors: H Murray, R McGraw, J Caudle, M Walker).

In my new role as Resident Research Director, taking over from Dr. Chris Evans, I have enjoyed seeing the variety of research questions that the residents are interested in exploring. Our next initiatives include working towards peer-reviewed publications of the CAT projects in the Medical Concepts section of CanadiEM and featuring these projects in the Department’s Newsletter over the coming months.

Remember, even if you’re in the contemplation stage of embarking on a research project please reach out to me early – I’m here to help.
RESEARCH

Researcher Profiles

Tim Chaplin

Since joining as faculty five years ago I’ve migrated (happily) towards educational scholarship. Surrounded by great mentors and peers, the energy and enthusiasm for improving medical education has been contagious. Broadly, my research interests lie within simulation-based education and resuscitation medicine, with some quality improvement initiatives sprinkled in.

I’m currently working on (and learning from) several projects:

The Nightmares Course continues to expand and I’m helping to establish similar courses in Saskatchewan, Manitoba, and Calgary. As a result, we are accumulating a large dataset (by educational research standards) that we’re hoping will inform several research questions. Currently, we’re looking at the relationship between resident confidence level and performance both from a quantitative and qualitative perspective.

Dr. Andrew Hall and I (with assistance from Dr. Dan Howes and the Kingston Resuscitation Institute) have put together a national group called EM-SERC (Emergency Medicine Simulation Educators Research Collaborative) that functions as a platform for scholarship related to simulation. Our first project, currently in the process of publication, has representation from all 14 FRCPC-ER training programs. We’re optimistic this group will catalyze further national collaborations.

As you may know, I’ve been working with a group to bring in situ simulation to our ED. As part of this initiative we’re looking at the identification of latent safety threats and subsequent system improvements to mitigate them.

Another ongoing project involves multisource feedback for our trauma team captains. We’re investigating the different perspectives that a multidisciplinary team brings to the assessment as well as the catalytic learning effect that these assessments have (or don’t have… stay tuned).

From my role as Physician Lead on the RACE Team, I’m looking for ways to improve the quality of resuscitation care that we provide at KHSC. Currently, a working group is updating the content and process around our Code Blue documentation in order to capture key quality metrics. The next step is to translate our data in actionable quality improvement strategies.

Lastly, we’re undertaking a chart review that aims to describe both the completion rate and the quality of completion of the “Goals of Care” sheets for inpatients at KGH. This discussion and its documentation is important for several reasons, chiefly because it has the potential to deliver improved patient-centred care.

Overall, I feel very fortunate to be part of such a supportive group that continues to teach me and lead by example.
As a medical education researcher, I’ve always been interested in the development of expertise within training and how we not just assess competency, but promote mastery. Over the last 10+ years, I’ve had a great time being immersed in high-fidelity simulation, whether it be debriefing residents on their resuscitation skills, developing OSCE methodology, creating inter-professional simulation competitions, or exploring how simulation can make us better physicians in the “real” clinical world.

In 2015, competency-based medical education (CBME) thrust me into a challenging role as the CBME Faculty Lead for all 29 specialty programs at Queen’s. It has been quite the whirlwind and last year proved to bear much fruit on the CBME research front with over two dozen abstract presentations, a university award, multiple visiting scholar invitations across Canada & the U.S., and the publication of half a dozen CBME & EM manuscripts (including a book). Looking ahead to 2019, there is a lot of collaborative scholarship in motion with many more manuscripts to come. Below, you’ll find highlights from 5 passion projects that are in-progress:

**Bridging the Gap from CBME Theory to Practice in Canada**
Collaborating with a diverse array of medical education leaders at Queen’s, across Canada, and in the Netherlands over the last 4 years has been a great tutorial for me in Change Leadership. For CBME in particular, there are many common challenges being faced in how to navigate the desired transformation in postgraduate medical education. An analysis of required next steps is the focus from this international group of collaborators.

**Resident Empowerment in Medical Innovation**
Here at Queen’s, the creation and evolution of the CBME resident leader group has been one of the best parts of my job. As the co-chair of this committee, it has been great to see this group of young and talented leaders flourish in the co-creation of CBME alongside our faculty. Not surprisingly, many of them have been recognized nationally and our collaborative authorship group is busy writing our first papers together.

**Assessment, Feedback, and Coaching**
The intersection of these 3 concepts with expert debriefing never gets boring, as I love thinking about competency development and mastery learning. Lucky for me, I’m surrounded by great EM colleagues who feel similarly and want to explore this area. In particular, resuscitation OSCEs, aided by eye tracking technology and dedicated expert debriefing, helps fuel the quest to study how we can become better coaches for our trainees.

**EM Program Evaluation**
Two years into CBME within our EM program at Queen’s, there’s still lots to implement and lots to learn. Are we implementing as intended? Are there unintended consequences? What are the emergent themes and best practices? And how can we adapt our approach? Lots to study. Stay tuned.

**Resurrecting “Doctor as Person” – The Lost CanMeds role**
It can be argued that the pressures of being a physician within the last decade has brought with it tremendous challenges. More work, fewer resources, sicker patients, etc. It should be no surprise that physician health and wellness initiatives have taken on a newfound importance. 20 years ago, the CanMeds role of “Doctor as Person” was left behind. It’s time to formally integrate this role into our consciousness and see where it takes us.
RJ BRISON RESEARCH DAY

Rob is a Full Professor in the departments of Emergency Medicine and Public Health Sciences at Queen’s University @ Kingston. He has been active as a clinician and a researcher in Queen’s Department of Emergency Medicine and as an educator in Queen’s University’s undergraduate and postgraduate medical programs and the graduate program in Public Health Sciences.

He graduated from Queen’s University School of Medicine in 1977. Upon completing four years’ residency training he has been a clinician with Queen’s Emergency Medicine since 1981. In the mid 1980’s he completed his MPH in Epidemiology and Biostatistics at the School of Public Health, University of Washington, Seattle. On returning to Queen’s he began developing a research career to complement his clinical practice.

Rob led the development of research programs in Injury Prevention, Control and Trauma with two primary foci. The first was the development of the Kingston and Region Injury Surveillance program in 1993 in collaboration with Health Canada’s Canadian Hospitals Injury Prevention Program. The second was the development of the Canadian Agricultural Injury Surveillance Program, a
program that tracked all those fatally injured or hospitalized in Canada for an Agricultural related injury. Each of these programs is ongoing and they have resulted in productive collaborations and many publications related to injury prevention. More recent injury research interests relate to the management of soft tissue injuries managed in the emergency department and have been done in collaboration with Queen’s School of Rehabilitation Therapy.

Rob has also collaborated for many years with Dr. Ian Stiell’s research group (Ottawa) in an ongoing program of research on Clinical Decision Rules for application in emergency medicine. This research program has developed clinical tools that are used internationally in clinical Emergency Medicine. This collaboration has seen additional colleagues in Queen’s Department of Emergency Medicine take lead roles in developing and managing these programs of research.

Rob’s research efforts have contributed to over 125 peer reviewed publications. His work has received millions in funding from many sources including CIHR, the Heart and Stroke Foundation, Health Canada and the Public Health Agency of Canada, US Centers for Disease Control, National Institute for Occupational Safety and Health (NIOSH), Agriculture and Agrofood Canada, the Ontario Neurotrauma Foundation and the Ontario Innovation Fund.

He’s enjoyed supervising 18 Masters and PhD student theses and 30 undergraduate medical student research projects, many of which led to publications and most to abstract presentations.

In celebration of Rob’s tremendous accomplishments within the field of research, the Department has launched an annual RJ Brison Research Day. The first and second iterations of this event were a tremendous success, and the department looks forward to this annual research day honouring Dr. Brison.
Department of Emergency Medicine's Research Grants

**Funded**

1. The Development and Evaluation of an Assessment Tool for Competency in Point-of-Care Ultrasound in Emergency Medicine, $6,000.00, Operating, Health Science and Medical Education Research and Innovation Funding Competition, Office of Health and Education Scholarship, 9-2018 / N/A, Conor McKaigney, Hall, A.K., Rang L., Newbigging J.

2. Eye fixation as an objective competency assessment tool for point of care ultrasound, $91,096.00, Operating, SEAMO Innovation Fund Grant, 5-2018 / N/A, Bell C, Hall A.K., Rang L., Szulewski A., McKaigney C.

3. Developing Intelligent, Adaptive Simulation and Operational Support to Augment Trauma Response Readiness, $189,050.00, Operating, IDEAs grant – Innovation for Defence Excellence and Security (IDEaS), Department of National Defence, Government of Canada, 10-2018 / N/A, Paul Hungler, Howes, McLellan, Etemad, Rodenburg

4. Health Education Researcher/ Consultant, $3,015.60, Operating, Kingston Resuscitation Institute, 10-2018 / N/A, Adam Szulewski

5. Capturing the Invisible – Monitoring Physician Cognitive Load and Affect in Real Time During Trauma Response, $5,500.00, Operating, Kingston Resuscitation Institute, 4-2018 / N/A, Adam Szulewski

6. Empatica E4 wristband, $1,450.80, Operating, Kingston Resuscitation Institute, 4-2018 / N/A, Adam Szulewski

7. Nightmares OSCE Self-Reflection Experiment, $2,000.00, Operating, Kingston Resuscitation Institute, 1-2018 / N/A, Adam Szulewski

8. Nightmares Course, $10,000.00, Operating, PGME special purpose grant, Queen's University, 9-2018 / N/A, Tim Chaplin

9. Comparing Multi-Source Competency-Based Assessments In A Simulation-Based Resuscitation Skills Training Program, $5,000.00, Operating, Central Region on Educational Affairs of the Association of American Medical Colleges Award, 8-2018 / N/A, Thoma B, Chaplin T, Egan R, Gu J, McColl T

10. Emergency Medicine In-situ Simulation Program, $4,000.00, Operating, Emergency Medicine Professional Development Fund, 7-2018 / N/A, Tim Chaplin

11. Phase 1a Randomized, Double-Blind, Placebo-Controlled, Multiple-Ascending Dose Study to Assess the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamic Effects of AKB 4924 in Healthy Male Volunteers, $0.00, Operating, Aerpio Pharmaceuticals, 1-2018 / 12-2018, Michael McDonnell

12. Single-Center, Double-Blind, Placebo-Controlled, Single-Dose, 4-Period Crossover, Drug-Alcohol Interaction Study in Lemborexant in Healthy Subjects, $0.00, Operating, Eisai Pharmaceuticals, 1-2018 / 12-2018, Michael McDonnell

13. A Randomized, Double-Blind, Double-Dummy, Active- and Placebo-Controlled, Two-Part, 7-Way Crossover Study to Evaluate the Oral Abuse Potential of Nalbuphine Solution and Extended-Release Intact Tablets Relative to Hydromorphone Solution and Placebo in Non-infected, $0.00, Operating, Trevi Pharmaceuticals, 1-2018 / 12-2018, Michael McDonnell

14. Single-Center, Double-Blind, Placebo-Controlled, Single-Dose, 4-Period Crossover, Drug-Alcohol Interaction Study in Lemborexant in Healthy Subjects, $0.00, Operating, Zogenix Pharmaceuticals, 1-2018 / 10-2018, Michael McDonnell

15. Comparative, Randomized, Single-Dose, 2-Way Crossover Bioavailability Study of TUR-004 and the Reference Formulation in Healthy Adult Subjects Under Fasted Conditions, $0.00, Operating, Turing Pharmaceuticals, 1-2018 / 9-2018, Michael McDonnell

16. A Phase 1, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety, Tolerability, and Pharmacokinetics of Single Ascending Oral Doses of TUR-006 in Healthy Adult Subjects, $0.00, Operating, Vyera Pharmaceuticals, 1-2018 / 9-2018, Michael McDonnell

17. A Phase 1, Randomized, Double-Blind, Placebo-Controlled, Single-Dose, 3-Way Crossover Study to Determine the Abuse Potential and Pharmacokinetics of 80 mg KP415 Prodrug API Compared with 40 mg of d-Methylphenidate API after Intranasal Administration in Healthy Adult Subjects, $0.00, Operating, Kempharm Pharmaceuticals, 1-2018 / 10-2018, Michael McDonnell

18. Educational Research Grant, $4,000.00, Operating, Queen's. Note: I was asked to forfeit this grant because I received two from different committees within the same funding organisation. They asked that I forfeit the lesser of them so that others could be funded as well., 7-2018 / N/A, Jenn Carpenter, Soleas, T

19. Teaching and Learning Enhancement Grant, $6,800.00, Operating, Queen's, 7-2018 / N/A, Jenn Carpenter, Soleas, T

20. Academics without Borders: Mentorship in Management of Advanced women's cancers, $40.00, Operating, Academics without borders, 6-2018 / N/A, Jenn Carpenter and Ayesuga, H.Ayesuga, H. Not: once funded, these projects are managed by Academics without Borders. However I am still involved in an advisory capacity.

21. Medical Education Development Program Grant, $12,500.00, Training, Queens University, 8-2018 / N/A, Damon Dagnone
22. Understanding Pro-Pregnancy Sentiments and Behaviours among Marginalized Female Adolescents, $15,000.00, Training, Queen’s University Dean’s Doctoral Research Award, 9-2018 / N/A, Colleen Davison Sherri Dutton (student)


Publications

Chapters


Complete Books


Editorials


2. Murray HE, Finding FOAM and not Froth, 3-2018, CJEM

Non-Peer-Reviewed Articles

1. Marco L.A. Sivilotti, Physician, take care of thyself, 5-2018, Medical Education in Case Series, Academic Life in Emergency Medicine


Peer-Reviewed Abstracts


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12. Collier A, Bartels S, Messenger DW, Global emergency medicine fellowship: establishing a global EM training program at Queen's University, 5-2018, CJEM

13. Jalan, D., Morakis, H., Arya, N., Carpenter, J, Tcholakov, Y., Hall, T., Cherniak, W., Domestic and International GH Activities in Canadian Family Medicine Programs. 9-2018, abstract presentations at Family Medicine Forum Toronto), PEGASUS Conference (Toronto), WONCA World Conference (Seoul)


15. G Sheahan MBBS, L Chan MPH, E Matzinger, M De Sousa & J Carpenter MD, Addressing the pre-departure training needs of students going on global health placements. 5-2018, Unite for Sight Conference


Peer-Reviewed Articles


36. Oliver T, Murray HE, Review: In minor head trauma, decision rules were sensitive for intracranial findings but CT reduction varied, 12-2018, Annals of Internal Medicine


64. Piccininni C, Michaelson V, Janssen I, Pickett W, Outdoor play and nature connectedness as potential correlates of internalized mental health symptoms among Canadian adolescents. 7-2018, Preventive Medicine, Vol. 112, 168-175.


**Poster Presentations**

1. O’Leary, J., Goumeniouk, N., Potter, D., Gilic, F., Brennan, E.E., Implementing a near-peer, mentorship based educational initiative to develop and maintain effective cardiac resuscitation in medical students, 4-2018, Canadian Conference in Medical Education


3. Kimberly Vella, Adam Szulewski, Andrew Hall, Wilma Hopman, Measuring the effect of case complexity, patient volume and level of training on emergency physician cognitive load., 9-2018, Queens Medical School Poster Showcase

4. Laurel Collings, Adam Szulewski, Andrew Hall, The Correlation of Entrustable Professional; Assessments with Anonymous Faculty Perception of Emergency Medicine Residents; Performance and Competence, 9-2018, Queens Medical School Poster Showcase


7. Venance SL, McKay DW, Blouin D., Canadian medical schools and their curricula: Accreditation and the winds of change, 4-2018, CCME 2018


9. Yeo CT, Ungi T, Moult E, Sargent D, McGraw R, Fichtinger G., Augmented reality assistance in training needle insertions of different levels of difficulty, 2-2018, SPIE Medical Imaging

14. Natasha Goumeniouk, BSc; Joseph Newbigging, MD, BScH; Michael McDonnell, MD; Marco Sivilotti, MD, MSc Department of Emergency Medicine, Queen's University, Kingston ON, Evaluation of a novel device for non-invasive CVP measurement, 5-2018, CAEP 2018, Calgary
17. Hall AK, Rich J, Dagnone JD, Weersink K, Caudle J, Sherbino J, Frank JR, Bandiera G, Van Melle E, Implementing CBME in emergency medicine: lessons learned from the first 6 months of transition at Queen’s University, 5-2018, CAEP 2018
18. Korpal D, Bartels SA, Purkey E, Kingston emergency department utilization of adults who have experienced adverse childhood experiences, 6-2018, Canadian Association of Emergency Physicians annual conference
21. Jena Hall, Damon DagNONE, Ross Walker, Laura McEwen, Rylan Egan, Richard van Wylick, Denise Stockley, Leslie Flynn, Engaging Resident Leaders in the Implementation of Competency based Medical Education at Queen’s University, 4-2018, Canadian Conference on Medical Education
25. Subedi S, Davison CM, Bartels S, Emotion and Physical Child Abuse in the Aftermath of the 2010 Haiti Earthquake, 6-2018, Queen’s University Faculty of Health Sciences Student Research Day

Technical Reports
1. Blouin D., Prevalent organizational culture types of Canadian Medical Schools., 8-2018, Accreditation in Health Professions Summit
2. Blouin D., Providing added value to undergraduate medical education programs., 8-2018, Accreditation in Health Professions Summit
3. Blouin D., Have Canadian medical schools developed a culture of continuing quality improvement?, 4-2018, CCME 2018
5. Venance SL, McKay DW, Blouin D., Canadian medical schools and their curricula: Accreditation and the winds of change, 4-2018, CCME 2018
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