

The logo consists of a stylized 'M' shape formed by three overlapping, upward-pointing chevrons. The top chevron is maroon, the middle is white, and the bottom is grey.

MERIT

McMaster Education Research, Innovation & Theory

2020 ANNUAL REPORT



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MESSAGE FROM THE ASSISTANT DEAN



Jonathan Sherbino

2020... a hard year. The COVID-19 pandemic had a profound impact on our community, our research, our patients and our families. I am proud of how our members, scholars and scientists rose to this challenge. We transitioned to a virtual community of practice, seeking connectivity despite social distancing (see, for example, the virtual **Norman Education Research Day** on page 29).

We continued – as possible – our research, including a faculty-wide programmatic evaluation of the impact on the pandemic on health professions education (see, for example, the **Pandemic Education Adaptations Research** program on page 31). Yet, things are not the same. We are grateful for the efforts of front-line workers and health professionals, and we remember the people who died in Hamilton.

Black Lives Matter. As a community we are challenged to confront institutional and structural anti-Black racism. We must confront anti-Indigenous racism. MERIT is accountable to our local community. We continue to learn and to seek ways to address oppression and to work towards equity, diversity and inclusion in our research and our programming. MERIT is applying to join the Hamilton Centre for Civic Inclusion. The 2021 **PSI – MERIT Conference** on academic mentoring adopts a lens addressing inequity and injustice. The 2021 **Sibley Lecture** by Dr. Marcia Anderson will challenge our community to address racism and inequity towards First Nations in our curricula and education scholarship.

Within this difficult time, there are moments of celebration. MERIT continues to grow. We are **recruiting two scientists** to our current compliment of nine. Our **seven scholars** and **41 members** are supported by **8 staff members**. We also welcomed **two post-doctoral fellows** into the MERIT community.



MERIT's Mission:
Growing a community of clinicians and scientists to advance health professions education through research and applied science.

In this annual report you will catch a glimpse of the work and activities of MERIT. Our **Rounds presentations**, **thinkTank consultations**, **open-access education research course**, and MERIT Maps **interactive research database** are only a small list of the activities that connect our community.

MERIT continues to support the educational work of schools and departments. MERIT collaborates with the Centre for Simulation-based Learning, Program for Faculty Development, AFC Clinician Educator program, Health Sciences Education graduate program, Department of Family Medicine Medical Education Research meeting, Insight U, and the MacPherson Institute.

You can discover more about us at our website: merit.mcmaster.ca.

Follow us on Twitter: [@MERIT_McMaster](https://twitter.com/MERIT_McMaster). Browse our Rounds archive on YouTube: <https://bit.ly/MERITYT>.

Sign up for our newsletter at: merit@mcmaster.ca

If you haven't already, connect with us in 2021.

Best Wishes,

At MERIT, we produce evidence to develop health professional expertise.

We do this by advancing:

RESEARCH

Research on education in clinical, digital and simulated learning environments.

INNOVATION

Innovative education designs and policies.

THEORY

Theories of social, professional, and cognitive skill development for high quality healthcare.

SCIENTISTS

Dr. 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), the Program for Community and Rural Education (Mac-CARE), and the Undergraduate MD Program 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 concurrent postdoctoral fellowships with the Toronto Rehabilitation Institute, Sick Kids Learning Institute, Lawrence S. Bloomberg School of Nursing, and The Department of Occupational Therapy and Occupational Science at the University of Toronto. Lawrence serves as Assistant Dean of McMaster's Health Sciences Education Graduate Program and on the CFPC's Program Evaluation Advisory Group for the Triple-C Curriculum.

Among Lawrence's most relevant scholarship involves 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. Lawrence has secured Social Sciences and Humanities Research Council (SSHRC) funding, which will be used to mobilize a pan-Canadian working group of representatives from undergraduate and post-graduate training institutions, data stewards, regulatory authorities, and student and resident organizations towards the development of a consensus statement for the ethical use of inter-institutional medical education data and a framework for data standard harmonization across the country. Dr. Grierson's partners in this work include the Postgraduate, Undergraduate, and Medical Admissions Councils of the Ontario Faculties of Medicine; Association of Faculties of Medicine in Canada; Medical Council of Canada; College of Family Physicians of Canada; Royal College of Physicians and Surgeons of Canada; and the Ontario Physician Human Resource Data Centre Steering Committee.

As a member of the Department of Family Medicine, 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 care across the country. Upon completing a CFPC-sponsored multiple-case study of the impact that the Certificates of Added Competence program is having on the delivery of family medicine in Canada, Lawrence is now embarking on new research aimed at determining the relationships between family physicians' geographic disposition before medical school, during training, and when in independent practice. This research uses regression modeling techniques alongside qualitative methodology to determine the degree to which regional selection policies and distributed training practices influence physician practice choices. Portions of this work are supported through funding from the Academic Family Medicine Associates and the Faculty of Health Sciences Education Scholarship Fund.

The COVID-19 pandemic context has also created new research avenues for Dr. Grierson. For instance, in the spring of 2020, McMaster University eliminated its medical school admissions interviews and implemented a staged system that included a lottery as part of its response. This decision was met with equivocal criticism: commended because its 'equal chance' proposition offset implicit forms of unwarranted bias; condemned because it meant that aspiring physicians felt they lost agency in the selection process. Lawrence and colleagues are now leading a faculty-wide evaluation of pandemic-related education adaptations, such as this one, with the goal of generating knowledge that will inform meaningful quality improvement activities. Furthermore, Dr. Grierson is coordinating with the AFMC Network on Admissions to conduct pan-Canadian research concerned with understanding the way medical schools balanced institutional values of meritocracy and equity when reforming processes in the face of the pandemic. This work has been put forward to the SSHRC Insight and Future Skills Centre funding programs for their consideration, and aims to deliver evidence-informed suggestions that are likely to positively impact the resilience of institutional values in admissions policies. Also, when time permits, Lawrence still enjoys research on the acquisition of precision skills. Over the last year, he has contributed to three new studies that support a multiple process model of sensory-motor information processing. This work extends Lawrence's early career research on video-based internet-mediated technology forms of skill practice; a model of simulation-based learning certain to have new relevance in the pandemic context.

SCIENTISTS



Dr. Sandra Monteiro, PhD
Associate Professor, Health Research
Methods, Evidence and Impact

Dr. Sandra Monteiro is a Faculty of Health Sciences MERIT Scientist appointed to the Departments of Health Research Methods Evidence and Impact, Anesthesiology and Radiology. Sandra has a second appointment to the Centre for Simulation Based Learning as the Assistant Director of Research. Sandra received her PhD in Psychology from McMaster University in 2013 and currently manages a successful international collaboration investigating theoretical models of cognitive processes behind clinical reasoning with application for education and assessment. In 2020, Sandra received the Excellence in Graduate Student Supervision Award from the Faculty of Health Science.

Sandra is seconded to the Touchstone Institute as the Director of Research and Analysis where she oversees the design and quality assurance of high stakes competency assessments for internationally educated health professionals seeking entry to practice in Canada. With her team at the Touchstone Institute, she develops research initiatives to understand best practices for assessment and standard setting.

In addition to her primary research program on clinical reasoning, Sandra has expertise in the area of competence assessment and best practices for education strategies. Sandra's contribution to these programs is mainly as a content expert on theories of learning, cognition more broadly, data analysis and research design. Within her main research focus on clinical reasoning, she is part of an internationally recognized research collaboration with Drs. Geoff Norman, Matthew Sibbald and Jonathan Sherbino. This research collaboration extends to international research partners including Dr. Jonathan Ilgen from the University of Washington and Drs. Henk Schmidt and Laura Zwaan from Erasmus University. Locally, with methodological expertise from Dr. Meredith Vanstone, this group has conducted a study to explore the personal reflections of primary care physicians on their own diagnostic errors, as well as the perceived impact on their approaches to education with medical residents. This project has produced data that offers incredible insights about how physicians struggle with their mistakes and how they may pass on those internal struggles to their trainees. These data are still being explored and will certainly inform strategies for error reduction and correction.

Sandra is currently working on two projects which will contribute to the understanding of expert medical diagnosis and the potential for new learning techniques in medical education to reduce diagnostic errors. In the first project, trainees and faculty will view images of ECGs and x-rays for very brief moments of time (less than a second). The images will include exemplars of certain medical diagnoses as well as normal exemplars. The study participants will then be assessed, allowing us to determine if their visual diagnostic skills have improved as a result of this intervention.

The second project investigates the influence of individual variation in the capacity for spatial processing and right-left discrimination. Right-left discrimination is a complex neuropsychologic process that utilizes several higher functions, including visuospatial processing, memory, language and integration of sensory information. It is possible that errors of right-left discrimination occur more commonly in health care than is reported. This study will utilize the Bergen Left-Right Discrimination (BLRD) test to measure participants' ability to rapidly perform spatial processing and whether their ability can improve with time and practice.

SCIENTISTS

Dr. 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



Dr. Jonathan Sherbino, MD
Professor, Medicine

Dr. Sherbino is the assistant dean of MERIT. He is an emergency physician and trauma team leader. He is a full 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, and co-founder of the Royal College Area of Focused Competence – Clinician Educator. He is the co-host of the Key Literature in Medical Education (KeyLIME) podcast, which has an audience in 40 countries around the world.

A multi-year project exploring how Canadian key opinion leaders describe the philosophy and practice of competency-based medical education (CBME) was completed this year with colleagues from McMaster, The University of British Columbia and University of Toronto. A qualitative thematic analysis revealed a marked heterogeneity in how CBME is conceptualized with implications for the fidelity of CBME implementation. This project suggests that leaders, educators and researchers should clearly articulate their starting positions and associated assumptions about CBME; there is no common starting point. Unacknowledged differences in definitions of CBME disrupts dialogue.

The collaborative research program in clinical reasoning (with Drs. Sandra Monteiro, Geoff Norman and Matt Sibbald) received a Royal College Medical Education Research Grant to explore the “wisdom of crowds” to improve diagnosis. The randomized, controlled clinical trial will investigate whether a group improves or impairs clinical diagnosis. The findings will influence the structure of healthcare teams and the clinical consultation process. Enrollment is ongoing.

Finally, a series of studies with collaborators from the University of Southern California and Rush University explore how physicians-in-training use podcasts as an emerging educational tool. A qualitative study identified features that build trust between a host and audience to influence adoption of information presented in the podcast. A randomized controlled trial investigated the impact of driving while listening to a podcast versus undistracted listening. A third project, paused by the COVID-19 pandemic, involves the use of an immersive driving simulator to measure driving safety and knowledge retention while listening to a podcast and navigating a simulated city. Hopefully, this collaboration with the Department of Psychology, Neuroscience and Behaviour can resume in the near future.

SCIENTISTS

Dr. Matthew Sibbald, MD Associate Professor, Medicine



Dr. Matt Sibbald is a scientist at McMaster Education, Research, Innovation and Theory program with interests in simulation-based education, competency-based education, clinical reasoning and intravascular imaging. 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, after completing residencies in internal medicine and cardiology. He finished a fellowship in interventional cardiology at University Health Network 2013. Dr. Sibbald completed a Master in Health Professions Education in 2011 and a PhD in 2013 – both from Maastricht University, Netherlands. He is currently the Director of the Centre for Simulation Based Learning in the Faculty of Health Sciences, the Cardiology Residency Program Director at McMaster University, and Chair-Elect of the AFC Committee for Intervention Cardiology at the Royal College of Physicians and Surgeons of Canada.

Dr. Sibbald’s ongoing projects investigate how technology may reduce diagnostic errors and the assessment of competency based medical education.

Artificial intelligence for diagnosis: Matt is currently leading a multicenter project investigating the role of artificial intelligence in the form of electronic differential diagnostic support in reducing diagnostic error. The ability of an electronic differential diagnosis support system (EDS) to reduce diagnostic error may depend on three items: (i) when it is used in the diagnostic process, (ii) the degree of expertise of the clinician using the EDS and (iii) its acceptability to the user. The co-investigators for this project include Drs. Jonathan Sherbino, Geoff Norman and Sandra Monteiro (McMaster University), Charles Friedman (University of Michigan) and Jonathan Ilgen (University of Washington).

Competency based assessment: Matt is the principal investigator on a multicenter grant exploring “Translational Activities” in developing assessment programs for Competency Based Medical Education. Competency Based Medical Education necessitates the robust translation of outcome frameworks (i.e., lists of entrustable professional activities and milestones) to assessment plans. How educators are or should be “translating” outcome frameworks to assessment plans is unclear, yet vital for assessment quality. This grant investigates threats to validity using the lenses of workplace-based learning and Callon’s theory of sociologic translation.

ADJUNCT SCIENTISTS



Dr. Teresa Chan, MD
Associate Professor, Medicine

Teresa Chan is an adjunct MERIT Scientist. Her primary appointment is as an associate professor within the Department of Medicine's Division of Emergency Medicine and she is also cross appointed the new Division of Education & Innovation. Dr. Chan was appointed to the role of Assistant Dean of Faculty Development for the Faculty of Health Sciences in the Fall of 2019. She has also continued in her role as the director of the McMaster Clinician Educator Area of Focused Competency Program, the first in Canada. She received her Masters of Health Professions Education from the University of Illinois at Chicago (UIC).

Dr. Chan serves on the editorial boards of several journals including: Journal of Graduate Medical Education, AEM Education & Training, 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. She is exceedingly proud of this virtual research group, which has just published their 21st paper in a program of research that started only five years ago.

Dr. Chan's current programs of research include: contextualized clinical decision making; improving knowledge translation using education theory and innovation. Along with colleagues in other areas, Teresa has been working with a number of qualitative projects about how physicians are using social media and incorporating it into their academic lives. With the support of the PSI Graham Farquharson Knowledge Translation Fellowship, Teresa is excited that her team in this area has had several papers now accepted and published on this topic. In the next year Dr. Chan will be working with MERIT Postdoctoral Fellow Dr. Yusuf Yilmaz and HSED Masters Thesis student Victoria Tran to build curricular content for helping others to improve knowledge translation in the age of social media.

Finally, Dr. Chan has continued to work in the area of competency-based medical education (CBME). She has been working with a team of colleagues to explore the application of natural language processing in the age of CBME. This team is proud to report that they received a grant from the Canadian Association of Emergency Physicians to pursue this program of research. With other colleagues at MERIT, Dr. Chan has also won a highly competitive CanMEDS/AMS grant from the Royal College of Physicians and Surgeons of Canada (RCPSC) to evaluate how CanMEDS is perceived by front line faculty within the new Entrustable Professional Activities.

ADJUNCT SCIENTISTS

Dr. Ranil Sonnadara, PhD
Associate Professor, Surgery



As Director of the Office of Education Science for the Department of Surgery, Ranil'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.

Musician Social Connectedness during COVID:

The Brott Music Festival is an annual collection of multidisciplinary and educational concerts in Hamilton which are embedded in an intensive training program for new professional musicians. Due to the COVID-19 pandemic, the 2020 festival is being held virtually. This provides a unique opportunity to explore the effects that the pandemic and the resultant social distancing and performance restrictions have had on musicians' social connectedness and mental well-being. This research has the potential to identify the need for and types of support that can be implemented for young musicians to help improve their psychological wellbeing during and after the pandemic, and is part of a broader program of research examining the role of music on our mental well-being.

ADJUNCT SCIENTISTS



Dr. Meredith Vanstone, PhD
Associate Professor, Family Medicine

Meredith Vanstone is an Associate Professor in the Department of Family Medicine, and an adjunct scientist in MERIT and the Centre for Health Economics and Policy Analysis. Her training includes a PhD in Health Professions Education (Western University, 2012) and postdoctoral training in Health Policy (McMaster, 2013). Her research program examines patient experiences of socially and ethically complex aspects of healthcare, with an eye to improving those experiences through policy and educational intervention.

"Since my doctoral work, I have been interested in socially and ethically complex issues in pregnancy. My work with prenatal testing for disability concluded in 2020 with the publication of a longitudinal examination of the implementation of non-invasive prenatal testing in Ontario (Burgess et al, 2020) and in Lebanon and Quebec (Haidar et al 2020). Recent work in this area includes an examination of the challenges of healthy gestational weight gain (Vanstone et al 2020a, McDonald et al, 2020, Grabovac et al 2020) and access to midwifery care for women of low SES (Nussey et al, 2020, Darling et al 2020a, Darling et al 2020b). The next step in this research program is a new project about how pregnant people make decisions about cannabis use in pregnancy and lactation, and prenatal clinician perceptions of counselling challenges about cannabis use.

2020 saw the conclusion of a multi-site program evaluation project that I co-led with Dr. Deborah Cook. Funded by the Greenwall Foundation, we evaluated the implementation of the 3 Wishes Project (3WP) at four sites across North America. 3 Wishes Project is a simple clinical intervention designed to promote human connection and compassion at the end of life. By eliciting and implementing wishes that honour the identity and the legacy of the dying patient, 3WP eases the grief of families and helps clinicians re-identify and connect with the meaningfulness of the work they do. We published the results of our evaluation in *Annals of Internal Medicine* (Vanstone et al 2020b), with 10 other publications this year detailing, for example, the way that 3WP fosters an environment of organizational compassion (Vanstone et al 2020c) by empowering frontline clinical staff to adapt to local needs and resources (Vanstone et al 2020d). This collective body of work has received significant media coverage, with the findings of the main paper (Vanstone et al 2020b) covered by 36 news outlets.

I'm very proud of the work I have done with students and trainees over the past several years, supervising 11 graduate and 2 undergraduate students as primary supervisor and serving on 13 additional thesis committees. In 2019-2020, 3 of my trainees won CIHR doctoral scholarship awards. This commitment to mentorship has been recognized with by the 2020 Meridith Marks Award for New Educators from the Canadian Association of Medical Educators (CAME), as well as a 2019 Early Career Medical Educator Champion Award and a 2018 Faculty of Health Sciences award for Excellence in Graduate Supervision.

As PI, I am leading a CIHR funded grant on the topic of decision-making about cannabis use during pregnancy and lactation, from the perspective of pregnant people and prenatal clinicians. With a team of multi-disciplinary collaborators in Canada and the United States, we are conducting two systematic reviews and collecting primary qualitative data from pregnant and breastfeeding people and their clinicians.

As Co-PI with Dr. Julia Abelson (Department of Health Research Methods, Evidence & Impact), I lead a CIHR-funded project grant on the topic of patient engagement within health systems decision-making. With a team of co-investigators spanning coast-to-coast, this McMaster-led initiative will examine the health human resource of patient partners and advisors within health systems. We are completing a systematic review and have just disseminated a national survey of patient partners.

As Co-PI with Dr. Melissa Kimber (Department of Psychiatry, Neuroscience & Behaviour) and Dr. Donna Stewart (University of Toronto), I am leading an evaluation and implementation of education materials designed to assist health and social service providers to recognize and respond to those who have experienced family violence. We have completed an Environmental Scan of existing resources and are in the midst of collecting data from physician and social workers and trainees."

ADJUNCT SCIENTISTS

Dr. Lara Varpio, PhD Adjunct Assistant Clinical Professor, Medicine



Dr. Lara Varpio is Professor of Medicine, and Associate Director of Research for the Center for Health Professions Education at the Uniformed Services University of the Health Sciences (USUHS). Dr. Varpio spent the first 6 years of her career at the University of Ottawa, Canada before moving to Washington DC, USA to join USUHS.

Dr. Varpio's research uses qualitative methodologies and methods, integrated with theories from the Social Sciences and Humanities, to investigate questions relating to how individuals (e.g. clinicians, patients, researchers, etc.) collaborate and perform in teams and organizations. Her most recent work is related to: (i) collaboration principles of military interprofessional healthcare teams); and (ii) health professions education scholarship units and scholars (e.g. the factors affecting the success of units in Canada, the US, Australia, and New Zealand; the careers of early career medical educators). Dr. Varpio also works extensively with individual health professions educators from several specialties (e.g. surgery, internal medicine, nursing, social work, etc.) and in a wide range of topics. Dr. Varpio is internationally recognized for her expertise in qualitative research methods and methodologies (e.g. from grounded theory to autoethnography, and from visual rhetorical discourse analysis to think-aloud interviews) and in theory (e.g., Actor Network Theory, New Institutionalism, Dialectics, etc.).

Dr. Varpio has secured over \$5.5millionUSD in research grants (nearly \$3million as Principal Investigator), has given +120 peer-reviewed conference presentations, disseminated +120 peer-reviewed publications, and given keynote talks at many international conferences in medical education. She has led invited sessions at the annual conferences for the Association for Medical Education in Europe (AMEE), the Association of American Medical Colleges (AAMC), and the International Conference on Residency Education (ICRE). She has given invited talks at hospitals and medical schools across America and around the world (e.g., Australia, Canada, and Taiwan).

Dr. Varpio has won many awards over her career. Most recently, she was selected by the Fulbright Scholarship committee to mentor and host a Fulbright Scholar award winner from Australia—an honor she gladly accepted. In 2019, she was selected as one of twelve inaugural Karolinska Fellows. She was also selected as the Early Career Medical Educator's of Canada's 2020 award winner for their mentorship award. Other awards recognize individual manuscripts including, for instance, having two different 2017 publications be among the 20 top downloaded articles in their respective journals (i.e., *Medical Education* and *Perspectives on Medical Education*).

Dr. Varpio is an Associate Editor for *Perspectives on Medical Education* and *Advances in Health Sciences Education*. She has been an invited editor for special issues of *Academic Medicine* and *Perspectives on Medical Education*, and two special manuscript series in the *Journal of Graduate Medical Education*. She has served on the Association of American Medical Colleges' (AAMC) national Medical Education Meeting planning committee since 2013 (and will be Chair for 2019-2021). She is past-Chair of the Association for Medical Education in Europe's (AMEE) grant committee and sits on the Royal College of Physicians and Surgeons of Canada's (RCPSC) grant committee. In 2017, Dr. Varpio joined the RCPSC's Key Literature in Medical Education (KeyLIME) podcast (with followers in +80 countries and +120,000 downloads annually).

SCHOLARS

Ellen Amster, PhD
Associate Professor,
Family Medicine & History



Ellen Amster is the Jason A. Hannah Chair in the History of Medicine at McMaster University and Associate Professor in the Departments of Family Medicine and History. She received her B.A. from the University of Chicago and Ph.D. from the University of Pennsylvania. A historian of North Africa, France, and medicine, her research on science in the French-Islamic colonial encounter was first a book, *Medicine and the Saints: Science, Islam, and the Colonial Encounter in Morocco, 1877-1956* (University of Texas) and now extends to an interdisciplinary global health field course she leads in the determinants of women's health for undergraduate students in Morocco.

She is the Principal Investigator of the Morocco-Canadian Network in Maternal and Infant Health, a project funded by the Canadian Institute for Research on Health. Her research has also received funding from Fulbright, SSRC, AIMS, CIHR, and the Government of France. Current research interests include Islamic biopolitics, globalizing the history of public health, and North African gender, religious, and race identities. She has created a resource for all researchers in the history of medicine and medical humanities that includes worldwide library, archival, museum, grants and digital collections, the History of Medicine and Medical Humanities Research Portal.

Emily Block, MSc
CPD Curriculum Developer &
Education Research Lead
Continuing Health Sciences
Education



Emily Block completed her MSc of Health Science Education from McMaster University and a BSc in Medical Sciences from Brock University. At McMaster University, she works as a curriculum developer and education research lead in Continuing Health Sciences Education. Contributions to medical education include: clinical environment's impact on clinical learning and teaching; needs assessment methods; data-driven learning; patient voice in curriculum design; design thinking in medical education.

Daniel Brandt Vegas, MD
Associate Professor,
General Internal Medicine



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 sanokondu (www.sanokondu.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.

SCHOLARS

Leslie Martin, MD
Assistant Professor,
General Internal Medicine



Leslie Martin completed a Masters in Health Professions Education at Maastricht University. Dr. Martin is currently the Deputy Program Director for the Core Internal Medicine Program, and is involved in the McMaster University Clinical Educator Program as the Assessment Unit Lead. Her research interests include applying qualitative methodology to explore coaching, feedback and 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 Division of General Internal Medicine at McMaster University. Lastly, she has a clinical and research interest in addictions medicine, and is co-chair of the Inpatient Addictions Medicine Service at St. Joseph's Healthcare Hamilton and Hamilton General Hospital.

Som Mukherjee, MD
Associate Professor,
Oncology



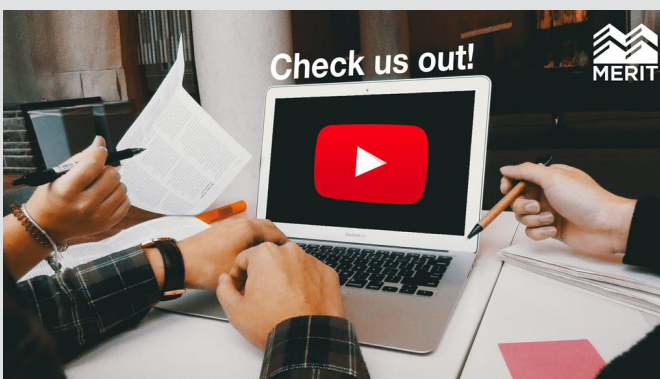
Dr. Som Mukherjee is an Associate Professor in the Department of Oncology, Division of Medical Oncology at McMaster University. He completed a two year oncology research fellowship combined with a Masters in Health Research Methodology at McMaster University. He recently completed a 9+ year term as program 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 examination (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.

Mohammad Zubairi, MD
Assistant Professor, Pediatrics



Dr. Zubairi is a Developmental Pediatrician at Ron Joyce Children’s Health Centre & Assistant Professor in the Department of Pediatrics at McMaster University. He is the Division of Developmental Pediatrics Educational Resource Person (ERP), and also lead for training and education with the McMaster Autism Research Team (MacART). He is also a member of the Faculty Affairs Equity, Diversity and Inclusion (EDI) Training and Professional Development Working Group in the Faculty of Health Sciences, and member of the Creativity and Humanism team with the Program for Faculty Development. 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.

Did you know MERIT has a YouTube channel?



The MERIT YouTube channel houses the Rounds archives, scientist profiles, recorded plenary presentations and more.

Big thank you to MERIT Multimedia Assistant, Aljeena Qureshi, for her hard work filming and editing the content!

 [Subscribe](#)

MEMBERS

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Family Medicine

X. Catherine Tong, MD

Assistant Clinical Professor,
Family Medicine

Hugh Traquair, MD

Fellow, General Internal Medicine

Erin Williams, MD

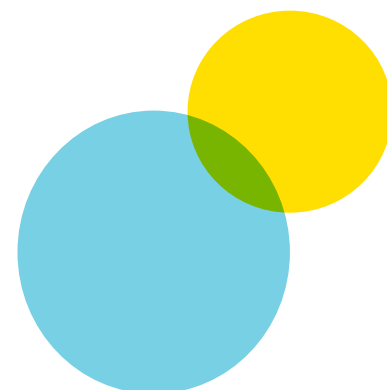
MSc Student,
Health Science Education

Jason Woodfine, MD

Resident, General Internal Medicine

Marco Zaccagnini, MSc

PhD Student, Rehabilitation Science
(McGill University)



POST-DOCTORAL FELLOWS

Dr. Yusuf Yilmaz, PhD
Post-Doctoral Fellow, MERIT & Continuing
Professional Development Office (CPD)



Dr. Yusuf Yilmaz is a postdoctoral fellow at MERIT and CPD Office, and a researcher-lecturer in the Department of Medical Education at Ege University, Izmir, Turkey. He earned his BSc and MSc in computer education and instructional technology from Dokuz Eylul University, and PhD in computer education and instructional technology from Middle East Technical University. During his masters, he visited the University of Edinburgh for three months with funding from the Council of Higher Education of Turkey in order to examine the state of mobile learning in the UK in regard to his thesis. He studied blended learning in faculty development during his PhD dissertation.

Dr. Yilmaz is an interdisciplinary researcher who uses quantitative and qualitative approaches to examine instructional technology in medical education for faculty and students. His research focuses on faculty development, instructional design, and program development and evaluation with a focus on educational technology and artificial intelligence. Previously, he has collaborated with researchers in several other disciplines of education, and medicine, particularly instructional design and methods at online learning environments. He has worked in several institutional and national projects about instructional technology.



Dr. Shera Hosseini, PhD
Post-Doctoral Fellow, MERIT &
McMaster Institute for Research on Aging
(MIRA)

Dr. Shera Hosseini received her Ph.D. from the University of Waterloo in Public Health and her Masters in Clinical Neuroscience from McMaster University. Her Ph.D. research centered around the psychosocial determinants of health and aging, in particular, the link between social factors and cognitive function. Her post-doctoral work at the Department of Family Medicine is a collaboration between MIRA (McMaster Institute for Research on Aging) and MERIT which conducts evaluative research on the effectiveness of health educational programs set to educate health professionals and the academic community on knowledge of research around aging and care provision for older adults. She has published in a number of peer-reviewed journals and has presented at several scientific venues.

MERIT STAFF



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Mark Lee
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Philip J. Devereaux, Medicine

Giulia Gambacorta, Public Prosecution Service of Canada

Lawrence Grierson, Family Medicine

Joe Kim, Psychology, Neuroscience & Behaviour

John Lavis, Health Research Methods, Evidence and Impact

Alan Neville, Education Services

Jonathan Sherbino, MERIT

Diana Weir, Toronto Symphony Orchestra

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:

- MERIT affiliation
- Profile in MERIT communications
- Opportunity for project consultation with one of our scholars or scientists

Responsibilities:

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



SCHOLAR

Benefits:

- Eligibility to compete for conference funding, limited research assistance support
- Access to Internal peer review of applications and publications and academic mentorship
- Access to tele- or video-conferencing for project communication
- Profile in MERIT communications
- Opportunity for project consultation with one of our scholars or scientists

Responsibilities:

- Peer consultations with Scientists
- Scholarly paper review
- Membership on HSEd thesis committee(s)
- Regular attendance at our monthly MERIT meetings
- Regular attendance at our monthly MERIT Rounds
- Presentation at MERIT rounds

AWARDS AND HONOURS



Dr. Teresa Chan
Canadian Association of
Emergency Physicians Ian
Stiell Researcher of the Year
Award

Medical Education Critic's
Choice Award



Dr. Meredith Vanstone
Canadian Association
for Medical Education
Certificate of Merit
and Meredith Marks New
Educator Award



Dr. Sandra Monteiro
Promotion to Associate
Professor

Health Sciences Graduate
Studies Excellence
in Graduate Student
Supervision Award



Dr. Lara Varpio
Early Career Medical
Educator of CanadaMentor
Award

Best Research Paper,
Assessment at Association
for Medical Education of
Europe Conference



Dr. Matthew Sibbald
McMaster University
President's Award
(nominee)

ACTIVE GRANTS

**TOTAL
FUNDING:
\$2.3M**

Academic Family Medicine Associates Research Grant Competition

Undergraduate medical education policies that influence the choice of Family Physician practice location: A mixed methods study of geographic disposition during training and in practice

CAEP Emergency Medicine Advancement Fund

Harnessing machine learning in the age of competency-based medical education

CAEP Young Investigator Fund

A qualitative study aimed at identifying barriers and facilitators to EPA acquisition in emergency medicine

CDRP, Chang Gung, Taiwan

Exploring Drivers and Inhibitors for Developing and Sustaining Successful Health Professions Education Scholarship and Research Communities and Units in Taiwan

Central Group on Educational Affairs

Patient Ownership in a Continuity Clinic Setting: Resident, Attending, and Patient Perspectives

College of Medicine Research Award (CoMRAD)

Enhancing competency-based medical education assessment with machine learning, natural language processing, and other advanced analytic techniques

Council of Residency Directors, Society of Academic Medicine Grant

Hearing is believing: A qualitative exploration of trust and credibility judgements in educational podcasts

Council of Residency Directors, Society of Academic Medicine Grant

The Impact of Driving on Podcast Knowledge Acquisition and Retention Among Emergency Medicine Residents

Education Scholarship Fund, Faculty of Health Sciences, McMaster University

Retrospective observational analyses of the associations between the geographical disposition of McMaster-graduated physicians before medical school, in training, and eventual practice

Family Medicine Associates

Overflowing Inbox: Resident and educator perceptions on the educational importance of indirect patient care activities

Fonds de recherche du Québec - Société et culture (FRQSC)

Assessment within competency-based education programs: monitoring quality and considering consequences

Fulbright Scholarship

Continuing professional development: Are medical professionals getting what they need?

MacPherson Institute Small Teaching & Learning Exploration Grant

Do deep learning approaches predict transfer of knowledge? Operationally defining transfer outcomes in practice via student perceptions

Mayo School of Medicine Innovation Grant

How Does Management Reasoning Manifest in Clinical Encounters? A Qualitative Study

McMaster University Department Innovation Award Competition for Research

Communication in Psychiatry: A Competence Lens

McMaster Surgical Associates Education Grant Awarded but unfunded due to COVID-19

Use of machine learning for textual analysis of narrative comments in medical education

McMaster Surgical Associates Education Grant Awarded but unfunded due to COVID-19

Measuring the effect of naturally-occurring mind wandering on observational learning in surgical residents

ACTIVE GRANTS

**McMaster Surgical Associates Education Grant
Awarded but unfunded due to COVID-19**

Implementation and Evaluation of a Surgical Coaching Checklist

**McMaster Surgical Associates Education Grant
Awarded but unfunded due to COVID-19**

Self-Directed Learning for Musculoskeletal Medicine in Undergraduate Medical Education

Medical Education Research Grant

Consultation or Crowd Sourcing?: Exploring the diagnostic accuracy of individual and group diagnosis

**Program Objective Memorandum (POM Funding), US
Department of Defense**

Implicit and risky - exploring translational activities in developing assessment program for competency based medical education

Physicians' Services Incorporated

Diagnostic Error and Decision Support Systems

Physicians' Services Incorporated

Enhancing metacognition in simulation: Evaluating the impact of eye-tracking augmented debriefing

**Physician Services Incorporated; Research Trainee
Fellowship**

Improving physician preparation to respond to patients who have experienced sexual violence

Public Health Agency of Canada

Preparing Providers to Recognize and Respond to Family Violence

**Research Seed Grant, Institute of Health Sciences
Education, Innovation, and Research**

When it all doesn't go according to plan: A hermeneutic phenomenology study of unmatched CaRMS applicants

**Royal College of Physicians and Surgeons of Canada -
Associated Medical Services CanMEDS Research Grant**

Canvassing for CanMEDS: How are the Intrinsic CanMEDS Roles integrated into EPAs

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

Evaluating rapid exemplar processing to improve diagnostic expertise

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

The (Unintended) Consequences of Implementing Competency Based Medical Education: Outcomes to inform our strategies

**Royal College of Physicians and Surgeons of Canada -
Education Research**

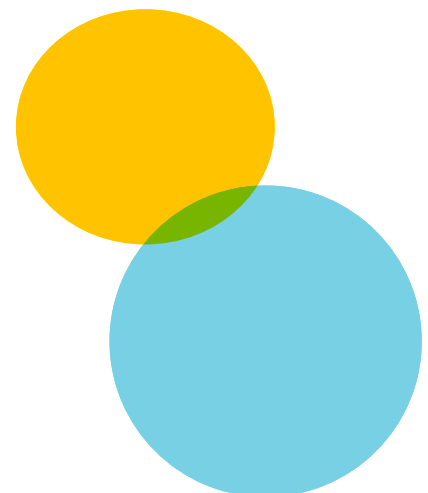
Implicit and risky - exploring translational activities in developing assessment program for competency based medical education

**Social Sciences and Humanities Research Council
(SSHRC) Connection Grant**

Research data management capacity building initiative: health professions education

Society of Directors of Research in Medical Education

Interview Elicitation Techniques in Health Professions Education: An Integrative Review



ORAL AND POSTER PRESENTATIONS AT CONFERENCES & INVITED PRESENTATIONS AT MEETINGS

American Public Health Association Annual Meeting. **Denver, Colorado** *

Association for Medical Education of Europe (AMEE) 2020. **Glasgow, Scotland** * ^

Association of American Medical Colleges (AAMC) Medical Education Meeting. **Washington, DC** ^

Canadian Association of Emergency Physicians Conference 2020. **Ottawa, Ontario** ^

Canadian Conference on Medical Education 2020. **Vancouver, British Columbia** * ^

Canadian Critical Care Forum 2020. **Toronto Ontario** *

Canadian Psychiatry Association National Conference 2020 *

Canadian Sociological Association Conference. **London, Ontario** ^

Centre for Health Education Scholarship (CHES) Rounds. **Vancouver, British Columbia** *

Competency-Based Medical Education Program Evaluation Summit. **Vancouver, British Columbia** *

Conference of the Society for Teaching and Learning in Higher Education 2020. **Ottawa, Ontario** *

Council of Residency Directors Academic Assembly 2020. **New York City, New York**

Extension for Community Healthcare Outcomes (ECHO) Ontario Conference. **Toronto, Ontario**

Internal Medicine Research Day, McMaster University. **Hamilton, Ontario** *

International Conference on Residency Education 2020. **Vancouver, British Columbia** * ^

McMaster Collaboratorium: Multidimensional Aspects of Healthcare Management in Times of Crisis. **Hamilton, Ontario** *

McMaster Department of Medicine Social Media for Leaders workshop. **Hamilton, Ontario** *

McMaster Department of Pediatrics Mentorship FacDev Session for Anchor Mentors. **Hamilton, Ontario** *

McMaster Faculty Development Day, Virtual Simulation Workshop. **Hamilton, Ontario** *

McMaster Niagara Regional Campus Annual Faculty Retreat. **Niagara-On-The-Lake, Ontario**

McMaster Program for Faculty Development Digital Rounds. **Hamilton, Ontario** *

Ontario Psychology Undergraduate Thesis Conference *

Ontario Student Medical Education Research Conference (OSMERC). **Toronto, Ontario** ^

Richard K. Reznick Virtual Research Week, The Wilson Centre. **Toronto, Ontario** *

Society for Academic Emergency Medicine National Meeting. **Denver, Colorado** * ^

Society for Education in Anesthesia Conference. **Washington, DC** *

UC Fresno Grand Rounds. **Fresno, California** *

University of Virginia Medical School. Educational Faculty Development workshop.
Charlottesville, Virginia

Virginia Regional Health Sciences Education Symposium 2020. **Richmond, Virginia**

World Congress of Bioethics. **Philadelphia, Pennsylvania** *

* indicates virtual event

^ indicates declined acceptance/cancelled event due to COVID-19



MERIT ROUNDS

The 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.

2020 Rounds Event Listing

Dr. Bruce Wainman, McMaster University

Virtual Unreality: 10 years of X-Reality Research in Education

Dr. Aliko Thomas, McGill University

Leveraging knowledge translation and implementation sciences in the pursuit of evidence informed health professions education

Dr. Teresa Chan, Dr. Sandra Monteiro & Dr. Yusuf Yilmaz, McMaster University

Data, Data, Data: 3 perspectives on how EPA assessment data can influence health professions education curriculum
(in collaboration with Insight U & Program for Faculty Development)

Dr. Paula Rowland, University of Toronto

When I say... professional learning

Dr. Nicole Woods, University of Toronto at University Health Network

Back to Basics: Cognition, Context and Curriculum
(in conjunction with Norman Education Research Day)

Dr. Michelle Lin, University of California, San Francisco

Academic Life in Emergency Medicine: How we evolved our virtual team to be a learning organization for digital scholarship and innovation

Dr. Shez Partovi, Amazon Web Services

What is Artificial About Intelligence: Use of Machine Learning in Medical Research and Education

Dr. Will Bynum, Duke University

Addressing the 'elephant in the room': Shame and sentinel emotional events in medical learners
(in conjunction with John C. Sibley Awards Ceremony & Lecture)



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 is 45 minutes long. A 15 minute presentation by the principle investigator, is followed by a 30 minute facilitated discussion between the MERIT team and the PI.

2020 *thinkTank* Event Listing

Sureka Pavalagantharajah, Sonya Martin, Jessica Chee, Gajanee Sivapatham & Dr. Jason Profetto

Exploring the learning environment in undergraduate medical school curricula:
A phenomenological approach

Dr. Claire Lee, Dr. Leslie Martin & Dr. Daniel Brandt Vegas

Strengths and Challenges of Learning to Discuss Goals of Care in Competency-Based Medical Education

Dr. Arden Azim & Dr. Matthew Sibbald

Building a Theoretical Framework for Virtual Interprofessional Education



LUNCH & A LAB MEETING

Introduced in September 2020, MERIT is offering an opportunity to network, discover and discuss topics in health professions education. The featured guest will give an in-depth look into a topic in HPE and a presentation of their current work. This will also give individuals the chance to get their questions addressed related to their work and expertise.

2020 Lunch & a Lab Meeting Event Listing

Dr. Matthew Sibbald

Translating Outcome Frameworks to Assessment Programs: Implications for Validity

Dr. Lara Varpio

I should give up on IPE research, right?

**Number of
Attendees:
161**



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, **Dr. 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/>

NERD 2020 Virtual Keynote Speaker

Dr. Nicole Woods

Nicole N. Woods, PhD is an Education Scientist & Associate Director of The Wilson Centre, The University of Toronto at University Health Network. She is also an Associate Professor in the Department of Family and Community Medicine. The goal of her work is to transform the training of health professionals by developing models of knowledge acquisition and expertise development and translating these models into tools and techniques for education. For 15 years, Dr. Woods has led studies of memory and decision-making that explore the impact of biomedical knowledge on clinical reasoning. Her research has significant implications for education across the developmental continuum and for a variety of health disciplines.

Back to Basics: Cognition, Context and Curriculum

Full presentation can be found here: <https://bit.ly/37xe01M>

HEALTH PROFESSIONS EDUCATION RESEARCH (HPER) COURSE

This open-access course 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.



Unit 1: The Nature of Knowing

Unit 1 is about becoming familiar with a wide variety of current health professions education (HPE) research, scholarship, techniques, and considers several approaches to advancements in the field. It covers a wide range of topics in HPE research, from epistemological philosophy to various applications of research methodologies.

Unit 2: Approaching the Project

Unit 2 requires the consideration of aspects of completing research or development activities, including literature searching and reviews, articulating one's research objectives, methods and analyses, and then defending those methods. Unit 2 will provide a strong foundation for the generation of successful, high-quality research proposals that will foster novel insight in health professions education.

Unit 3: Sharing Your Project

Unit 3 challenges one's academic and literary skills and provides the foundation to create a strong and compelling research proposal. The topics included in Unit 3 cover the articulation of an introduction, methods and discussion sections, and also examine the impact of rhetoric in the potential impact of research.

Unit 4: The Logistics of Your Project

Unit 4 is about becoming familiar with the "behind-the-scenes" work that is integral to every successful research project, including creating a research team, budgeting, timelines, and knowledge translation. By delving into these essential aspects of research, Unit 4 constructs the groundwork for the successful operation of a research project.

HPER Team (alphabetical order):

Samantha Applewhite, Dr. Teresa Chan, Dr. Lawrence Grierson, Muhammadhasan Nasser, Aljeena Qureshi, Dr. Jonathan Sherbino



PANDEMIC EDUCATION ADAPTATIONS RESEARCH (PEAR)

The COVID-19 crisis has significantly impacted the education of health professional students across all disciplines. It is important for each program to understand the impact of the adaptations they have made.

In collaboration with various health professional programs across the Faculty of Health Sciences (FHS), MERIT has developed an education quality improvement project to evaluate the impacts of health professions education adaptations that have been implemented throughout the Faculty in response to the COVID-19 pandemic. Stages 1 and 2 of the project are complete. Expected completion date of Stages 3 and 4 is early 2021.

Principles

- To operationalize a modular research project that can be adapted by all health professional programs within FHS who wish to participate.
 - This will provide support to each program to examine the impacts on their students from a QI perspective.
 - This will facilitate cross-program comparisons.
- To conduct all research remotely, via videoconference interviews or easily acquired education data
- To minimize the commitment from practicing health professionals whose time is required elsewhere

Research Objectives

1. To describe the adaptation to typical education practices in each program, including the activities halted, adapted, postponed, and the accommodations put in place.
2. To measure the impacts of adaptations on key learning activities and outcomes.
3. To understand the perceptions of health professional trainees and educators experiencing these adaptations.

More information: <https://bit.ly/3n82RpR>

PEAR Team (alphabetical order):

Dr. Lawrence Grierson, Mark Lee, Dr. Meredith Vanstone

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/>

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

Dr. Teresa Chan
 Dr. Geoff Norman
 Dr. Jonathan Sherbino
 Dr. Matthew Sibbald
 Dr. Meredith Vanstone

Course Coordinator
 Mark Lee



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.

2020 Sibley Award Recipients:

Dr. Michael Lee-Poy

Family Physician; Associate Clinical Professor, Department of Family Medicine

Dr. Michael Lee-Poy received his MD at the University of Western Ontario in 2005. He teaches in the Centre for Family Medicine in Kitchener-Waterloo. In addition, he is the Chair of Program Quality for the Undergraduate program at the Michael G. DeGroote School of Medicine. In another leadership role, he is the Faculty Development Coordinator for the KW and Area Family Medicine Residency Program. Until 2019, Dr. Lee-Poy held the position of Pre-Clerkship Coordinator at the Waterloo Regional Campus.

For many years, Dr. Lee-Poy has championed the integration of diversity and inclusion in medical education through an inter-professional approach to clinical practice and curriculum development. His contributions have resulted in meaningful professional development of medical learners.



Dr. Achilleas Thoma

Clinical Professor, Department of Surgery

Dr. Achilleas Thoma received his MD from McMaster University in 1976 and his Master of Science in Health Research Methodology from McMaster University in 2002. Dr. Thoma was integral to the development of the Surgical Outcomes Research Centre (SOURCE) at McMaster University. This multi-disciplinary educational endeavour teaches healthcare workers, caring for surgical patients, how to find, assess, and apply evidence from the surgical literature to their patients.



Dr. Thoma has made invaluable innovative contributions to surgical education through the design, implementation, and regular evaluation of the microsurgery training laboratory at McMaster University. As a successful researcher, he has mentored countless medical students, surgical residents, research assistants and nurses.



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.

Sibley Lecture 2020 Virtual Speaker

Dr. Will Bynum

Dr. Will Bynum is Associate Professor and Program Director, Family Medicine Residency Program at Duke University. Dr. Bynum's primary academic interest centers on the role of self-conscious emotions (shame, guilt, and pride) in the medical learning experience, and he is executing this body of research through PhD training in health professions education. Having published about shame in residents and medical students, he and his team are currently researching how pre-medical students experience the emotion.

Addressing the 'elephant in the room': Shame and sentinel emotional events in medical learners

Participants will be guided through an exploration of the experience of shame in medical learners. After a brief overview of the psychology of shame, they will learn about recent research showing how shame can be a sentinel emotional event in the life of a medical learner. Participants will learn about the events related to patient care, learning, and assessment that can trigger shame and the individual and environmental factors that can contribute to it. Finally, they will be equipped with specific strategies to identify and support a shamed learner and to build shame resilient learning environments.

Full presentation can be found here: <https://bit.ly/33EzEeJ>

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 will be senior faculty and leaders in their respective educational schools that have made substantial contributions to education in the Faculty of Health Sciences including teaching, mentorship, educational scholarship, or research, throughout their careers. Supported by MSc Health Science Education graduate program and MERIT.

2020 Health Professions Educator Award Recipient:

Dr. Sarah Wojkowski

Associate Professor, School of Rehabilitation Science

Sarah Wojkowski, PT, PhD is an Associate Professor in the School of Rehabilitation Science and currently the Acting Assistant Dean for the Master of Science (Physiotherapy) Program. Sarah is also the Director for the Program of Interprofessional Practice, Education and Research (PIPER) in the Faculty of Health Sciences (FHS) and chair of the Ontario Physiotherapy Association's Primary Care Advisory Committee (PCAC).



Her research interests include assessment of interprofessional competencies, unmet need for physiotherapy services, primary care and role emerging clinical placements. A member of the Governance committee for the Centre for Simulation Based Learning (CSBL), Sarah has a keen interest in the integration of simulation techniques into her teaching. A three time McMaster alumna, she enjoys collaborating with faculty from across Health Sciences to make a positive impact on students' educational experiences.

EDUCATION SCHOLARSHIP FUND

The Faculty of Health Science 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. Supported by Education Services.

2020 Education Innovation Fund Recipients:

Dr. Noori Akhtar-Danesh

Associate Professor, School of Nursing



Project Proposal: Q-Methodology: A Revolutionary Approach to Course Evaluation

McMaster University course evaluations typically require students to rate the “effectiveness of the instructor” on a seven-point Likert scale and ask for open-ended comments. While this evaluation is often quick and easy for students to complete, the average score is difficult to interpret, and comments provided are generally inconsistent or may represent the opinions of only a few students. As a result, the information available to instructors is limited, particularly when they aim to use such information for evidence-based course improvement.

To date, our work has focused on evaluating a relatively homogeneous cohort of individuals (e.g., students from a single program), participating in a single experience (e.g., one course) at a single time point (e.g., one cohort). Through this proposal we look to expand upon these previous successes and offer a three-tiered approach to expand each of these three aspects -- cohort, course, and chronology. Critically, we see this line of research as a continuation of our already strong research program offering a means toward systematic improvement of course evaluations.

Dr. Lawrence Grierson

Associate Professor, Department of Family Medicine



Project Proposal: Retrospective observational analyses of the associations between the geographical disposition of McMaster-graduated physicians before medical school, in training, and eventual practice.

Education policies around trainee selection and distributed training sites are purported to influence the distribution of graduating physicians into practice locations that best serve the diverse needs of the Canadian population. At the heart of these interventions is the central idea that people will choose to work and live in places with which they have had experience. While previous work in this area has focused primarily on geographic markers of rurality and population density, we recognize that each geographic location can be described according to different indices of population health need or ‘underservedness’. Moreover, because previous work has predominantly considered the issue of mal-distribution with respect to primary care specialties, we recognize an opportunity to develop more robust evidence as it pertains specifically to the geographical disposition of Family Physicians.

PAPERS & PUBLICATIONS

* Names of MERIT Scientists bolded

Acai, A., Mahetaji, K., Reid, S.E., & **Sonnadara, R.R.** (2020). The role of gender in the decision to pursue a surgical career: A qualitative, interview-based study. *Canadian Medical Education Journal*, 11(4), e51-e61. <https://doi.org/10.36834/cmej.69292>

Al Salmi I, Menezes T, El-Khodary M, **Monteiro S**, Haider EA, Alabousi A. Prospective Evaluation of the Value of Dynamic Contrast Enhanced (DCE) Imaging for Prostate Cancer Detection, With Pathology Correlation. *The Canadian journal of urology*. 2020 Jun;27(3):10220-7.

Azad, M., Swinton, M., Clarke, F., Takaoka, A., **Vanstone, M.**, Woods, A., Boyle, A., Hoad, N., Toledo, F., Piticar, J., Cook, D. Healing through art: Experiences of bereaved family members receiving commemorative paintings. *JAMA Open*. Accepted.

Bakker D, Russell C, Schmuck ML, Bell A, Mountjoy M, Whyte R, **Grierson L.** (2020). The relationship between regional medical campus enrollment and rates of matching to family medicine residency. *Canadian Medical Education Journal*, 11(3), e73.

Bell, A., Cavanagh, A., Connelly, C., Walsh, A., **Vanstone, M.** (2020). Why do few medical students report their experiences of mistreatment to administration? *Medical Education*. <https://doi.org/10.1111/medu.14395>

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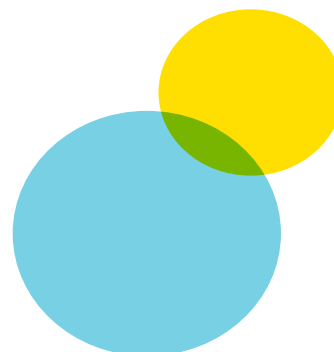
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