



MCMaster EDUCATION RESEARCH, INNOVATION & THEORY

# 2023 Annual Report



# Table of Contents

|  |    |   |    |
|--|----|---|----|
| <b>Welcome from the Assistant Dean</b> | 2  | <b>Our Activities</b>                               |    |
| <b>Our Community</b>                   |    | MERIT Rounds  | 30 |
| Scientists                             | 3  | MERIT thinkTank                                     | 31 |
| Adjunct Scientists                     | 11 | Lunch & a Lab Meeting                               | 32 |
| Scholars                               | 13 | Norman Education Research Day                       | 33 |
| Members                                | 19 | PSI Visiting Scholars Event                         | 34 |
| Staff                                  | 20 | Rethink Clinical Reasoning Conference               | 35 |
| MERIT Membership                       | 21 | Health Professions Education Research (HPER) Course | 37 |
| <b>Year in Review</b>                  |    | Undergraduate Medical Education Research Elective   | 37 |
| Awards & Honours                       | 22 | MERIT Maps  | 38 |
| Active Grants                          | 23 | The Library   | 38 |
| Presentations                          | 25 | Good Practices in Education Podcast                 | 39 |
| MERIT Social Media                     | 27 | Navigating Ethics in Education Scholarship Workshop | 39 |
| MERIT Strategic Consultation           | 29 | Sibley Lecture                                      | 40 |
|  |    | Sibley Award  | 41 |
|  |    | Health Professions Educator Award                   | 42 |
|  |    | Education Scholarship Fund                          | 43 |
|  |    | MERIT Faculty Fellowship                            | 44 |
|  |    | MERIT - HSED Fellowship                             | 45 |
|  |    | MERIT Visiting Professor                            | 46 |
|  |    | MERIT Visiting Scholar                              | 47 |
|  |    | <b>Papers &amp; Publications</b>                    | 48 |



## MESSAGE FROM THE ASSISTANT DEAN

---



**Jonathan Sherbino**

As 2023 draws to a close, the MERIT annual report serves to remind us of the successes and initiatives of our community. In these pages you will discover the incredible research and innovation from our education scientists, who have presented and collaborated nationally and internationally.

Our inaugural MERIT Faculty Fellowship was completed by X. Catherine Tong (Waterloo Regional Campus, Family Medicine). We welcomed Quang Ngo (Pediatrics) and Greg Spadoni (Rehabilitation Sciences) into the fellowship program in early 2023. Jasmin Dhanoa joined our community as a MERIT-HSED graduate fellow, under the supervision of Elif Bilgic. Finally, Young-Min Kim from the Catholic University Korea engaged in research with MERIT scientists during the fall as a Visiting Scholar.

Our community excitedly celebrated Teresa Chan's appointment as the inaugural dean of the School of Medicine, Toronto Metropolitan University. Teresa remains an adjunct scientist with MERIT, growing our connections in the health professions community.

Finally, MERIT is transitioning to become a research centre. For most of us, this change in academic designation will have little effect on MERIT regular collaborations and events. The transition to research centre will strengthen our recognition by the larger McMaster community.

The strategic consultation with the Faculty of Health Sciences, completed in early 2023, validated the mission of MERIT.

1. MERIT scientists produce world-class education research;
2. MERIT fosters a community of practice for faculty interested in education scholarship; and
3. MERIT collaborates on education problems within the Faculty of Health Sciences, providing expertise on education theory and evidence.

I am grateful to be part of this community, to be challenged and encouraged as an education scholar. I hope that your experience within this community is equally encouraging and welcoming.

## SCIENTISTS

---



**Anita Acai, PhD**  
Assistant Professor, Psychiatry and  
Behavioural Neurosciences

Dr. Anita Acai is an Education Scientist at St. Joseph's Education Research Centre (SERC), St. Joseph's Healthcare Hamilton. She holds a faculty appointment as an Assistant Professor in the Department of Psychiatry and Behavioural Neurosciences at McMaster University and is a Scientist with the McMaster Education Research, Innovation and Theory (MERIT) Program. Dr. Acai obtained her PhD in Psychology from McMaster University in 2021. Her interdisciplinary research program involves using education as a tool to address pressing health challenges. One of her current focuses is understanding and improving equity and wellbeing in our health systems. She also conducts research in the areas of competency-based medical education, including assessment; learner-centered pedagogies; and the scholarship of teaching and learning.

In July 2023, Dr. Acai joined the newly formed SERC within St. Joseph's Education Research Centre as an Education Scientist. The mission of SERC is to advance hospital-based education research, positioning St. Joseph's Healthcare Hamilton as a leader in education and education scholarship. In her new role, Dr. Acai has expanded her research projects and collaborations in new directions, contributing to capacity building in education research within and beyond the hospital. For example, Dr. Acai is collaborating with researchers from Surgery on a project related to creativity in medicine, as well as exploring human-robot teaming with other education scientists, engineers, and surgeons. She is also excited to establish new collaborations with nursing staff and researchers at St. Joe's and the McMaster University School of Nursing.

Dr. Acai continues to maintain her research interests in equity and wellbeing as they intersect with health professions education, as well as in competency-based medical education. For example, this year, she began co-supervising Master's student Marina Boutros Salama (Health Science Education Program) alongside Dr. Catharine Munn. Together with Marina, Dr. Munn, and Dr. Enas el Gouhary, Dr. Acai is part of a dynamic team investigating the impacts of residency and fellowship training on residents' and fellows' intimate partner relationships. This project has received funding from various sources, including a Medical Education Research Grant from the Royal College of Physicians and Surgeons of Canada.

# SCIENTISTS

---



**Elif Bilgic, PhD**  
Assistant Professor, Pediatrics

Dr. Elif Bilgic is an Assistant Professor and Education Scientist in the Department of Pediatrics and MERIT program. She received her PhD from McGill University in Surgical Education, and completed 2 postdoctoral fellowships at McGill; one at the Steinberg Centre for Simulation and Interactive Learning, and other at the Simulation, Affect, Innovation, Learning, and Surgery Lab, the second fellowship as a Canadian Institutes of Health Research (CIHR) awarded fellow. Additionally, at the end of her PhD, she was awarded a Royal College of Physicians and Surgeons of Canada - Medical Education Research Grant (RC-MERG, 2018) for her research in developing a curriculum to teach and assess advanced laparoscopic suturing skills, taking first steps in the development of an advanced laparoscopic surgery program.

Currently, Dr. Bilgic's program of research is in the field of performance assessment in the simulation and clinical settings, focusing on technology, innovation, and collaboration, ensuring that trainees are gaining the necessary skills to provide the best patient care possible.

Dr. Bilgic was awarded a Social Sciences and Humanities Research Council (SSHRC) Partnership Engage Grant (2023) with co-applicants/collaborators from 4 institutions across Canada and partnership with a private business enterprise (MedVR Education), for her work titled 'Exploring the Role of Virtual Reality to Support New Training and Assessment Mandates in Medical Education'. The goal of this study is to explore the use of immersive virtual reality in an EPA training/assessment context, which could be a practical and educationally relevant alternative to clinical and in-person simulation contexts.

Additionally, Dr. Bilgic was awarded a Royal College Medical Education Research Grant (2023) with co-applicants Drs. Quang Ngo and Jonathan Duff for her work titled 'Defining the Key Abilities Required to Perform in Challenging Pediatrics Procedures'. With procedural skills being an important part of patient care in pediatrics, and with evolving changes in practice routines of pediatricians, there continue to be changes in the needs of trainees when it comes to procedural skills training. Additionally, certain procedural skills are often challenging for residents to gain competence given their relative low frequency. Therefore, this project aims at understanding what makes certain procedures or parts of procedures challenging, to then explore the types of educational interventions, including use of simulation, that could be used to train residents on the identified key skills.

Finally, Dr. Bilgic received a SSHRC Insight Development Grant (2022) with co-applicant Dr. Jason M Harley, and collaborators Drs. Jonathan Sherbino and Ereny Bassilious, for her work titled 'How are emotions of medical trainees and faculty impacted by new assessment mandates implemented in medical education?'. The ultimate goal of this study is to provide education and Competence by Design (CBD) leads with concrete evidence and guidance in understanding and addressing the unique psychological challenges that trainees and faculty are facing with the entrustable professional activity (EPA) assessment mandates, and their long-term effect in trainee's beliefs about successfully completing their medical training.

# SCIENTISTS

---



**Lawrence Grierson, PhD**  
Associate Professor, Family Medicine

Dr. Lawrence Grierson is Associate Professor with the Department of Family Medicine at McMaster University and an Education Scientist with the McMaster Faculty of Health Sciences' Program for Educational Research, Innovation, and Theory (MERIT) at McMaster University, appointments through which he leads a variety of research pertaining to Health Professions Education. He obtained his PhD in Kinesiology at McMaster University before completing a postdoctoral fellowship at the University of Toronto. Lawrence serves as Assistant Dean of McMaster's Health Science Education Graduate Program and is on the CFPC's Education Reform Taskforce. Lawrence leads the FSG Med Ed Lab ([www.fsgmededlab.com](http://www.fsgmededlab.com)) through which he supports postdoctoral fellows, doctoral trainees, masters and undergraduate thesis students, and a compliment of research staff as they collaborate on a wide array of research concerned with education for primary care, admissions, education data capacity, and the acquisition of precision technical skills.

Among Lawrence's most relevant scholarship is work establishing the foundation for big education data platforms for the longitudinal appraisal of medical education metrics collated across physicians' learning trajectory, from medical school into practice. This work began with examinations of the factors that influence the policy intervention of matriculating International Medical Graduates (physicians trained abroad) into Canadian residency programs with the ultimate goal of improving physician distribution in Canada and continues with provincial collaborative work aimed at determining the admissions and training factors associated with trainee performance on the national licensure examinations. This research has continued to grow, and Lawrence has lead national and international groups of training institutions, data stewards, regulatory authorities, medical education researchers, and student and resident organizations in the development of jurisdictionally-relevant consensus statements for the ethical conduct of inter-institutional data-driven medical education research. This work is supported through funding provided by the Social Sciences and Humanities Research Council, Digital Research Alliance of Canada, and Compute Ontario.

Dr. Grierson is also active in research that considers the way in which medical training and credentialing influences the delivery of continuous, comprehensive, and community-adaptive family medicine across the country. This research explores the impact that the Certificates of Added Competence program has on family medicine delivery in Canada; the relationships between family physicians' geographic disposition before medical school, during training, and when in independent practice; the processes and mechanisms that support the development of team-based primary care; and family physician experiences of moral distress. Most notably, Lawrence currently serves as the lead education policy consultant supporting current work to expand Canadian postgraduate family medicine training. This work is supported by funding from the Academic Family Medicine Associates of Hamilton, College of Family Physicians of Canada, and the Canadian Institutes for Health Research.

# SCIENTISTS

---



**Renate Kahlke, PhD**  
Assistant Professor, Medicine

Dr. Renate Kahlke is a researcher, qualitative methodologist, theorist, and educator. After working in curriculum design and faculty development for interprofessional education and simulation at the University of Alberta, she earned a PhD in Educational Policy Studies there in 2016. She then completed a postdoctoral fellowship at the Centre for Health Education Scholarship at the University of British Columbia in 2018. She previously led program evaluation and research as a Research Associate at the Royal College of Physicians and Surgeons of Canada. In May 2021, Renate joined the Department of Medicine and MERIT as Assistant Professor and Scientist. She continues to hold an appointment as Adjunct Professor in the Department of Innovation in Medical Education at the University of Ottawa.

Currently, Renate is developing a program of research that uses a range of qualitative methods to explore how social and systemic pressures influence health professionals' and trainees' decisions, and how these factors may prevent them from doing what they think is best. This research is currently focused on two spaces in which these issues often occur. First, she examines moments when trainees' sense of agency is compromised in their clinical learning and work. She was recently funded by the Social Sciences and Humanities Research Council (SSHRC) to lead a longitudinal study across four institutions (McMaster University, University of British Columbia, University of Ottawa, and Western University) to identify social and systemic factors that impact racialized trainees' sense of agency when they encounter interpersonal or systemic racism. This study uses constructivist grounded theory, and will generate data through solicited diaries and interviews with racialized trainees as they progress through two years of their education.

Second, Renate's research looks at moments when practicing health professionals struggle to make change based on their learning in clinical settings. She is co-PI on a study with Dr. Meghan McConnell that examines learning among physicians when they conduct workplace-based assessments for trainees, funded by the Royal College of Physicians and Surgeons of Canada. This study is part of a larger investigation of the micro-learning that might occur in daily practice, and the features of clinical environments and interactions that facilitate or inhibit learning and practice change. This study also uses Constructivist Grounded Theory and a combination of interviews and observations to generate rich data on under-explored aspects of learning in clinical practice.

Influences on decision-making are often subtle and difficult for research participants to identify or articulate, particularly when their decisions are not aligned with what they feel is best. To support investigation of these difficult-to-articulate issues, a branch of Renate's work focusses on advancing methodological innovation, theory development, and meta-research. As an example, she is currently leading a large-scale integrative review focused on innovative interview elicitation techniques – or the use of artefacts such as drawings, photography, diaries, or maps to prompt participants to think and talk about a topic in new ways. The review compiles techniques from a broad range of disciplines – from anthropology to psychology – with the goal of improving participant engagement and data quality in qualitative interviews.

## SCIENTISTS

---



**Sandra Monteiro, PhD**  
Associate Professor, Medicine

Dr. Sandra Monteiro is a Faculty of Health Sciences MERIT Scientist appointed to the Department of Medicine, Division of Education and Innovation. Sandra has a second appointment to the Centre for Simulation Based Learning as the Director, Scholarship. Sandra is committed to the development of ethical and values based research that offers practical solutions to many of medical education's wicked problems.

Sandra received her PhD in Psychology from McMaster University in 2013 and applies a cognitive and behavioural science lens to translate theory and evidence to advance education and research design. As an educator and advisor to health professionals, Sandra shares her expertise in measurement to guide data analysis and research objectives. She has mentored nearly 100 learners, including graduate students, medical students, residents and junior faculty, on the pursuit of their research goals. In 2020, Sandra received the Excellence in Graduate Student Supervision Award from the Faculty of Health Science. In 2021, she received the Meridith Marks New Educator Award.

Sandra has established a successful international collaboration investigating theoretical models of cognitive processes behind clinical reasoning with application for education and assessment. In 2023 she was awarded a KIPRIME fellowship as recognition of her contribution to medical education. Sandra is currently expanding her research focus to translate evidence into strategies that address inequity in healthcare and medical education. Her dedication to equity is clear through her advocacy for fair and equitable evaluations of junior faculty and learners.



## SCIENTISTS

---



### **Geoffrey Norman, PhD** Professor Emeritus, Health Research Methods, Evidence and Impact

Dr. Geoffrey Norman is Professor Emeritus of the Department of Health Research Methods, Evidence and Impact (formerly the Department of Clinical Epidemiology and Biostatistics). He has been involved with MERIT since 1971, first as a research associate (1971-1976) and then as a professor/scientist (1977-present). Geoff received a BSc in physics from the University of Manitoba in 1965, a PhD in nuclear physics from McMaster University in 1971, and a Masters in educational psychology from Michigan State University in 1977. Geoff has held an appointment at the Ontario Institute for Studies in Education since 1992 and has been an associate member of McMaster's Department of Psychology, Neurosciences and Behaviour since 1994.

Dr. Norman has received many honours and awards over the course of his career, including an Induction into Community of Excellence (McMaster, 2017), the President's Award for Excellence in Graduate Supervision (McMaster, 2013), the John Ready Award for Innovation (Association of Faculties of Medicine of Canada, 2012), Querido Visiting Professorship from Erasmus University, Rotterdam (2012), an honorary degree from Erasmus University (2010), the Karolinska Award for Research in Medical Education (2008), and the Award for Outstanding Contribution to Assessment of Clinical Competence (Medical Council of Canada, 2001). In addition, he also held a Canada Research Chair from 2001 to 2014.

Geoff's long-standing interest is in cognitive psychology, particularly as it applies to clinical reasoning, learning, and decision-making. Geoff has particular expertise in statistics and measurement and has authored several popular books in this area with David Streiner. He has taught these subjects for many years at the undergraduate and postgraduate level and has published more than 300 journal articles on these topics. Recent investigations have expanded into two areas: 1) the role of computerized decision support systems; and 2) visual diagnosis at extremely brief times in radiology and electrocardiography. Another recent area of interest is the role of simulation in learning and assessment in areas ranging from anatomy learning to critical care decision making.

Since 2017, McMaster's Faculty of Health Sciences has organized the Norman Education Research Day. This yearly event, named after Dr. Norman, is dedicated to celebrating the rich history and future of Health Professions Education research and scholarship across the Faculty of Health Sciences and McMaster University.

# SCIENTISTS

---



**Jonathan Sherbino, MD**  
Professor, Medicine

Dr. Sherbino is the assistant dean of MERIT. He is an emergency physician and professor in the Department of Medicine. Jonathan is the past chair of the Royal College Emergency Medicine Specialty Committee, the co-editor of CanMEDS 2015 Framework, and co-founder of the Royal College Area of Focused Competence – Clinician Educator program. Jonathan is an award-winning teacher and educator, including recognition from the Society for Teaching & Learning in Higher Education as a 3M Fellow and via fellowship in the Academy of Medical Educators (United Kingdom). As an education scholar Dr. Sherbino has nearly 200 publications and nearly 15,000 citations. Jonathan has presented his work more than 250 times, including plenaries at international conferences.

The collaborative research program in clinical reasoning (with Sandra Monteiro, Matt Sibbald and Geoff Norman) continues. A study concluded in partnership with the Medical Council of Canada demonstrated that an artificial intelligence diagnosis app can be successfully incorporated into online testing of clinical reasoning.

In collaboration with faculty from the Department of Psychology, Neuroscience & Behaviour, an experiment, using a fully immersive simulator, tested the effectiveness of learning when driving and listening to podcasts. In both low and high distraction driving environments learning was not impaired when compared to listening while seated in a no distraction environment.

A multi-institution, randomized clinical trial was published evaluating mastery learning with deliberate feedback to teach a surgical airway technique. This study demonstrated that mastery learning (when compared to unstructured practice) improved skill performance time.

Finally, a large single study examined the prevalence of imposter phenomenon among a diverse sample of physicians in-training. The largest study to date on this issue demonstrated a high prevalence of imposter phenomenon among all clinical disciplines regardless of most other demographic factors.

## SCIENTISTS

---



**Matthew Sibbald, MD, PhD**  
Associate Professor, Medicine

Dr. Matt Sibbald is a clinician scientist at MERIT with interests in simulation-based education, competency-based education, professional identity formation, and the use of artificial intelligence in medical education. He is an Associate Professor of Medicine, McMaster University and Interventional cardiologist at Hamilton Health Sciences and Niagara Health System. Matt graduated from the University of Toronto with an MD in 2004, completing residencies in internal medicine (2008), cardiology (2011) and fellowship in Interventional Cardiology (2013). Matt holds a Master's in Health Professions Education in 2011 and a PhD in 2013 – both from Maastricht University, Netherlands. He is currently the Associate Dean of Undergraduate Medical Education, Cardiology Residency Program Director, and Chair of the AFC Committee for Intervention Cardiology at the Royal College of Physicians and Surgeons of Canada.

Over the past year, Dr. Sibbald has led a number of studies on professional identity formation (PIF). Work done to understand the role of the COVID-19 pandemic around undergraduate learner identity formation was presented at the annual Geoff Norman Education Research Day by undergraduate MD student, Maham Rehman. A second project understanding the role of competency based medical education on PIF of postgraduate learners was presented by cardiologist and intensive care fellow, Justin Chow. Matt continues to work to understand the role of PIF in professionalism, with ongoing scoping review works around the overlap between professionalism and transformative learning, as well as the overlap between professionalism and inclusion. Funded work by a Faculty of Health Sciences grant continues around understanding how learner professionalism concerns are addressed, using a transformative learning lens.

Dr. Sibbald continues to work with Dr. Arden Azim, funded by a Royal College grant to understand the intersection between interprofessional education and postgraduate education frameworks. This three part project is in its final phase, with manuscripts around the relationship between the Canadian Interprofessional Competencies and CanMEDS frameworks, survey of program directors and qualitative study understanding where interprofessional education occurs within postgraduate education.

A final area of research focuses on artificial intelligence in medical education. Early work explored the performance of ChatGPT on formative and summative assessments, with recent publication: <https://doi.org/10.1177/23821205231204178>.

Dr. Sibbald continues to mentor trainees and faculty members studying simulation based education, competency based education, interprofessional education, and clinical reasoning.

## ADJUNCT SCIENTISTS

---



**Teresa Chan, MD**  
Associate Clinical Professor (part time),  
Medicine

Teresa Chan was appointed as a MERIT Clinician Scientist in July 2021, and transitioned to an Adjunct Scientist role in 2023. She is an associate clinical professor (part time) within the Department of Medicine's Division of Emergency Medicine and is also cross appointed to the new Division of Education & Innovation. In July 2023, she became the Founding Dean and Inaugural Vice President of Medical Affairs at the new Toronto Metropolitan University where she is also their first associate clinical professor.

Teresa received her Masters of Health Professions Education from the University of Illinois at Chicago (UIC). Currently, Teresa is the Associate Dean, Continuing Professional Development. She previously was the Assistant Dean, Program for Faculty Development in the Faculty of Health Sciences at McMaster from 2019-2021. In 2021 she completed her term as the Director of the Royal College Clinician Educator Area of Focused Competency Diploma program but will continue to serve as the AFC's specialty committee chair at the national level until 2023. Dr. Chan serves on the editorial boards of several important health professions education journals including: Academic Medicine, Journal of Graduate Medical Education, and Perspectives on Medical Education. Dr. Chan is well known for her education research and innovation. She is a principal investigator in the METRIQ Study Group.

Dr. Chan has also recently helped to co-found the Games As Medical Education Research (GAMER) Collaborative, which seeks to advance the theory, innovation, and science behind using game-based learning. This year she received a PSI Foundation Grant to explore the nature of Talent in Medical Education, alongside co-investigators including Matthew Sibbald and Jonathan Sherbino.

Dr. Chan continues to work with Postdoctoral Fellow Dr. Yusuf Yilmaz to explore the intersections of leadership education and continuing professional development. Dr. Yilmaz is working with two non-profit organizations (Canadian Health Leadership Network and LEADS Global).

## ADJUNCT SCIENTISTS

---



**Ranil Sonnadara, PhD**  
Associate Professor, Surgery

As Director of the Office of Education Science for the Department of Surgery, Dr. Sonnadara's mandate is to integrate recent advances and best practices in education science into surgical curricula whilst training the next generation of surgical educators. This includes overseeing the transition to the new Competence By Design Curriculum for all surgical programs. Ranil is also a Faculty Affiliate with the Vector Institute for Artificial Intelligence, a member of the Schools of Computational Science and Engineering and Biomedical Engineering, and is an Adjunct Scientist with MERIT. Ranil also serves as the Creative Director for McMaster's LIVELab, and is currently appointed as the President, Chief Research Officer and CEO for Compute Ontario.

Musculoskeletal medicine in undergraduate medical education:

Musculoskeletal conditions are extremely common in the general population and are frequently seen by physicians in their day-to-day practice. Despite the relevance of musculoskeletal education for medical practice, ongoing research suggests that medical students are not receiving the training they need to manage musculoskeletal conditions after they graduate. To better understand the current gaps and design sustainable solutions, we assessed the musculoskeletal curriculum at the DeGroot School of Medicine. Based on the strengths and weaknesses of the curriculum identified, an online learning tool was developed for students to use during their clinical rotation in orthopedic surgery through a survey and MSK knowledge assessments. The results of the evaluation demonstrate that the learning tool holds promise in helping students to learn about musculoskeletal medicine.

# SCHOLARS

---



**Ellen Amster, PhD**  
Associate Professor,  
Family Medicine & Religious Studies

Dr. Amster is the Jason A. Hannah Chair in the History of Medicine and a historian of the Islamic world, France, and medicine. She has been a Fulbright scholar, a Chateaubriand scholar of the French government (1998) and received her Ph.D. in history from the University of Pennsylvania (2003). She has been a simultaneous translator for an ORBIS ocular surgery mission in Morocco, a researcher at the Institut National d'Hygiène du Maroc, and created an interdisciplinary determinants of health field study program for students to travel to Morocco. At McMaster, she also developed the [History of Medicine and Medical Humanities Research Portal](#) for all students to use, with grants, libraries, archives, museums, digital exhibits, digital collections, conference information, and images collections.

Her 2013 book, [Medicine and the Saints: Science, Islam, and the Colonial Encounter in Morocco, 1877-1956](#) is an interdisciplinary study of health, healing, and the body in Morocco, based in fifteen years of research in Arabic manuscripts, French colonial and medical archives, and field interviews with Moroccan physicians, nurses, patients, midwives, and leaders of NGOs. She has served on the United States IIE Fulbright national screening committee for Morocco, Tunisia, and the Gulf States (2010-2013), and is currently on the Board of Directors for a Cambridge University Press book series. Currently she is researching maternal and infant health in Morocco and has received a SSHRC for a new project, "The Other is Me: Transvestism, Hybridity, and Cosmopolitanism in Colonial and Postcolonial North Africa."

She is jointly appointed in Religious Studies and the Department of Family Medicine in the Faculty of Health Sciences and supports students in both faculties.



**Ilana Bayer, PhD**  
Assistant Professor,  
Pathology and Molecular Medicine

Dr. Ilana Bayer is an Assistant Professor in the Department of Pathology & Molecular Medicine and the Director of the Learning Technologies Lab (LTL) in the Continuing Professional Development (CPD) Office at McMaster University. In her LTL Director role, Dr. Bayer acts as the education scholarship lead for education technology-related activities and research for the CPD office and supports faculty development and research around the use of electronic modalities in health sciences and health professions education. She has led and worked on numerous development and research projects as well as curricula that have involved the use of technology. She teaches in multiple programs (undergraduate, graduate, faculty development) and in a variety of learning environments (face-to-face, blended, online). Her research interests include education technologies, education design, program evaluation, user experience and anatomy education.

# SCHOLARS

---



**Daniel Brandt Vegas, MD**  
Associate Professor,  
General Internal Medicine

Dr. Daniel Brandt Vegas is a Clinician Educator in the Department of Medicine at McMaster University. He received his MHPE from the University of Illinois at Chicago, and is currently focused on developing a novel program evaluation strategy for post-graduate medical education programs to increase the amount and quality of data gathered and enable advanced analyses to inform goal focused, achievable program specific strategic plans. He is the deputy program director for the Clinician Educator AFC diploma program at McMaster University. His other interests are systems improvement, end of life care, and clinical reasoning. Daniel is mainly focused on the interface between clinical practice and medical education scholarship, and the tension that exists between the pressing urgency of the clinical world and the growing body of science in different areas of medical education. Daniel's role as a Clinician Educator, and world view in general, are largely informed by his erratic background in life, making his way from his native Venezuela, eventually zig-zagging up to McMaster. Daniel strongly believes in language, in a broad sense. This is often the source of arguments, but also many interesting conversations.



**Deepak Dath, MD**  
Professor, Surgery

Dr Deepak Dath is a professor of surgery at McMaster University. His current educational projects include research on validating a simple tool to measure the quality of educational materials and understanding how medical students decide to choose a career in general surgery. His main focus is in leadership in education. Dr. Dath is co-founder of the TISLEP leadership summit and the sanokundu (<https://www.sanokundu.com>) group of educators who aim to make leadership education accessible to physician trainees and training programs worldwide. He is a faculty of the CLIME (Canadian Leadership in Medical Education) course and the co-chair of developing CLIME II. Dr. Dath is working to develop value based or character based leadership training.



**Jasmin Dhanoa, BSc (hons), MSc (c)**  
HSED/MERIT Graduate Fellow,  
Health Science Education Graduate Program

Jasmin is a recent graduate of the Honours Life Sciences program at McMaster University. A significant part of Jasmin's undergraduate education has included teaching and learning through teaching assistantships, peer tutoring, and working as an educational research assistant at the MacPherson Institute. During her final year in undergrad, Jasmin investigated equitable access to learning opportunities in large enrollment programs and facilitated the Institutional Quality Assurance Process (IQAP) for the Life Sciences program. As a recipient of the MERIT-HSED fellowship award, Jasmin will be pursuing a Master's Degree in the Health Science Education program with an interest in researching expertise in procedural medical skills.

## SCHOLARS

---



**Farah Hasan, BSc (hons), MSc (c)**  
Former HSED/MERIT Graduate Fellow  
Health Science Education Graduate Program

Farah Hasan completed her BSc in Biology and Psychology, Neuroscience and Behaviour, and is currently pursuing her MSc in Health Science Education at McMaster University. For her graduate thesis, she is evaluating the efficacy of a clinical virtual reality module for anatomy education under the supervision of Dr. Ranil Sonnadara and in collaboration with Dr. Bruce Wainman. Her work is focused on the impact of learning environment, modality, workload, cybersickness, and user engagement on knowledge acquisition. In the community, Farah sits on the Expert Advisory Board at Project Sleep and is a speaker with their Rising Voices program, where she works to improve public understanding of sleep disorders, and shares insights from her own experience as a patient and advocate.



**Leslie Martin, MD**  
Assistant Professor,  
General Internal Medicine

Dr. Leslie Martin is an Assistant Professor with the Department of Medicine, within the Division of General Internal Medicine. She completed a Masters in Health Professions Education at Maastricht University. Dr. Martin is the Program Director for the Internal Medicine Residency Program. She is involved in the McMaster University Clinician Educator Program as a Unit Supervisor. Her research interests include applying qualitative methodology to explore workplace-based learning in postgraduate medical education during the era of competency-based medical education (CBME). She has been involved in the design, implementation and now evaluation of the CBME for the Internal Medicine Residency Program at McMaster University. Lastly, she has a clinical focus on caring for people who use drugs, and is the outgoing Co-Lead of the Inpatient Addictions Medicine Service at St. Joseph's Healthcare Hamilton and Hamilton Health Sciences.



**Monica Molinaro, PhD**  
Assistant Professor, Institute of Health Sciences  
Education, McGill University

Previously, Professor Molinaro was a Banting Postdoctoral Fellow in the Department of Family Medicine at McMaster University, where she was also an instructor in the Bachelor of Health Sciences Undergraduate program. She completed her PhD in Health and Rehabilitation Sciences at the University of Western Ontario, where she conducted a critical narrative analysis on pediatric oncology nurses' stories of moral distress, and worked as a research associate at the Centre for Education Research and Innovation (CERI). Building upon her expertise in using narrative methodologies to examine experiences of moral distress, Professor Molinaro uses a variety of qualitative critical and interpretive methodologies to provide understandings of how moral distress, as a result of institutional and provincial policy, has bearing on health outcomes, future health care delivery, and staff well-being. Additionally, her work aims to draw attention to how the sharing of narratives may act as a form of collective support and resistance for health care workers, reduce the distance between other health care providers, their management, and policy makers, and catalyze changes in medical education about how to best prepare learners for the realities of practice and future events that strain the healthcare system.



## SCHOLARS

---



**Anjali Menezes, MBBS**  
Assistant Clinical Professor (Adjunct)  
Family Medicine

Dr. Anjali Menezes is a family physician with special interests in trauma-informed care, medical education, and racism in medical training. Her career thus far is an eclectic mix of clinical work, teaching, mentoring, research, scholarly work and community activism. Her current focus is on studying racial differentials in attainment. In 2020, as a family medicine resident at McMaster, she co-founded and served as chair of Racialized Residents at McMaster peer support network, followed by an enhanced skills PGY3 year at Western University in Academic Family Medicine, where she focused on deepening her understanding of racial identity formation and racism in medical education.

In 2021, she created and currently leads the Differential Attainment REsearch (DARe) Group Collaborative: a growing Canadian national network of exclusively racialized academics studying and addressing the racial attainment gap in medical and health professional training and career outcomes. A group that now exceeds 30, their philosophy is that we must begin first and foremost with building community. Only then can we co-imagine and co-create a vision for a brighter, more equitable world. The DARe Group has delivered faculty development workshops and talks at faculties and conferences across Ontario and North America and are currently leading the implementation and evaluation of a racialized mentorship network for medical learners in the Faculty of Health Sciences.



**Som Mukherjee, MD**  
Associate Professor,  
Oncology

Dr. Som Mukherjee is an Associate Professor in the Department of Oncology, Division of Medical Oncology at McMaster University. He completed a two year oncology research fellowship combined with a Masters in Health Research Methodology at McMaster University. He recently completed a 9+ year term as program director for the McMaster medical oncology residency training program and a 2 year term as national program director subcommittee chair for the Royal College of Physicians and Surgeons Medical Oncology Specialty Committee. His research interests in education include evaluation of resident wellness programs, assessment of teaching using electronic modules for resident education, integration of entrustable professional activity (EPA) assessments within objective structure clinical skills examinations (OSCE) and evaluating various aspects of new competency based medical education (CBME) programs within existing residency training programs. His clinical areas of interest include the management of patients with breast and genitourinary malignancies.

## SCHOLARS

---



**Quang Ngo, MD**  
Associate Professor,  
Pediatrics

Dr. Quang Ngo is an Associate Professor and clinician educator in the Department of Pediatrics at McMaster University and a practicing pediatric emergency medicine physician at McMaster Children's Hospital. He is the founding program director for the Pediatric Emergency Medicine subspecialty residency program at McMaster University and chair of assessment with the DeGroot School of Medicine. He has previously served as the associate and interim program director for the core Pediatrics program at McMaster University and is core faculty in the Clinician Educator Area of Focused Competence at McMaster University. He is currently completing his Masters of Health Professions Education at the University of Illinois at Chicago. His educational and scholarly interests are in simulation based assessment, teaching and feedback, and he has given talks and workshops nationally and internationally on these topics.



**Alison Scholes, BSc (hons), MSc (c)**  
HSED/MERIT Graduate Fellow,  
Health Science Education Graduate Program

Alison is a current MSc student in the Health Science Education (HSED) program at McMaster University. Alison graduated from Queen's University in 2022, where she received a BSc (Hons) with a major in Life Sciences. During her undergraduate studies, Alison's work as a research assistant at Brantford General Hospital and involvement with the 3 Wishes Program sparked her interest in end-of-life care and ethical dilemmas. Alison is the 2023 recipient of MERIT's graduate student fellowship award. Alison is currently working with Dr. Meredith Vanstone on a thesis project analyzing resource distribution decisions in intensive care during COVID-19 and the issue of moral distress in healthcare providers across Ontario and Alberta.



**Gregory Spadoni, MSc, PT**  
Associate Professor,  
School of Rehabilitation Science

Greg is a full-time Associate Professor in the School of Rehabilitation Science (SRS), Physiotherapy, McMaster University, engaged in a teaching role. He is currently the Chair of the physiotherapy program's Admissions Committee. Greg is a physiotherapist with expertise in musculoskeletal health and conditions and has attained the designation of Clinical Specialist Musculoskeletal from the Canadian Physiotherapy Association (CPA), certified by the Physiotherapy Specialty Certification Board of Canada. This designation certifies physiotherapists who have focused their careers and demonstrated advanced clinical competence, leadership, continuing professional development and research in a specific area of practice. In 2021, his collective career accomplishments were acknowledged and highlighted as a recipient of the CPA's Medal of Distinction.

# SCHOLARS

---



**X. Catherine Tong, MD**  
Associate Clinical Professor,  
Family Medicine

Dr. X Catherine Tong is a family physician with a practice in emergency medicine and prison health in Kitchener-Waterloo. She leads the faculty development portfolio for the Enhanced Skills Program at the Department of Family Medicine. She is the Program Director of the Royal College Clinician Educator Area of Focused Competence Diploma program at McMaster University. Recently, she has worked towards designing and delivering effective faculty development activities to address learning needs in equity, diversity and inclusivity in the clinical teaching environment.



**Mary Zachos, MD**  
Associate Professor,  
Pediatrics

Dr. Mary Zachos is an Associate Professor and clinician educator in the Department of Pediatrics at McMaster University and a practicing pediatric gastroenterology physician at McMaster Children's Hospital. Her clinical and research interests include pediatric IBD, point of care intestinal ultrasound and endoscopic procedural training. Dr. Zachos is the training program director for the Pediatric Gastroenterology and Nutrition Program and is completing a Royal College Clinician Educator Area of Focused Competence Diploma program at McMaster University. Currently she serves as the CBME representative on the Pediatric Education Advisory Committee and is a member of the Department of Pediatrics mentorship committee. She has served on the Royal College of Physicians and Surgeons of Canada Examination Committee and is on the Specialty Committee in Gastroenterology. Medical educational interests include the role of simulation and education technology in procedural training, as well as coaching and mentorship.



**Mohammad Zubairi, MD**  
Associate Professor,  
Pediatrics

Dr. Zubairi is a Developmental Pediatrician at Ron Joyce Children's Health Centre & Associate Professor in the Department of Pediatrics at McMaster University. He is currently program director for the McMaster Core Pediatrics Residency Program, and also Medical Director with the McMaster Children's Hospital Autism Program. He has co-lead the Equity Advocate and Allyship Program through Faculty Affairs and the Equity, Diversity and Inclusion Advisory Committee (EDIAC). As a MERIT Scholar, Dr. Zubairi is leading several studies in health professions education including an understanding of the knowledge-to-practice continuum in the emergency room care of children and youth with autism spectrum disorder, and how to enhance reflection on culture among undergraduate and graduate health professions students.

# MEMBERS

---

Thanks to our MERIT members who contribute tremendously to the scholarship of health professions education.

**Bashayer Abdulla**

**Tala Abu-Hijleh**

**Ali Al Maawali**

**Arden Azim**

**Bojana Babic**

**Alison Baker**

**Ereny Bassilious**

**Amanda Bell**

**Emilie Beyls**

**Emily Block**

**Joanne Britto**

**Kat Butler**

**Kyla Caners**

**Alice Cavanagh**

**Alexander Chorley**

**Shivani Dadwal**

**Victoria David**

**Chante de Freitas**

**Anahita Dehmoobad Sharifabadi**

**Crystal Fong**

**Jen Hoogenes**

**Shera Hosseini**

**Michelle Howard**

**Brian Hummel**

**Andrea Hunter**

**Bronte Johnston**

**Sarrah Lal**

**Tiff Lam**

**Marissa Laureano**

**Claire Lee**

**James Leung**

**Marie Leung**

**Robin Mackin**

**Arianna Mazzeo**

**Zahra Merali**

**Siraj Mithoowani**

**Shawn Mondoux**

**Omar Mourad**

**Trishana Nayiager**

**Syed Osmani**

**Simon Overduin**

**Sean Park**

**Maurine Parzen**

**Jose Pereira**

**Dilshan Pieris**

**Emma Plater**

**Maria Pratt**

**Jason Profetto**

**Claire Ramlogan-Salanga**

**Inge Schabert**

**Natasha Snelgrove**

**Danielle Soucy**

**Lisa Tucker**

**Hugh Traquair**

**Spencer Van Mil**

**Yuding Wang**

**Heather Waters**

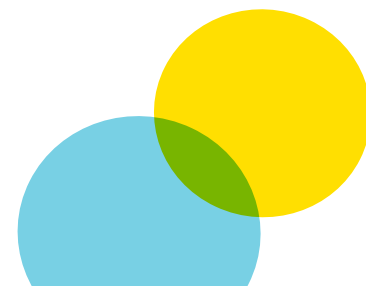
**Erin Williams**

**Michael Wong**

**Sherwin Wong**

**Jason Woodfine**

**Marco Zaccagnini**



# MERIT STAFF

---



**Sneesha Anandkumar**  
Multimedia Assistant



**Amy Keuhl**  
Project Officer



**Samantha Applewhaite**  
Program Coordinator



**Heba Khan**  
Research Assistant



**Priyanka Bajaj**  
Research Assistant



**Mark Lee**  
Research Support Manager



**Sonaina Chopra**  
Research Assistant



**Danielle Stayzer**  
Manager



**Betty Howey**  
Research Assistant



# MERIT MEMBERSHIP

---

The MERIT program is dedicated to building a community of practice around health professions education. There are two levels of membership for application:

## **Member and Scholar**



## **MEMBER**

### **Benefits**

- Profile in MERIT communications
- Opportunity for project consultation with one of our scholars or scientists
- Membership on Masters in Health Science Education thesis committee(s)

### **Responsibilities**

- Regular attendance at our monthly MERIT Rounds
- Presentation at MERIT rounds

## **SCHOLAR**

### **Benefits**

- Profile in MERIT communications
- Opportunity for project consultation with one of our scholars or scientists
- Internal competition for pilot research funding
- Access to office space and research assistant support (limited)
- Access to internal peer review of applications, publications and academic mentorship

### **Responsibilities**

- Peer consultations with Scholars and Scientists
- Scholarly paper review
- Regular attendance at our monthly MERIT Rounds
- Presentation at MERIT Rounds

**Interested in joining MERIT's community of practice?**

Learn more and join here: <https://bit.ly/MERITMembership>

# AWARDS AND HONOURS

---



**Anita Acai**

Canadian Association  
for Medical Education  
Medical Educators  
Champion Award

Health Sciences  
Graduate Student  
Association  
Excellence in  
Graduate Student  
Supervision Award



**Elif Bilgic**

CanChild/Kids Brain  
Health Network  
(KBHN)

KBHN Family  
Engagement in  
Research (FER)  
Training Program  
Scholarship



**Teresa Chan**

Society for Academic  
Emergency Medicine  
(SAEM)

2023 Hal Jayne  
Excellence in Education  
Award



**Sandra Monteiro**

Karolinska Institutet

Karolinska Institutet  
Prize for Research in  
Medical Education  
Fellowship



**Jonathan Sherbino**

Memorial University

Meridith Marks  
Mentorship Award

# ACTIVE GRANTS

TOTAL FUNDING: \$2.4M

## Association of American Medical Colleges National Graduate Education Award

*Building Expertise in Visual Diagnosis Efficiently: What is the Secret Sauce?*

## Canadian Institutes of Health Research Bridge Funding

- *CYCLE RCT: Process evaluation, end-of-grant knowledge translation, and planning for future ICU survivorship rehabilitation interventions*
- *Synthesizing evidence and sparking citizen and decision-maker action to address misinformation*

## Canadian Institutes of Health Research COVID Impact Grant

*Moral distress in critical care and family medicine during the COVID-19 pandemic*

## College of Family Physicians of Canada

- *An appraisal of grassroots Patient Medical Home practice developments in Canada: A College of Family Physicians in Canada commissioned study*
- *Team primary care – Training for transformation: Educational design and policy analysis*

## eCampus Ontario Virtual Learning Strategy

- *McMaster health professions education research: A digital primer*
- *Problem-Based Learning 2.0: Outcomes-based core educator and leader training for the health professions*

## Future of Canada Project Research Grant

*Bringing hope and well-being to community-dwelling older Ontarians in the pandemic world through creative writing and digital literacy learning*

## MacPherson Institute Student Partners Program Grant

*Burnout among undergraduate medical applicants*

## McMaster University Department of Education Services, Education Scholarship Fund

- *Developing an identity as a health professional: insights from social and transformational learning*
- *Taking Health Professions Education into the Metaverse... A design-based research study to design and evaluate a virtual emergency department simulation space*

## McMaster University Department of Pediatrics Education Endowment Fund

*The Co-WRaP study: Co-creating solutions to enhance the well-being of residents and partners*

## McMaster University Department of Pediatrics Education Resident Research Grant

*Resident Impact on Medical Students: Education, Satisfaction, Specialty Choice, and Residency Preparedness*

## McMaster University, Gender & Health Education Initiative

*Creating Brave Spaces: A Simulation-based Faculty Development Curriculum on Equity, Diversity and Inclusivity*

## McMaster University, Okanagan Special Project Fund

*The Co-WRaP study: Co-creating solutions to enhance the well-being of residents and partners*

## McMaster University, Postgraduate Medical Education Office, Medical Education Research Grant

- *Describing the impact of Entrustable Professional Activities on competence committee decision making*
- *Managing disorienting dilemmas on the route towards professionalization: a qualitative study of a Canadian adult cardiology residency training program*
- *'Mock Wards': Incorporating a theoretical framework to create a virtual clinical reasoning education platform*
- *Resident Impact on Medical Students: Education, Satisfaction, Specialty Choice, and Residency Preparedness*

## Medical Council of Canada Education Research Grant

*Developing a Technology-Enhanced Therapeutics Decision-Making Examination*

## Medical Education Research Grant

*Peer Observation of Teaching: Multiple-Site Case Study Guided by Diffusion of Innovations Theory*

## Medical Protection Services UK, Research Fund

*A multi-site investigation into the effectiveness of an artificial intelligence powered clinical decision support technology on students' clinical reasoning when using virtual and real patients*



# ACTIVE GRANTS (CONTINUED)

## **MERIT Scholar Research Pilot Grant**

*Creating Brave Spaces: Evaluating a Simulation-based Faculty and Staff Development Curriculum on Equity, Diversity and Inclusivity*

## **MITACS Accelerate**

- *Accelerating the Healthcare Leader's Career Pathways: Determining pathways of leadership, and developing and testing a mobile app prototype*
- *Understanding design principles of music and health care education as interdisciplinary field and developing an online education program: a qualitative study*

## **National Defence (Canada), Mobilizing Insights in Defence and Security (MINDS), Targeted Engagement Grant**

*Are we doing our BEST? Evaluating a trauma-informed sexual misconduct training program for military leaders*

## **Physicians' Services Incorporated Operating Grant**

*Intimate partner violence during recovery from a musculoskeletal injury: A pilot prospective, multicentre cohort study*

## **Physicians' Services Incorporated Research Grant**

*Exploring Talent in Medical Education*

## **Physicians' Services Incorporated Starter Fund, MERIT**

- *COVID disruption of medical socialization: a threat to professional identity formation in undergraduate medical students*
- *The Co-WRaP study: Co-creating solutions to enhance the well-being of residents and partners*



**TOTAL  
FUNDING:  
\$2.4M**

## **Royal College of Physicians and Surgeons of Canada - Medical Education Research Grant**

- *Defining the Key Abilities Required to Perform in Challenging Pediatrics Procedures*
- *The Co-WRaP study: Co-creating solutions to enhance the well-being of residents and partners*

## **Social Sciences and Humanities Research Council (SSHRC) Insight Development Grant**

- *How are emotions of medical trainees and faculty impacted by new assessment mandates implemented in medical education?*
- *Racial equity in medical education: Exploring sociocultural factors that help and hinder agency among racialized learners*

## **Social Sciences and Humanities Research Council (SSHRC) Partnership Engage Grant**

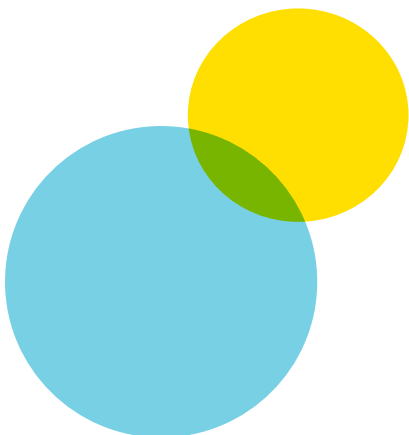
*Exploring the Role of Virtual Reality to Support New Training and Assessment Mandates in Medical Education*

## **Society for Academic Emergency Medicine**

*The Evaluation of Learning Resources (EvaLeR) in Emergency Medicine*

## **U21 Health Science Group International Projects Fund**

*A multi-site investigation into the effectiveness of an artificial intelligence powered clinical decision support technology on students' clinical reasoning when using virtual and real patients*





## PRESENTATIONS AT CONFERENCES & MEETINGS

---

4th Scientific Day, Centre for Pedagogy Applied to Health Sciences, Université de Montréal. **Montreal, QC**  
AM Edwards Invited Lecture. Department of Medicine. **University of Alberta\***  
American College of Emergency Physicians Academy of Clinical Educators. **New York City, NY, USA\***  
American Educational Research Association Annual Meeting. **Chicago, IL, USA\***  
Annual Conference of the Association for Medical Education in Europe. **Glasgow, Scotland**  
Asia Pacific Medical Education Conference 2023. **Singapore**  
Association of Faculties of Medicine of Canada (AFMC) CPD Research Symposium\*  
Barts Medical School and Queen Mary University. **London, UK**  
Beth Israel Deaconess Medical Centre / Harvard Medical School Affiliated Internal Medicine Program. **Boston, MA, USA\***  
Canadian Association for Health Services and Policy Research 2023 Conference. **Montreal, QC**  
Canadian Association of Emergency Physicians Conference. **Toronto, ON**  
Canadian Conference for the Advancement of Surgical Education. **Montreal, QC**  
Canadian Paediatric Endocrine Group (CPEG) Scientific Meeting. **Montreal, QC**  
Canadian Pediatric Society Annual Conference. **Halifax, NS**  
Conference of the Society for Teaching and Learning in Higher Education. **Charlottetown, PEI**  
Danish Rheumatology Society Annual Meeting 2023. **Kolding, Denmark**  
Emergency Medicine Grand Rounds, McMaster University. **Hamilton, ON**  
Erasmus+ Meetup, University of Eastern Finland. **Kuopio, Finland\***  
European Calcified Tissue Society\*  
Faculty of Health Sciences Graduate Plenary. **Hamilton, ON**  
Grand Rounds, Department of Pediatrics, McMaster University. **Hamilton, ON**  
Grand Rounds, Department of Surgery, McGill University. **Montreal, QC\***  
Hamilton Law Society. **Hamilton, ON**  
Harvard Macy Institute. **Boston, MA, USA\***  
Health Beyond Summit, Canadian Space Agency\*  
Hospital for Sick Children Research Day. **Toronto, ON**  
International Association of Medical Science Educators (IAMSE) Webcast Audio Seminar Series. **Huntington, WV, USA\***  
International Conference on Residency Education. **Halifax, NS**  
International Congress on Academic Medicine. **Quebec City, QC**

\* indicates virtual event

## PRESENTATIONS (CONTINUED)

International Society for the Prevention of Child Abuse & Neglect Congress. **Edinburgh, Scotland**

Learn Serve Lead 2023: The AAMC Annual Meeting. **Seattle, WA, USA**

McMaster Child Health Research Day. **Hamilton ON**

MedHub UME Virtual Healthcare Summit "Making Global Connections"\*

Meridith Marks Named Lecture. Faculty of Medicine, Memorial University. **St. John's, NL**

Meridith Marks Day 2023, University of Ottawa. **Ottawa, ON**

Military and Veteran Health Research Forum. **Ottawa, ON**

New England College Research Lecture Series. **Boston, MA, USA\***

Postgraduate Medical Education Rounds, McMaster University. **Hamilton, ON**

Psychiatry Research and Scholarship Day. **Hamilton, ON**

Research Group in Pursuit of Validity, Sherbrooke University. **Sherbrooke, QC**

SAEM Consensus Conference on Precision Medicine: Health Professions Education

Small Group, Society of Academic Emergency Medicine. **Austin, TX, USA**

Society for Academic Emergency Medicine Annual Meeting. **Austin, TX, USA**

Society of Rural Physicians of Canada Conference 2023. **Niagara Falls, ON**

University of Calgary Emergency Medicine, Keynote Address. **Calgary, AB**

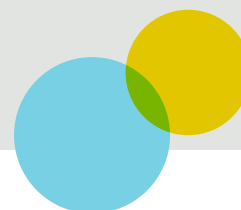


\* indicates virtual event

"In 2022, the Department of Pediatrics (DoP) onboarded its first ever education scientist - Dr. Elif Bilgic. In her joint role as MERIT scientist and DoP member, she has collaboratively moved education scholarship to a higher level. Her engagement with faculty and learners has been instrumental in improving the calibre and volume of education research. Mentorship has led to many successes in education including one of our faculty members receiving the 2023 MERIT faculty fellowship.

Beyond this partnership, many of our department members are MERIT members and enjoy being part of the education scholarship community of practice through attending journal clubs, events including the NERD and Sibley Lecture, and consultation with the MERIT scientists."

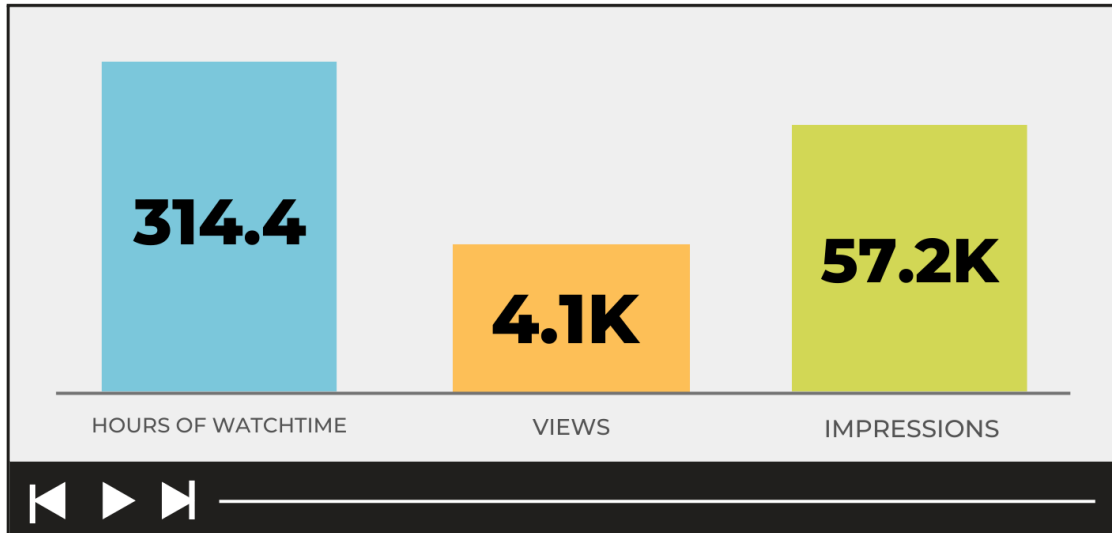
**Dr. Ereny Bassilious, Associate Chair Education,  
Department of Pediatrics**





YouTube

MERIT Social Media By The Numbers



### McMaster Education Research Innovation & Theory | Annual Report 2023



McMaster Education...



Share

Promote



160 Subscribers - 91 Videos

### Most Popular - 2023

▶ Play all



**Nothing About Us, Without Us | Dr. Karen Burns | PSI Impactful...**

McMaster Education Research, Innovation...  
305 views - 4 months ago



**The Problem With Feedback | Dr. Kevin Eva | Sibley Lecture...**

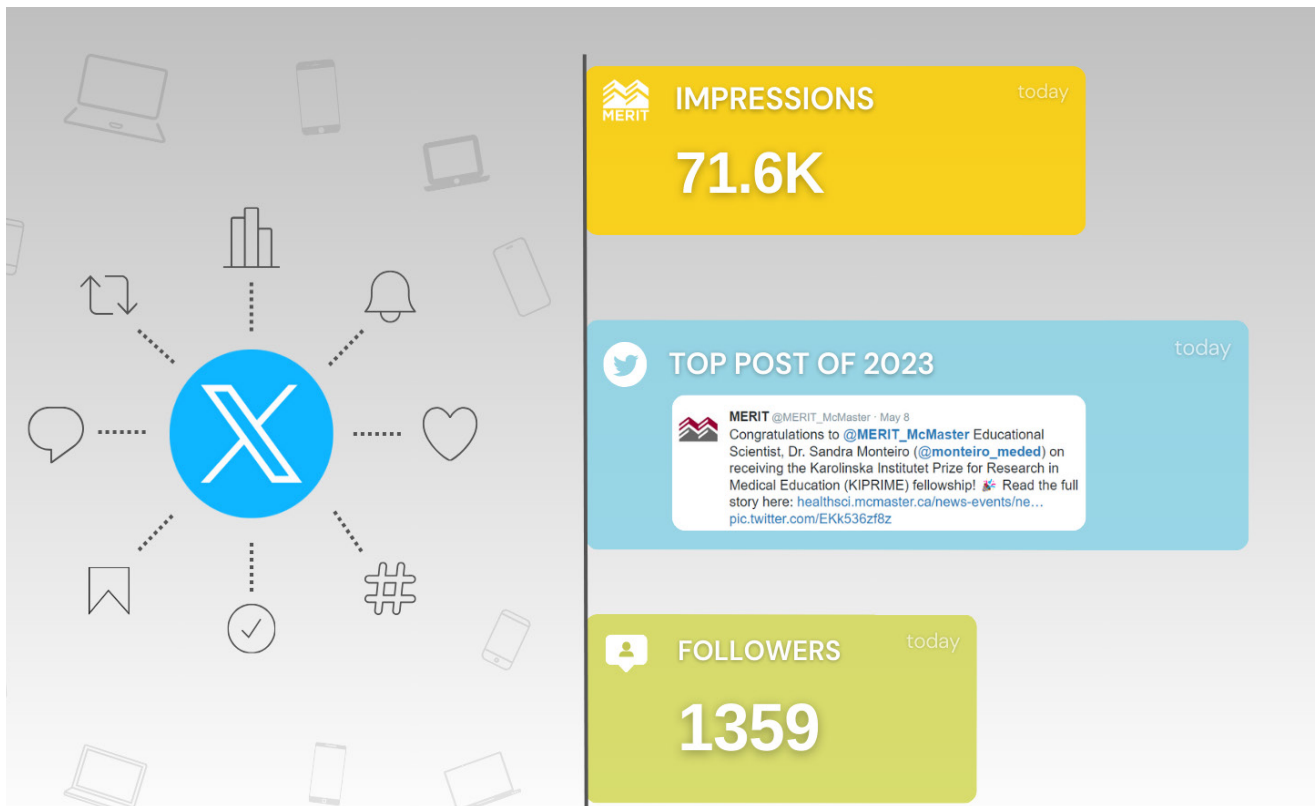
McMaster Education Research, Innovation...  
224 views - 6 months ago



**Keynote | Dr. Saleem Razack | Norman Education Research Day...**

McMaster Education Research, Innovation...  
126 views - 2 months ago

# MERIT SOCIAL MEDIA BY THE NUMBERS

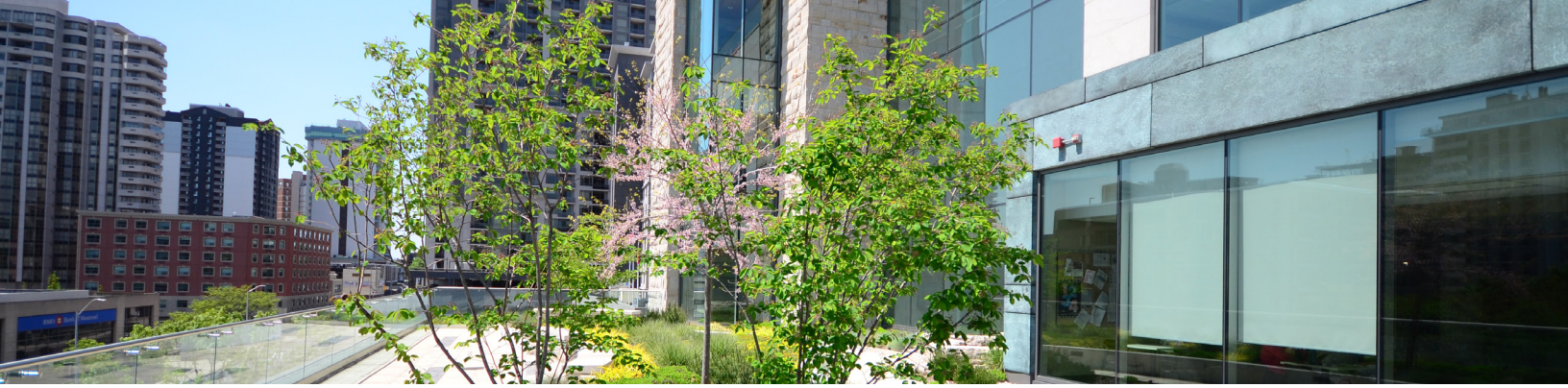


## MERIT is on LinkedIn!



We're thrilled to announce that MERIT is now on LinkedIn! As a dynamic platform for professional networking, we invite you to join us in the conversation. Follow our LinkedIn page to stay informed about our latest events, opportunities and to be a part of a community of scholars and researchers who are passionate about health professions education research!

[+ Follow](#)



## MERIT STRATEGIC CONSULTATION

In 2022, an operational external review of MERIT identified several action items to advance the mission of MERIT. One of these items centered on clarifying and communicating the purpose and function of MERIT to departments, schools, and partners across multiple campuses.

The review has identified a number of themes/questions for us to address as a community. MERIT's next steps include prioritizing questions identified via the consultation and engaging in conversations around these questions (town halls, retreats or other community-based events).

The Strategic Consultation has validated how MERIT contributes to the Faculty of Health Sciences.

- MERIT scientists produce world-class education research;
- MERIT fosters a community of practice for faculty interested in education scholarship; and
- MERIT collaborates on education problems within the Faculty of Health Sciences, providing expertise on education theory and evidence.

In the coming academic year, the MERIT community seeks to answer the following questions:

1. How does MERIT continue to produce bold, world-class health professions education research?
2. What are the metrics for measuring the success of MERIT?
3. How does MERIT effectively collaborate within FHS and the McMaster community, while differentiating its unique role and contributions?





## MERIT ROUNDS

The MERIT Educational Rounds profile emerging topics of interest and controversy in health professions education. Using a facilitated, interactive format, local and international presenters share ideas for discussion and debate.

### 2023 Rounds Event Listing

**Amin Madani, University of Toronto/University Health Network**

Artificial Intelligence and Augmentation of Surgical Performance

**Sarah Wojkowski & Greg Spadoni, McMaster University**

Vertical Versus Horizontal Assessment Methods for Scoring Physiotherapy Entrance Interviews

**Yusuke Watanabe, Hokkaido University Hospital**

Power of International Collaboration in Simulation and Medical Education

**Kevin Eva, University of British Columbia**

The problem with feedback: Why after a century of research we still can't get it right  
*(John C. Sibley Award Ceremony & Lecture)*

**Cheryl Poth, University of Alberta**

What Can Mixed Methods Offer Health Researchers?

**Henk Schmidt, Erasmus University**

Room for improvement in the teaching of clinical reasoning?

**Saleem Razack, University of British Columbia**

Honouring the Multitudes: Removing Racism from Medical Education  
*(Norman Education Research Day)*

**Erin Aspenlieder, Rebecca Taylor & Kimberly Mason, McMaster University**

AI & the Ethical Educator: Balancing Innovation and Integrity in Health Professions Education

**Jerry Maniate, University of Ottawa**

Walking Together: The Importance of Community, Collaboration, & Partnerships to Further Health Equity

**Cheryl Poth, University of Alberta**

What Distinguishes a Credible Mixed Methods Study from Other Research Approaches?

Rounds presentations can be found on the MERIT YouTube Channel here:

<https://bit.ly/3ltgrFx>



## MERIT THINKTANK

---

MERIT *thinkTank* is an education research consultation service. Education scholars working on a project or research design can request a consult. MERIT Scientists and Scholars attend, bringing diverse perspectives that include: cognitive psychology, social sciences, kinesiology, qualitative and quantitative methodologies, psychometrics, and more.

Each consultation includes a presentation by the principle investigator, followed by a facilitated discussion between the MERIT team and the PI.

### 2023 *thinkTank* Sessions

#### **Quang Ngo**

Assessment in Multi-patient Environments – Towards Validity Evidence for a Simulation-Based Approach

#### **Greg Spadoni**

Predictors of Success in a Graduate, Entry-Level Professional Program: From Admissions to Graduation

Apply for an  
education research  
consult  
[\*\*HERE\*\*](#)





## LUNCH & A LAB MEETING

---

MERIT's Lunch & a Lab Meeting offers an opportunity to network, discover and discuss topics in health professions education. The featured guest provides an in-depth look into a topic in HPE and a presentation of their current work. This gives individuals the chance to get their questions addressed related to their work and expertise.

### 2023 Lunch & a Lab Meeting Sessions

**Teresa Chan**

Dyads, teams, labs, and groups: Exploring how research gets done in reality

**Young Min Kim**

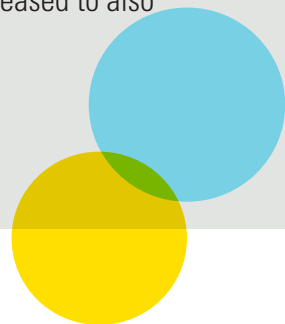
A Simulation-Based Shared Decision-Making Training Course for AI-Assisted Clinical Encounters of Medical Graduates: A Mixed Method Study

**Anjali Menezes**

We all got counted. Now What? Race-based data collection, "at risk" learners, surveillance, and the myth of liberation in medical education research

"The Niagara Regional Campus benefitted from the support of MERIT Scholar Dr. Daniel Brandt Vegas in determining how to evaluate our Evidence Based Medicine Rounds. Based on his advice, we have prepared an evaluation protocol that has been approved by the research ethics board and work on the evaluation has begun. As a distributed medical education site, we are pleased to also partner with MERIT in our work and scholarship."

**Dr. Amanda Bell, Regional Assistant Dean  
Niagara Regional Campus**





## NORMAN EDUCATION RESEARCH DAY

Norman Education Research Day (NERD) is dedicated to celebrating the rich history and future of health professions education research and scholarship across the Faculty of Health Sciences and McMaster University and is named after one of McMaster's longstanding faculty, **Geoff Norman**. Dr. Norman is a Professor Emeritus, a Scientist at MERIT, and a member of the Department of Health Research Methods, Evidence, and Impact.

Information about the day can be found at the NERD website:  
<https://www.normanresearchday.ca/>

### Keynote Speaker

#### **Saleem Razack**

Dr. Saleem Razack joined the faculty at UBC/BC Children's Hospital on January 1, 2023, after a 25-year career as a pediatric intensivist and medical educator/education researcher at McGill University. He is a graduate of the University of Toronto. His research interests in medical education include the intersection of assessment and professionalism with representation, equity, diversity, inclusion and anti-racism, for which he has had SSHRC and CIHR support. He is the recipient of the AFMC May Cohen award for outstanding contributions to equity in medical education, the Haile T. Debas award for contributions to equity in the Faculty of Medicine and Health Sciences at McGill, and the Pediatric Chairs of Canada award for outstanding contribution to Medical Education. He is excited to start anew at UBC and hopes to continue to serve in and contribute to the vibrant scholarly community in health professions education in Canada and beyond.

### **Honouring the Multitudes: Removing Racism from Medical Education**

**Keynote presentation can be found here:** <https://bit.ly/49lcpRd>

#### **Conference Committee (alphabetical order):**

Samantha Applewhaite, Sonaina Chopra, Lawrence Grierson (co-chair), Shayan Novin, Jonathan Sherbino (co-chair), Duygu Turkman, Courtney Wright

# PSI VISITING SCHOLARS EVENT

## Impactful research: Building a practice of reflections and reflexivity to reconsider the impacts of research



What are the true impacts of the research that we engage in? How do we assess the credibility of research and its ability to empower change in our communities? What about the impacts of research failures on scientists themselves? Most importantly, how do we ensure that cultural responsiveness is practiced within research where communities are more than research samples, collaborate in data generation and retain autonomy over the data that has been provided? This one-day conference explored the breadth of impacts that are incurred in research and the effects they can have on data, scientists, and community. The conference is part of the Visiting Scholars program sponsored by Physicians' Services Incorporated.



**Karen Burns**  
University of Toronto



**Harriet MacMillan**  
McMaster University



**Lara Varpio**  
University of Pennsylvania

Presentations can be found here: <https://bit.ly/47u5Nou>

## Winning Research Proposals on Exploring the Impact of Research

### Enas El Gouhary & Catherine Munn

Department of Pediatrics & Department of Psychiatry and Behavioral Neurosciences

**Project Proposal:** Co-WRaP: Co-creating Solutions to Enhance the Well-being of Residents and Partners

Building upon the findings of the cross-sectional, quantitative UnWRaP Study, the aim of the Co-WRaP study is to engage trainees and partners in in-depth interviews in order to: (1) Better understand and characterize the ways in which postgraduate medical trainees and their partners report experiencing, coping with and/or managing stress, burnout, and the mental health and relationship challenges associated with training, and (2) Identify and explore potential strategies and solutions at the individual, dyadic and systemic levels which could help them to better cope with stress, burnout, and the mental health and relationship challenges they associate with training. This qualitative data, together with the quantitative data currently being gathered, can help to inform and co-design future quality improvement initiatives and burnout intervention studies in residency, fellowship and Postgraduate Medical Education programs.

### Conference Committee (alphabetical order):

Samantha Applewhaite, Deborah Cook (co-chair), Heba Khan, Jonathan Sherbino (co-chair)



## RETHINK CLINICAL REASONING CONFERENCE

---

The ReThink Conference examined new ideas from innovative thinkers and explore the complexities behind clinical reasoning. The inspiration was to think innovatively and break away from a traditional discourse about clinical reasoning. It was recognized that a growing concern over rising rates of clinical error was a strong motivating factor for continued education and research on clinical reasoning. However, there were limitations by what is already known and expertise levels within. To break free from these bonds, an inclusive space was created to re-define the problem and innovate new solutions.

The keynote speaker was **Dr. Ellen Amster**. Dr. Amster is the Jason A. Hannah Chair in the History of Medicine and jointly appointed to the Departments of Family Medicine and Religious Studies. Dr. Amster is an interdisciplinary historical scholar of the Islamic world, medicine, France, science, and gender. Dr. Amster is interested in scientific modernity in Western and Islamic thought, women's histories, public health, and citizenship. During the keynote, Dr. Amster spoke about the history of medicine and examples of racism in medicine, both historically and today.



### Panel Discussions

- Social Justice and Clinical Reasoning
- AI and Clinical Reasoning
- Health Systems and Clinical Reasoning

The ReThink Conference also included a number of poster presentations related to innovations in clinical reasoning. [Click here to view the posters.](#)

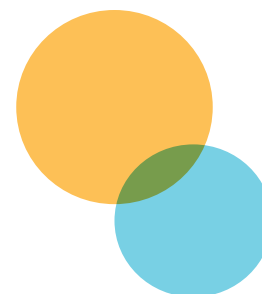
The ReThink Conference was organized and hosted by the McMaster Continuing Professional Development Office (CPD) and MERIT.

### Conference Committee (alphabetical order):

Teresa Chan (co-chair), Amy Keuhl, Mark Lee, Mathew Mercuri, Sandra Monteiro (chair), Jonathan Sherbino, Danielle Stayzer, X. Catherine Tong (co-chair)



# Winning Research Proposals ReThink Conference Seed Grant Competition



## **Sandra VanderKaay**

School of Rehabilitation Science, McMaster University

**Project Proposal:** Drawing On Occupational Therapists' Epistemologies Of Practice To Inform Clinical Reasoning And Promote Equity: A Qualitative Exploratory Pilot Study

The objective of the research is to complete a qualitative exploratory pilot study of how Canadian occupational therapists who self-identify as part of an equity-deserving group and who work with clients from equity-deserving groups draw on their practice knowledges (i.e., epistemologies of practice) to inform clinical reasoning in a way that promotes equity.

## **Meredith Young**

Institute of Health Sciences Education, McGill University

**Project Proposal:** Exploring How Clinical Reasoning is Shaped by Clinical Assessment

As tools, patient-focused clinical assessments are intended to support effective clinical reasoning and decisions within health systems. However, early data suggests that occupational therapists experience patient-focused clinical assessments as active 'participants' in a clinical encounter that shapes their reasoning and management plans. In this small pilot study the aim is to explore the following: (1) Do physicians in practice report experiencing a shift in clinical reasoning due to the presence (or use) of patient-focused clinical assessments? and (2) How do practicing physicians describe the influence of patient-focused clinical assessments on their clinical reasoning?

## **Publications**

Alvarez A, Monteiro S, Chen R, Cohen K, Fofana M, Powell C, Tago A, Martin L. Re-THINK: Use of narratives to explore social justice in clinical practice and education. *Journal of Evaluation in Clinical Practice*. [accepted]

Cameron E, Mose R, Fleming H, Monteiro S. Exploring Context and Culture in Clinical Reasoning Medical Education: A Qualitative Exploratory Study. *Journal of Evaluation in Clinical Practice*. [accepted]

Monteiro S, Chan T. ReThinking Clinical Reasoning: A Paradigm Shift. *Journal of Evaluation in Clinical Practice*. [in prep]

Monteiro S, Acai A, Kahlke R, Chan T, Sukhera J. Exploring strategies to eliminate prejudice in clinical decision making. *Journal of Evaluation in Clinical Practice*. [submitted]

Norman G, Pelaccia T, Wyer P, Sherbino J. Dual process models of clinical reasoning: putting the horse before the cart. *Journal of Evaluation in Clinical Practice*. [submitted]

Olson A, Kammer JE, Taher A, Johnston R, Yang Q, Mondoux S, Monteiro S. The Inseparability of Context and Clinical Reasoning. *Journal of Evaluation in Clinical Practice*. [submitted]

Rose C, Chan T. Invisibility, cloaks and daggers: Balancing clinical hazards in the age of artificial intelligence. *Journal of Evaluation in Clinical Practice*. 2022 Sep 7.

Schmidt H, Norman G, Mamede S, Mabzoub M. The Influence of Context on Diagnostic Reasoning: A Narrative Synthesis of Experimental Findings. *Journal of Evaluation in Clinical Practice*. [submitted]

Sibbald M, Zwaan L, Yilmaz Y, Lal S. Incorporating artificial intelligence in medical diagnosis: A case for an invisible and (un) disruptive approach. *Journal of Evaluation in Clinical Practice*. 2022 Jun 27.

# HEALTH PROFESSIONS EDUCATION RESEARCH (HPER) COURSE

---

The Health Professions Education Research (HPER) course is an open-access course that introduces key ideas and processes in education scholarship. As academic health professionals, we are committed to advancing our field. If you are new to the health professions or new to education scholarship, this course provides a systematic, structured approach for you to consider before turning your big idea into scholarship.



The course is work at your own pace with a variety of publications, videos and podcast episodes.

**Visit the HPER website here:** <https://www.macpfd.ca/hper-curriculum>

# UNDERGRADUATE MEDICAL EDUCATION RESEARCH ELECTIVE

---

Health professions education (HPE) research attempts to understand how health professionals learn and practice. This 5-week elective (typically held in the Winter term) introduced Faculty of Health Sciences students to education scholarship within the context of HPE. Students are exposed to a variety of HPE-related literature with the aim of broadening their knowledge of the domains of HPE (e.g., simulation, assessment, clinical teaching, etc.), and expanding their exposure to research design.

Each week, students came prepared to engage in discussion and inquiry on a specific HPE-related topic, facilitated by a MERIT scientist with expertise in that area of study.

## Speakers

Anita Acai  
Teresa Chan  
Geoff Norman  
Jonathan Sherbino  
Matthew Sibbald

## Course Coordinator

Mark Lee

Exploring Education  
Scholarship in  
Health Professions  
Education  
Jan 12 - Feb 9  
2023

# MERIT MAPS

MERIT Maps helps find McMaster faculty members publishing in the health professions education literature. MERIT Maps is a program that visualizes author networks based on their publications. This app uses PubMed Central's databases to search McMaster University Faculty of Health Sciences affiliated researchers.

**MERIT Maps can be accessed at:** <https://meritmaps.ca/>

The screenshot shows the MERIT Maps website interface. At the top, there is a navigation menu with links: Home, UGME, PGME, Assessment, Teaching, Simulation, CBME, Leadership, Program Evaluation, Admissions, e-learning, Feedback, About, and Disclaimer. The MERIT logo is prominently displayed, with the tagline 'MCMaster Education Research, Innovation & Theory'. Below the logo, a search bar contains the text 'Competency-Based Medical Education' and a 'Build' button. A network visualization of authors is shown, with Jonathan Sherbino at the center. Other authors connected to him include Ranil R. Sohnadara, Michelle Zeller, Anita AcaiBandar Baw, Mark McRae, Christine Fallon, Donald Arnold, Victoria E. McKim, Matthew Leonard, Nicolette Caccia, Andrew K. Hall, Alireza Mansouri, Susan Ellis, Beth Murray, Davis, Elaine Van Melle, Alexander Chorney, S. Lucket-Gatopoulos, and Sandra Monteiro. A sidebar on the left shows 'MERIT Maps' with 'Study: 37' and 'Authors: 46'. A callout box for Jonathan Sherbino is on the right, with a 'Show Author Details' button.

## THE LIBRARY ESSENTIAL PAPERS AND RESOURCES FOR HEALTH PROFESSIONAL EDUCATION

The Library: Essential Papers and Resources for Health Professions Education is an open-access reading list designed for clinicians, students and scholars who are interested to learn about the world of health professions education. The website has been curated into various topics related to HPE, including simulation, program evaluation, education leadership and more. All publications have been given a seal of approval from content experts in the field. Publications can be up-voted right on the website by visitors who think the article deserves a read.

**The Library can be accessed at:** <https://hpeworld.com/>

## GOOD PRACTICES IN EDUCATION PODCAST

---

The Good PIE (Good Practices in Education) podcast is a collaboration between McMaster Program for Faculty Development (PFD) and MERIT to highlight the education research of MERIT scientists and scholars.

Each episode focuses on an area of education research for faculty, clinician-educators, and teachers in health professions education. In the last 12 months, the Good PIE podcast has received over **1000 streams**.



**Listen to the episodes here:** <https://www.macpfd.ca/podcast>



## NAVIGATING ETHICS IN EDUCATION SCHOLARSHIP WORKSHOP

---

This virtual workshop, held in Spring 2023, engaged participants in discussion and inquiry on the practicalities of the ethics application process, with a focus on education scholarship ethics reviews. The session began with an overview of ethics and the importance of review boards to research, followed by an exploration of how the principles of education research ethics can be applied to participants' scholarship activities.

**Facilitator**  
Mark Lee





## SIBLEY LECTURE

---

The Sibley Lecture is a special MERIT Rounds, and a component of the John C. Sibley Award for Excellence in Education for Part-Time Faculty.

### 2023 Sibley Lecture Speaker

#### Kevin Eva

Dr. Kevin Eva (PhD, Hon. FAcadMEd) is Associate Director and Senior Scientist in the Centre for Health Education Scholarship, and Professor and Director of Educational Research and Scholarship in the Department of Medicine, at the University of British Columbia. He completed his PhD in Cognitive Psychology (McMaster University) in 2001 and became Editor-in-Chief for the journal *Medical Education* in 2008. Dr. Eva maintains a number of international appointments including Honorary Skou Professor at Aarhus University (Denmark), Honorary Professorial Fellow at the University of Melbourne (Australia), and visiting professor at the University of Bern (Switzerland). The core theme of his diverse research interests is the question of how can we improve decision-making in the context of health professional training and practice? Awards for this work include the Karolinska Institute Prize for Research in Medical Education (Sweden), an Honorary Fellowship from the Academy of Medical Educators (UK), MILES Award for Mentoring, Innovation, and Leadership in Education Scholarship (Singapore), and the President's Award for Exemplary National Leadership from the Association of Faculties of Medicine in Canada.



### The problem with feedback: Why after a century of research we still can't get it right

Often cited as the most influential factor in learning, feedback is so central to education that training in how to deliver it well is usually the foundation on which faculty development programs are built. Our understanding of how to offer such advice has evolved over decades of study with increasing emphasis placed on the feedback receiver's role and the value of relationship-centred dialogue rather than simple data provision. For all that, we continue to overlook both the risks inherent in feedback conversations and the role that our educational systems play in making feedback threatening. In this talk Dr. Eva explored various complexities surrounding the evidence and application of feedback provision, commented on feedback's insufficiency, and outlined strategies for thinking better about performance improvement goals across the continuum of training.

Full presentation can be found here: <https://bit.ly/3MTMFHI>

## SIBLEY AWARD

---

The John C. Sibley Award for Excellence in Education for Part-Time Faculty is presented annually to a part-time faculty member who has made outstanding contributions to the education of health professionals. It is named for a former associate dean of the Faculty of Health Sciences who was known for his interdisciplinary approach to community health. This award is presented at the Sibley Lecture/MERIT Rounds.

### 2023 Sibley Award Recipients

#### **Shanda Hunter-Trottier**

Assistant Clinical Professor, School of Rehabilitation Science

Shanda Hunter-Trottier has been a part-time instructor in the Speech Language Pathology (SLP) program in the School of Rehabilitation Science since its inception in 2017. Ms. Hunter-Trottier's contribution as a sessional instructor is a small part of her commitment to the academic mission of the program and School. She hosts undergraduate students as volunteers at her clinic; has taken students for every placement opportunity since the program began; provides unique opportunities for trainees through her interprofessional work in the North; and represents students and the profession at the local, provincial, and national levels. She is also the director and founder of S.L. Hunter SpeechWorks since 1995.



#### **Joel Hamstra**

Associate Clinical Professor, Anesthesia

Dr. Hamstra's areas of interest are international anesthesia education, simulation-based education and obstetrical anesthesia. Dr. Hamstra has a major interest in international anesthesia education and one of his most impactful accomplishments is with the anesthesia residency training in Guyana. As the Department Lead in International Education, he played an integral role in the educational partnership between Georgetown Public Hospital Corporation/Institute for Health Sciences Education and McMaster University. Dr Hamstra is also an executive committee of MacGIObAS since its inception in 2017. MacGIObAS is a partnership involving the Global Health Office, and Departments of Obstetrics, Anesthesia and Surgery to support collaboration in international education and research in order to advance global surgical care.



# HEALTH PROFESSIONS EDUCATOR AWARD

---

The award is designed to encourage and reward the continued excellence of health professions education and scholarship within McMaster University. Nominees are senior faculty and leaders in their respective educational schools that have made substantial contributions to education in the Faculty of Health Sciences throughout their careers, including teaching, mentorship, educational scholarship, or research. This award is supported by MSc Health Science Education Masters program and MERIT.

## 2023 Health Professions Educator Award Recipient

### **Kristen Burrows**

Assistant Professor, Department of Medicine

Dr. Kristen Burrows is the Assistant Dean of the McMaster Physician Assistant Education Program (PAEP) and an Assistant Professor in the Department of Medicine. As a graduate of McMaster's inaugural PA class, Dr. Kristen Burrows has been privileged to work in internal medicine and clinical dermatology. Before becoming a PA, Dr. Kristen Burrows was a clinical epidemiologist and infection control practitioner until she traded travel for life in Hamilton with her partner and children.



Dr. Kristen Burrows holds a BSc in Biomedical Sciences from the University of Guelph, MSc in Epidemiology & Population Medicine from the Ontario Veterinary College, BHSc(PA) in Physician Assistant Studies and PhD in Health Research Methodology from McMaster University. Dr. Kristen Burrows's medical education interests focus on the alignment of professional competencies with health human resource needs, role integration of physician extenders, and student mentorship.

# EDUCATION SCHOLARSHIP FUND

---

The Faculty of Health Sciences Education Scholarship Fund is to encourage and provide support for the development and/or evaluation of novel and innovative approaches to health sciences education in the Faculty of Health Sciences. This fund is supported by the Department of Education Services.

## 2023 Education Scholarship Fund Recipients

### **Ilana Bayer & Teresa Chan**

Assistant Professor, Department of Pathology & Molecular Medicine

Associate Clinical Professor, Department of Medicine

**Project Proposal:** Taking Health Professions Education into the Metaverse... A design-based research study to design and evaluate a virtual emergency department simulation space

The purpose of this project is to design and evaluate a metaverse-version of an emergency department where learners can simulate the care of multiple patients, learn about, and interact with hospital systems. Using a stakeholder-engaged approach, our study seeks to answer the following questions: 1) What are the needs perceived by the stakeholders when engaging in a metaverse-based simulation of an emergency department?; 2) What are the affordances and limitations of a metaverse-based simulation?



### **Irena Rebalka**

Assistant Professor, Department of Pathology & Molecular Medicine

**Project Proposal:** Comparison of three visual modalities for the assessment of anatomy knowledge

The purpose of the research study is to investigate differences in both learner testing performance and testing preference between three modalities of a practical BR exam: 1) Using in-person prosected cadaveric specimens in a wet lab setting; 2) Using 2D images of cadaveric specimens on paper in a dry lab setting; 3) Using 3D reconstructions of cadaveric specimens in VR in a dry lab setting.





## MERIT FACULTY FELLOWSHIP

---

The MERIT Faculty Fellowship provides mentorship and supervision in health professions education research. The goal of the program is to increase the number of education scholars within the Faculty of Health Sciences. The fellow will complete a scholarly education project, either a research project or evaluation of an innovation. The fellow will design a personalized curriculum to help them acquire the necessary skills to complete their project and acquire the foundational abilities of an education scholar.

### 2023 Faculty Fellows

#### Quang Ngo

Associate Professor, Department of Pediatrics

**Mentor:** Elif Bilgic & Teresa Chan

**Project:** Assessment in Multi-patient Environments – Towards Validity Evidence for a Simulation-based approach



"The opportunities provided through the fellowship have been invaluable to my being able to grow as an education scholar. I've been given mentorship directly for my own project as well as time which have been instrumental in moving the project to completion. More importantly have been the opportunities to engage and work with members of the MERIT community. Everyone has been so welcoming and open and expanding my circle of colleagues and collaborators has resulted in scholarship and growth in other areas of relevant to my own career growth."

#### Gregory Spadoni

Associate Professor, School of Rehabilitation Science

**Mentor:** Lawrence Grierson

**Project:** Predictors of Success in a Graduate, Entry-Level Professional Program: From Admissions to Graduation



"The MERIT Faculty Fellowship has allowed me to be engaged with a community of scholars and leaders in education science, who have facilitated my research and professional development. I have had excellent mentorship and opportunities to collaborate and engage both within and beyond the MERIT community. The Fellowship has challenged me and expanded my thinking related to research, scholarship, inquiry, and my MERIT project; it fueled a desire to continue to pursue and expand my education scholarship. In the future, I anticipate and look forward to continued engagement with MERIT beyond the boundaries of the Fellowship."

# MERIT - HSED GRADUATE FELLOWSHIP

The graduate fellowship seeks to: 1) promote health sciences education research; 2) facilitate MERIT scientists' supervision of MSc Health Science Education (HSED) thesis students; and 3) integrate HSED students into the MERIT community.



The fellowship provides a two-year financial stipend to one full-time thesis-stream HSED student. For the duration of the fellowship, the MERIT-HSED fellow will be considered a MERIT Scholar, with commensurate benefits and responsibilities.

## 2023-2024 Fellows

### **Alison Scholes**

**Supervisor:** Meredith Vanstone, PhD (Associate Professor, Family Medicine)

Alison is a current MSc student in the Health Science Education (HSED) program at McMaster University. Alison graduated from Queen's University in 2022, where she received a BSc (Hons) with a major in Life Sciences. During her undergraduate studies, Alison's work as a research assistant at Brantford General Hospital and involvement with the 3 Wishes Program sparked her interest in end-of-life care and ethical dilemmas. Alison is the 2023 recipient of MERIT's graduate student fellowship award. Alison is currently working with Dr. Meredith Vanstone on a thesis project analyzing resource distribution decisions in intensive care during COVID-19 and the issue of moral distress in healthcare providers across Ontario and Alberta.



"Over the last year, I have had a wonderful experience in my role as a MERIT graduate fellow. From facilitating sessions at Norman Education Research Day to getting backstage passes at various MERIT events, the fellowship has enriched my master's experience. I am looking forward to taking advantage of my last semester in this role within the MERIT community!"

### **Jasmin Dhanoa**

**Supervisor:** Elif Bilgic, PhD (Assistant Professor, Pediatrics)

Jasmin is a recent graduate of the Honours Life Sciences program at McMaster University. A significant part of Jasmin's undergraduate education has included teaching and learning through teaching assistantships, peer tutoring, and working as an educational research assistant at the MacPherson Institute. During her final year in undergrad, Jasmin investigated equitable access to learning opportunities in large enrollment programs and facilitated the Institutional Quality Assurance Process (IQAP) for the Life Science program. As a recipient of the MERIT-HSED fellowship award, Jasmin will be pursuing a Master's Degree in the Health Science Education program with an interest in researching expertise in procedural medical skills.



"In just a few months as a MERIT fellow, I have had the pleasure of listening in on multiple seminars and meeting the members of the MERIT community. It is inspiring to see the number of individuals, from diverse backgrounds, engaged in teaching and learning. I look forward to working together to learn more about education research, theory, and innovation!"



## MERIT VISITING PROFESSOR

---

The MERIT visiting professorship invites prominent scholars with expertise relevant to health professions education to engage in a part-time, year-long residency at MERIT. The goal of the visiting professorship is to build a particular knowledge base, skill set or capacity in the MERIT scientists and community.

### 2023 Visiting Professor

#### **Cheryl Poth**

Professor, Faculty of Education, University of Alberta

Dr. Poth's inaugural visit took place in November 2023. The visit consisted of learning and application-based sessions around mixed methods research with a group of MERIT scientists and scholars, and a presentation at the MERIT Educational Rounds.



Cheryl Poth, Ph.D. is a Professor and award-winning instructor in the Centre for Research and Applied Measurement and Evaluation at the University of Alberta, Edmonton. In this role, she has developed and teaches graduate courses in research design and mixed methods research. She was a founding board member of the Mixed Methods International Research Association and served as its fourth President in 2018/19. Her specific research interests include enhancing mixed methods research and teaching quality and collaborative research teams in the fields of education and the health sciences. Dr. Poth has an adjunct appointment in the Faculty of Medicine and Dentistry and serves as the methodologist on several cross-disciplinary research teams. She has published health-related studies in many high impact practitioner and scholarly outlets including the Journal of Mixed Methods Research, BMC Health Service, Academic Medicine, and Medical Teacher.

**Watch Dr. Poth's Rounds presentations below!**

**May 2023**

[What Can Mixed Methods Offer Health Researchers?](#)

**November 2023**

[What Distinguishes a Credible Mixed Methods Study from Other Research Approaches?](#)



## MERIT VISITING SCHOLAR

---

The MERIT Visiting Scholar program gives opportunity to a chosen visiting scholar to engage with membership and participate in activities at MERIT. The visiting scholar has a general interest in health professions education research and has a project or series of activities that benefits from an extended MERIT visit.

### 2023 Visiting Scholar

#### Young Min Kim

Young-Min Kim, MD, MHSED, PhD is a Professor of the Department of Emergency Medicine at The Catholic University of Korea College of Medicine (CUKCM). He is an attending emergency physician, clinician educator, and education researcher. He received a Ph.D. in emergency medicine in 2005. He completed fellowship training in resuscitation research and healthcare simulation at the University of Pittsburgh from 2009 to 2010. He received a master's degree in health science education (MHSED) at the McMaster University School of Graduate Studies in 2023. He has served as the leadership of the START Center for Medical Simulation at the CUKCM. His education research interests include simulation-based learning and assessment in health professions education.



"During my short visit as visiting scholar at MERIT, I participated in many academic events and meetings and had valuable discussions with Canadian clinician educators and education researchers. I observed the PBL tutorials and OSCE of the Michael G. DeGroot School of Medicine at McMaster University and benchmarked the curriculum, programmatic assessment, and competence committee of Emergency Medicine competence-by-design programs at McMaster and Ottawa University. Additionally, I participated in some faculty development courses on CBME and workshops on Mixed Method Research.

After returning to South Korea, the immersive experiences during my time at MERIT will help me plan and implement the CBME programs in UGME and PGME and related education research projects. I would like to thank Dr. Jonathan Sherbino, all MERIT colleagues, and clinical educators at McMaster University for their help and kind assistance, and I expect continued connection and collaboration!"



# PAPERS & PUBLICATIONS

---

\* Names of MERIT membership bolded

**Acai, A.** (2023, Mar). 'I'm not okay either': The mental health and wellbeing of faculty. Society for Teaching and Learning in Higher Education 'Snack Bites.' Retrieved from [https://www.stlhe.ca/wp-content/uploads/2023/03/Snack-Bites\\_Anita-Acai.pdf](https://www.stlhe.ca/wp-content/uploads/2023/03/Snack-Bites_Anita-Acai.pdf)

**Acai, A.** (2023). Future possibilities. In A. Cook-Sather & S. Slates (Eds.), How can students-as-partners work inform assessment? (pp. 218-234). International Journal for Students as Partners, 7(1). <https://doi.org/10.15173/ijasp.v7i1.5453>

**Acai, A.** (2023). The role of groups in assessing learners with specific learning difficulties. Medical Education, 57(6), 498-501. <https://doi.org/10.1111/medu.15068>. Invited commentary.

**Azim A, Sibbald M.** Kocaqi E, Wojkowski S, Uzelli-Yilmaz D, Foohey S, **Sibbald M.** Building a theoretical model for virtual interprofessional education. Medical Education. 2022 Nov;56(11):1105-13.

Azim A, **Sibbald M.** We the system: A call for a perspective shift towards systems agency in trainees. Medical Education. 2023 Oct 3.

Bernard, J., **Sonnadara, R.**, Saraco, A. N., Mitchell, J. P., Bak, A. B., **Bayer, I.**, & Wainman, B. C. (2023). Automated grading of anatomical objective structured practical examinations using decision trees: An artificial intelligence approach. Anatomical Sciences Education.

**Bilgic E,** Turkdogan S, Harley JM. Entrustable professional activity assessments in surgery: competing perspectives, practices, expectations, and future roles? Global Surg Educ. 2023;2(1):22. doi:10.1007/s44186-022-00099-w. 2023

**Bilgic E, van Mil S, Bassilious E.** Current Experiences, Expectations, and Future Roles of Faculty Development. Med.Sci.Educ. (2023). <https://doi.org/10.1007/s40670-023-01853-5>.

Blissett S, Mensour E, Shaw JM, **Martin L,** Gauthier S, **Sibbald M.** Trainee selection of tasks in postgraduate medical education: Is there a role for 'cherry-picking' to optimise learning?. Medical Education. 2023 Jul 1.

Brown MEL, **Chan TM,** Gottlieb M, Patino GA, Roberts LW. Appreciation for Peer Review and Peer Reviewers in Academic Medicine. Academic Medicine. 2023; 98(1), 1-2. Doi: 10.1097/ACM.0000000000005025

Byunghoon (Tony) Ahn, Meagane Maurice-Ventouris, **Elif Bilgic,** Alison Yang, Clarissa Hin-Hei Lau, Hannah Peters, Kexin Li, Deucies Chang-Ou & Jason M. Harley. A scoping review of emotions and related constructs in simulation-based education research articles. Adv Simul 8, 22 (2023). <https://doi.org/10.1186/s41077-023-00258-z>. 2023

**Chan TM,** Li-Sauerwine S, **Monteiro S, Ngo Q.** Vigilance and validity: the necessity of assessment system surveillance to ensure equity in emergency medicine. Canadian Journal of Emergency Medicine. 2023;; 25(6); 453-455. Doi: <https://doi.org/10.1007/s43678-023-00489-z>

**Chan TM, Sherbino J,** Sockalingam S. Blueprints for Connection: A meta-organizational framework for layering theory, philosophy, and practice within Continuing Education in the Health Professions. The Journal of Continuing Education in the Health Professional. Accepted July 27, 2023.

Chang, I., Yang, L., Elma, A., Ritz, S., **Grierson, L.** (2023). A brief report of aspiring medical student perceptions and behaviours concerning research experiences for selection into Canadian medical schools Canadian Medical Education Journal. doi: 10.36834/cmej.76255

- Choo E, Woods R, Walker ME, O'Brien J, **Chan T**. Reliability and utility of the Quality of Assessment for Learning (QuAL) score for evaluating written feedback in anesthesiology postgraduate medical education. *Canadian Medical Education Journal*. Accepted May 5, 2023.
- Cordovani L, Tran C, Wong A, Jack SM, **Monteiro S**. Undergraduate Learners' Receptiveness to Feedback in Medical Schools: A Scoping Review. *Medical Science Educator*. 2023 Sep 1:1-7.
- Correia, RH, **Grierson, L**, Allice, I, Siu, H, **Baker, A**, Panday, J, Vanstone, M. (2022). The impact of 'care of the elderly' certificates of added competence on family physician practice: results from a pan-Canadian multiple case study. *BMC Geriatrics*. 22:840. <https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-022-03523-4>
- Elma, A., Vanstone, M., Allice, I., Barber, C., **Howard, M.**, Mountjoy, M., Siu, H.Y.H., **Baker, A.**, Guscott, J., **Tong, X.C.**, Farag, A., **Grierson, L**. (2023). The Certificate of Added Competence (CAC) credentialing program in family medicine: A descriptive survey of the family physician perspective of enhanced skill practices in Canada. *Canadian Medical Education Journal*. <https://doi.org/10.36834/cmej.77114>.
- Elma, A., Yang, L., Chang, I., **Grierson, L**. (in press). Training in team-based practices: A descriptive analysis of Family Medicine postgraduate site distribution across Canada. *Healthcare Policy*. Accepted on September 13, 2023.
- Ene, I. C., Kocaqi, E., & **Acai, A**. (in press). Learner experiences of preceptor self-disclosure of personal illness in medical education. *Academic Medicine*.
- Gottlieb M, Caretta-Weyer H, **Chan TM**, Humphrey-Murto S. Educator's Blueprint: A Primer on Consensus Methods in Medical Education Research. *Academic Emergency Medicine Education and Training*. 2023; 7(4): e10891. Doi: <http://dx.doi.org/10.1002/aet2.10891>
- Grierson, L., Cavanagh, A.**, Youssef, A., Lee-Krueger, R., McNeill, K., Button, B., Kulasegaram, K. (2023). Inter-institutional data-driven education research: Consensus values, principles, and recommendations to guide the ethical sharing of administrative education data in the Canadian medical education research context. *Canadian Medical Education Journal*. <https://doi.org/10.36834/cmej.75874>.
- Grierson, L.**, Elma, A., Aggarwal, M., Bakker, D., Johnston, N., Agarwal, G. (in press). Understanding the influence of medical education on physician geographic disposition: A qualitative study of family physician perspectives in Canada. *Journal of Evaluation in Clinical Practice*. Accepted for publication on October 10, 2023.
- Grierson, L.**, Mercuri, M., Elma, A., Mahmud, M., Bakker, D., Johnston, N., Aggarwal, M., Agarwal, G., (2023). Associations between education policies and the geographic disposition of family physicians: A retrospective observational study of McMaster University education data. *Advances in Health Sciences Education*. [doi.org/10.1007/s10459-023-10273-4](https://doi.org/10.1007/s10459-023-10273-4).
- Hall AK, Rocca N, Stefan RA, Turner T, Chaplin T, **Chan TM**, McColl T, Wawrykow T, McEwen J, Lee S, Murray H. Navigating gaps in practice: consensus recommendations for educational and support structures for emergency physicians returning from gaps in practice. *Canadian Journal of Emergency Medicine*. Accepted May 28, 2023. Online first June 28, 2023. Available at: <https://doi.org/10.1007/s43678-023-00536-9>
- Harley JM, **Bilgic E**, Gorgy A. Supporting Health Professions Education with Virtual Simulations: The Role of Technical, Educational, and Affective Factors in Assessing Opportunities and Challenges. In: Chye SYL, Chua BL, eds. *Pedagogy and Psychology in Digital Education*. Springer Nature; 2023:197-209. doi:10.1007/978-981-99-2107-2\_11. 2023
- Harley JM, **Bilgic E**, Lau CHH, Gorgy A, Marchand H, Lajoie SP, et al. Nursing Students Reported More Positive Emotions About Training During Coronavirus Disease 2019 (COVID-19) After Using a Virtual Simulation Paired With an In-person Simulation. *Clinical Simulation in Nursing*. 2023;81:101420. doi:10.1016/j.ecns.2023.04.006. 2023

Harley JM, Lau CHH, **Bilgic E**, Muller Moran R, Fried GM, Bhanji F. Identifying Royal College-accredited simulation centre research priorities across Canada. *Can Med Ed J*. Published online March 23, 2023. doi:10.36834/cmej.73911. 2023

**Hosseini S**, Allen L, Khalid F, Li D, Stellrecht E, **Howard M, Chan TM**. Evaluation of Continuing Professional Development for Physicians – Time for Change: A Scoping Review. *Perspectives on Medical Education*. 2023; 12(1): 198–207. DOI: <https://doi.org/10.5334/pme.838>

**Howard M**, Fikree S, Allice I, Farag A, Siu HY-H, **Baker A, Pereira J, Hosseini S, Grierson L**, Vanstone M (2023) Family physicians with certificates of added competence in palliative care contribute to comprehensive care in their communities: a qualitative descriptive study, *Palliative Medicine Reports* 4:1, 28–35, DOI: 10.1089/pmr.2022. 0057. <https://doi.org/10.1007/s40596-023-01825-2>

Hutson JH, Hazra S, Korley V, **Sibbald M**, Huitema A, Froeschl M. A Pulse Check on the Training of Adult Cardiologists in Canada: The Expanding Role of Bootcamps for Training Program Transition. *Canadian Journal of Cardiology*. 2023 Mar 1;39(3):333-7.

Jensen, R. D., Brydges, R., & **Grierson, L.** (2022). Re-examining the integration of routine and adaptive expertise: there is no such thing as routine from a motor control perspective. *Advances in Health Sciences Education*, 1-9. <https://doi.org/10.1007/s10459-022-10163-1>

**Kahlke, R.** Scott, I., Van der Goes, T. & Hubinette, M. (2023). Health advocacy among medical learners: Unpacking contextual barriers and affordances. *Medical Education*, 57(7), 658-667. [Epub ahead of print]. doi:10.1111/medu.15001

**Kahlke, R., Lee, M.** & Eva, K. (2023). Building blocks for critical reviews in health professions education. *Journal of Graduate Medical Education*, 15(2), 186-189. doi: 0.4300/JGME-D-23-00155.1 [Invited].

**Kahlke, R., Lee, M.** & Eva, K. (2023). Critical reviews in health professions education research. *Journal of Graduate Medical Education*, 15(2), 180-185. doi:10.4300/JGME-D-23-00154.1 [Invited]

Khalid F, Wu M, Ting DK, Thoma B, Haas MRC, Brenner MJ, Yilmaz Y, Kim YM, **Chan TM**. Guidelines: The Do's, Don'ts, and Don't Knows of Creating Open Educational Resources. *Perspectives on Medical Education*. 2023;12(1): 25-40. Doi: 10.5334/pme.817

Kok EM, Jarodzka H, **Sibbald M**, van Gog T. Did You Get That? Predicting Learners' Comprehension of a Video Lecture from Visualizations of Their Gaze Data. *Cognitive Science*. 2023 Feb;47(2):e13247.

Kondo A, Nishihara Y, Sato M, **Bilgic E**, Watanabe Y. Impact of the fundamental use of surgical energy certification on surgeons' behavior and awareness of safe use of energy devices: a cross-sectional survey research. *Surg Endosc*. 2023;37(1):241-247. doi:10.1007/s00464-022-09468-4. 2023

LaDonna, K.L., **Kahlke, R.**, Van Der Goes, T. & Hubinette, M. (2023). Grappling with key questions about assessment for the Health Advocate role. *Canadian Medical Education Journal*, 14(1), 80-89. doi:10.36834/cmej.73878 [Invited]

Lai J, Fang E, **Chan TM**, Tekian A, Ibrahim H. Tuition costs of master's degrees in health professions education: A cross sectional analysis. *Academic Medicine*. Accepted May 4, 2023. Online first June 21, 2023. Available at: [https://journals.lww.com/academicmedicine/Abstract/9900/Tuition\\_Costs\\_of\\_Master\\_s\\_of\\_Health\\_Professions.483.aspx](https://journals.lww.com/academicmedicine/Abstract/9900/Tuition_Costs_of_Master_s_of_Health_Professions.483.aspx)

Lee SH, ten Cate O, Gottlieb M, Horsley T, Fournier K, **Chan T**, Tran C, Shea B, Wood TJ, Humphrey-Murto S. Protocol for an extended scoping review on the use of virtual nominal group technique in research. *PloS one*. 2023 Jan 20;18(1):e0280764.

Li A, **Bilgic E, Keuhl A, Sibbald M**. Does your group matter? How group function impacts educational outcomes in problem-based learning: a scoping review. *BMC Medical Education*. 2022 Dec;22(1):1-34.

Li A, Mellon M, **Keuhl A, Sibbald M**. Measuring group function in problem-based learning: development of a reflection tool. *BMC Medical Education*. 2023 Dec;23(1):1-3.

Lin M, Phipps M, **Chan TM**, Thoma B, Nash CJ, Yilmaz Y, Chen D, He S, Gisondi MA. Digital Impact Factor: A Quality Index for Educational Blogs and Podcasts in Emergency Medicine and Critical Care. *Annals of Emergency Medicine*. 2023; 82(1):55-65. Doi: <https://doi.org/10.1016/j.annemergmed.2023.02.011>

Lin S, Zimmerman E, Datta S, Selby M, **Chan TM**, Fant A. Curated Collections for Educators: Nine Key Articles and Article Series for Teaching Qualitative Research Methods. *AEM Education & Training*. 2023; 7(2); 10862. <http://dx.doi.org/10.1002/aet2.10862>

LoGiudice AB, **Norman GR**, Manzoor S, **Monteiro S**. Does a deep learning inventory predict knowledge transfer? Linking student perceptions to transfer outcomes. *Advances in Health Sciences Education*. 2023 Mar;28(1):47-63.

**Martin L**, Blissett S, **Johnston B**, Tsang M, Gauthier S, Ahmed Z, **Sibbald M**. How workplace-based assessments guide learning in postgraduate education: a scoping review. *Medical Education*. 2023 May;57(5):394-405.

McGuire, N., **Acai, A.**, & **Sonnadara, R. R.** (in press). The McMaster Narrative Comment Rating Tool: Development and initial validity evidence. *Teaching and Learning in Medicine*.

McMahon CJ, Sendzikaite S, Jegatheeswaran A, Cheung YF, Majdalany DS, **Sibbald M**, et.al. Managing Uncertainty in Decision-Making of Common Congenital Cardiac Defects (vol32, pg. no: 1705, 2022). *CARDIOLOGY IN THE YOUNG*. 2023 Jan 24.

**Monteiro S, Chan TM, Kahlke RM**. His Opportunity, Her Burden: A narrative critical review of why women decline academic opportunities. *Medical Education*. Accepted May 15, 2023

**Monteiro S**, McConnell MM. Evaluating the Construct Validity of Competencies: A Retrospective Analysis. *Medical Science Educator*. DOI : 10.1007/s40670-023-01794-z.

Morjaria L, Burns L, Bracken K, **Ngo QN, Lee M, Sibbald M**. Examining the Threat of ChatGPT to the Validity of Short Answer Assessments in an Undergraduate Medical Program. *Journal of Medical Education and Curricular Development*. 2023 Sep;10:23821205231204178.

Olmos-Vega, F, Zuleta- García, J. & **Kahlke, R.** (Accepted April 2023). The unseen role of licenced practice nurses in medical students' workplace learning. In A. Malik, L. Varpio & A. MacLeod (Eds.) *A cast of thousands: The invisible workers of medical education*.

Owais, S., Saperson, K., Levinson, A. J., Payne, S., Lamont, R., Brown, M. V., & **Acai, A.** (2023). Evaluation of a blended learning electroconvulsive therapy curriculum for psychiatry residents to treat depression in older adults. *Academic Psychiatry*. Advance online publication.

Paterson Q, Alrimawi H, Sample S, Bouwsema M, Anjum O, Vincent M, Cheung WJ, Hall A, Woods R, Martin LJ, **Chan TM**. Examining enablers and barriers to Entrustable Professional Activity acquisition using the Theoretical Domains Framework: A qualitative framework analysis study. *AEM Education and Training*. 2023;7(2);e10849. Doi: <http://doi.org/10.1002/aet2.10849>

Petrosoniak A, **Sherbino J**, Beardsley T, Bonz J, Gray S, Hall AK, Hicks C, Kim J, Mastoras G, McGowan M, Owen J. Are we talking about practice? A randomized study comparing simulation-based deliberate practice and mastery learning to self-guided practice. *Canadian Journal of Emergency Medicine*. 2023 Jun 16:1-9.

Preiksaitis C, Kryzaniak S, Bowers K, Little A, Gottlieb M, Mannix A, Gisoni MA, **Chan TM**, Lin M. Characteristics of Emergency Medicine Residency Programs with Unfilled Positions in the 2023 Match. *Annals of Emergency Medicine*. Accepted June 1, 2023.

Ramelli S, Lal S (co-first author), **Sherbino J**, Dickson G, **Chan TM**. LEADS+: An integrative review proposing a healthcare leadership development model. *Medical Education*. 2023; 57(9); 781-879. Doi: doi/10.1111/medu.15062

Serrano, H., Andrea, S., Lopes, J., Harms, S., Saperson, K., & **Acai, A.** (2023). A qualitative investigation of burnout, well-being, and resilience among faculty and residents in a Canadian psychiatry department. *Academic Psychiatry*, 47(2), 159-163. <https://doi.org/10.1007/s40596-023-01745-1>

**Sherbino, J., Norman, G.,** Whyte, R., & Servant-Miklos, V. (2022). Problem-based learning at McMaster's Michael G. DeGroot School of Medicine: Looking back on 50 years. In A. de Bie & C. A. Gris  (Eds.), *Where learning deeply matters: Reflections on the past, present, and future of teaching at McMaster University* (Chapter 7). Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching, McMaster University.

**Sibbald M**, Buccola J, Mitchell H, et al. TCT-265 Impact of Artificial Intelligence-Enhanced OCT Software on Percutaneous Coronary Intervention Decisions. *J Am Coll Cardiol*. 2023 Oct, 82 (17\_Supplement) B104. <https://doi.org/10.1016/j.jacc.2023.09.272>

**Sibbald M**, Cioffi GM, Pinilla N, Sheth T. TCT-198 Does Artificial Intelligence Enhance Physician Interpretation of Optical Coherence Tomography: Insights From Eye Tracking. *Journal of the American College of Cardiology*. 2023 Oct 24;82(17):B76-7.

**Sibbald M**, Last N, Keuhl A, Azim A, Sheth U, Khalid F, Banji F et al. Challenges facing standardized patients representing equity-deserving groups: insights from healthcare educators. *Medical Education*. 2023 Apr 5.

**Sibbald M**, Pugh D, Sherbino J, Morin M, **Norman GR, Monteiro S**. Does allowing access to electronic differential diagnosis support threaten the reliability of a licensing exam?. *Medical Education*. 2023 Mar 1.

Smee S, Coetzee K, Bartman I, Roy M, **Monteiro S**. OSCE Standard Setting: Three Borderline Group Methods. *Medical Science Educator*. 2022 Nov 16:1-7.

Stovel RG, Dubois D, **Chan TM**, Thoma B, Ho K. Virtual Care and Telemedicine in CanMEDS 2025. *Canadian Medical Education Journal*. 2023; 14(1); 22-26. DOI: <https://doi.org/10.36834/cmej.75439>

Tenorio F, Siegmund E, Oxland R, **Sherbino J, Chan T**. Use of Social Media and Free Open Access Medicine (FOAM) for Continuing Education in Emergency Nursing: A Scoping Review. *Canadian Journal of Emergency Nursing*. Accepted October 14, 2023.

Thabane, A., Busse, J. W., **Sonnadara, R.,** & Bhandari, M. (2023). Investigating divergent thinking and creative ability in surgeons (IDEAS): a survey protocol. *BMJ open*, 13(4), e069873.

Thoma B, Karwowska A, Samson L, Labine N, **Waters H**, Giuliani H, **Chan T**, Atkinson A, Constantin E, Hall A, Gomez-Garibello C, Fowler N, Tourian L, Frank J, Anderson R, Snell L, Van Melle E. Underrepresented concepts in the CanMEDS physician competency framework. *Canadian Medical Education Journal*. 2023; 14(1); 4-12. DOI: <https://doi.org/10.36834/cmej.75591>

Tolsgaard, M. G., **Grierson, L.** (2023). The AI and I: A collaboration on competence. *Annals of Surgery Open* 4(1):p e271. DOI: 10.1097/AS9.0000000000000271.

Tran A, Wallner C, de Wit K, G rin-Lajoie C, Ritchie K, Mercuri M, Clayton N, Boulos ME, Archambault P, Schwartz L, Gray SH, **Chan TM**. Humans not Heroes: Canadian emergency physician experiences during the early COVID-19 pandemic. *Emergency Medicine Journal*. 2023; 40(2), 86-91. Doi: <http://dx.doi.org/10.1136/emered-2022-212466>

Tsang M, **Martin L**, Blissett S, Gauthier S, Ahmed Z, Muhammed D, **Sibbald M** et al. What Do Clinicians Mean by “Good Clinical Judgment”: A Qualitative Study. *International Medical Education* [Internet]. 2023 Jan 11;2(1):1–10. Available from: <http://dx.doi.org/10.3390/ime2010001>

Vanstone, M., **Cavanagh, A.**, **Molinaro, M.**, Connelly, C., **Bell, A.**, Mountjoy, M., Whyte, R., **Grierson, L.** (2023). How medical learners and educators decide what counts as mistreatment: A qualitative study. *Medical Education*, 57(10), 910-920. <https://doi.org/10.1111/medu.15065>

Varpio L, **Sherbino J**. Demonstrating causality, bestowing honours, and contributing to the arms race: Threats to the sustainability of HPE research. *Medical Education*. 2023 Jun 7.

Wang A, de SA D, Darie S, Zhang B, Rockarts J, Palombella A, Nguyen L, Downer N, Wainman B, **Monteiro S**. Development of the McMaster Embalming Scale (MES) to assess embalming solutions for surgical skills training. *Clinical Anatomy*. 2023 Mar 10.

Westcott S, Simms K, van Kampen K, Jafine H, **Chan TM**. Off-Script, Online: Virtual Medical Improv Pilot Program for Enhancing Well-being and Clinical Skills Among Psychiatry Residents. *Academic Psychiatry*. Accepted March 24, 2023. Online first April 26, 2023. Doi: <https://doi.org/10.1007/s40596-023-01778-6>

Winters RC, **Chan TM**, Barth B. The Five Hats of Effective Leaders: Teacher, Mentor, Coach, Supervisor, and Sponsor. *BMJ Leader*. Accepted June 8, 2023. Online first June 21, 2023. Available at: <https://doi.org/10.1136/leader-2022-000733>

Winters RC, **Chan TM**. Reconciling Resident Feedback: A Disorienting Dilemma of Adult Development. Invited Commentary (Non-Peer Reviewed). *Canadian Journal of Emergency Medicine*. 2023; 25; 105-107. Doi: 10.1007/s43678-023-00456-8

Worster A, Lang E, Thombs BD, Kimber M, Ramsden K, MacMillan H, **Sherbino J**. Universal screening in the emergency department for intimate partner violence would consume scarce resources without improving patient well-being. *Canadian journal of emergency medicine*. 2023 Jun;25(6):462-4.

Wyrwich KW, **Norman GR**. The challenges inherent with anchor-based approaches to the interpretation of important change in clinical outcome assessments. *Quality of Life Research*. 2023 May;32(5):1239-46.

Yilmaz Y, Chan MK, Richardson D, Atkinson A, Bassilious E, Snell L, **Chan TM**, for the ICBME collaborators. Defining new roles and competencies for administrative staff and faculty in the age of Competency-Based Medical Education. *Medical Teacher*. 2023; 45(4):396-403. Doi: <https://doi.org/10.1080/0142159X.2022.2136517>

Yilmaz Y, **Monteiro S**, **Chan T**, Chandross D, **Lal S**, Munford V. Chapter 9: I Would Rather Be Playing: Enhancing Faculty Development Through Gamification. Book Chapter. In: *Innovative Digital Practices and Globalization in Higher Education*. 2023. Doi: 10.4018/978-1-6684-6339-0.

Young M, Szulewski A, Anderson R, Gomez-Garibello C, Thoma B, **Monteiro S**. Clinical Reasoning in CanMEDS 2025. *Canadian Medical Education Journal*. Online first.

Zuckerman M, Pardis P, Horsley T, Dhani B, Yilmaz Y, Gottlieb M, Thoma B, **Chan TM**, Gottlieb M, The Rebel, the Professor, and the Entrepreneur: Qualitative Study to Explore Creator Stories of FOAMed. *Academic Emergency Medicine Education and Training*. 2023;7(4); e10892. doi: <http://dx.doi.org/10.1002/aet2.10892>



**McMaster Education Research,  
Innovation & Theory**

100 Main Street West  
David Braley Health Sciences Centre  
Hamilton, Ontario, Canada

**[merit@mcmaster.ca](mailto:merit@mcmaster.ca)**

905-525-9140 x23114

**[healthsci.mcmaster.ca/merit](https://healthsci.mcmaster.ca/merit)**

