

Centre for Medical Education Annual Report

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A LOOK BACK AND A LOOK FORWARD

The Centre for Medical Education has remained highly productive. The 2016 annual report will provide evidence for this using the traditional metrics of grant capture and peer-reviewed publications. The Centre has also continued to command respect and garner honors in national and international settings.

The current structure and functioning of the Centre has been successful in bringing education scientists together with clinicians who have expertise and interest in health professions education. Although members of each community have unique needs and strengths, they have worked in harmony and unison in advancing the mission of the Centre. The Centre's 'community of practice' can be described as one where 'legitimacy' is assumed and rarely questioned, where the 'distance' from the periphery to the center is very narrow, and where 'participation' does not need to be negotiated. This characteristic of the community is one which should be preserved and promoted.

The increasing numbers of PhDs in the Centre has opened up new opportunities for enhanced graduate training and for the development of additional collaborations with the Faculty of Education. The design and deployment of a certificate-based, stackable, Masters in Health Professions Education will be a major goal for the next 2 to 3 years. The Centre needs to be positioned so that it can contribute to the formation of a new generation of researchers in health professions education, be they educational scientists, clinician teachers committed to creating best practices, or clinicians with a passion for scholarship in pedagogy.

J. Donald Boudreau



The Centre for Medical Education promotes innovation and excellence in health sciences education through research and scholarship, leadership and mentorship, and dissemination of best practices. The 19 Core Faculty (including 3 Research Scientists and 4 members of the Assessment and Evaluation Unit) and 40 Centre Members have had a very productive and successful year. The Research Scientists and members of the Assessment and Evaluation Unit are all PhDs. We will outline their accomplishments in this report.

RESEARCH

Grants and Research Awards Received

This past year, Core Faculty and Centre Members held 71 grants in medical education (as outlined in **Appendix I**) totaling \$25,017,248¹, of which 23 were new research grants, totaling \$3,517,642. Research themes continued to focus on professional identity formation, faculty development, teaching and learning (with a particular focus on clinical reasoning and decision-making), simulation-based education, assessment of learners and faculty members, program evaluation, and knowledge translation.

The Centre has also been able to support Core Faculty and Centre Members' educational innovations and research through several initiatives: The Class of '77 Medical Education Innovation Grants Program, the Centre for Medical Education Innovation and Research Seed Fund, the Emerging Scholar in Medical Education, and the Jonathan Campbell Meakins & Family Memorial Fellowship. The Class of '77 Medical Education Innovation Grant was awarded to Dr. Joanne Alfieri and her colleagues for their proposal for a *Quality Improvement Training Program in Radiation Oncology*; while the Medical Education Innovation and Research Seed Fund was awarded to two teams: (1) Dr. Carlos Gomez-Garibello, with his colleagues, for a research project entitled *E as in Entrustment and Emotions: Exploring the Association between Emotions and Entrustment in Clinical Settings*; (2) Dr. Aliko Thomas, with her colleagues, for a research project entitled *Clarifying and Contextualizing the Relationship Between Evidence-Based Practice and Clinical Reasoning in Rehabilitation Education*.

Additional grants to highlight this year included the following: (1) A grant from the Canadian Institute of Health Research (CIHR), awarded to Drs. Meredith Young, Farhan Bhanji, Aliko Thomas, Stuart Lubarsky, Valerie Dory, Naz Torabi and Steven During for their project titled: *Understanding Diagnostic Error: A Scoping Study Of The Role Of Ambiguity And Uncertainty In Reasoning And Error*. (2) A grant from the Medical Council of Canada, awarded to Dr. Meredith Young and colleagues, for their research titled *"Why Am I Doing What I'm Doing?": An Exploration Into How Raters Adapt To Formative And Summative Purposes Of Assessment*. (3) A grant from St Mary's Hospital Foundation, awarded to Dr. Peter Nugus and colleagues, including another Centre member, Dr. Yvonne Steinert, for a project on *Improving intubation through video reflexive ethnography: towards a culture of collaborative learning*. (4) A grant from the Social Science Humanities Research Council (SSHRC) Knowledge Synthesis Grant, awarded to Dr. Mary Ellen Macdonald and colleagues for a project on *Advancing Indigenous Pedagogy on Childhood: Identifying priorities for professional education*. (5) Dr. Robert Sternszus received an internal grant from an Osler Fellowship Fund to support research on faculty perceptions of their role in supporting the professional identity development of learners. (6) A grant from the Medical Council of Canada, awarded

¹ Of that amount, \$7,333,946 in funding was obtained by Dr. Susanne Lajoie through various grants; \$3,000,000 was obtained by Dr. Farhan Bhanji, and \$2,571,135 was obtained by Dr. Annette Majnemer).



to Dr. Valérie Dory and colleagues, to explore the longitudinal work-based assessment component (PMEX) of the Integrated Assessment course in Core Clerkship. (7) A grant from the Canadian Institutes of Health Research (CIHR), awarded to Dr. Annette Majnemer and colleagues, to enable patients, parents, clinicians, policymakers and researchers to work together in developing an impactful research program that will optimize the functional potential of children with disabilities and will enhance the health care system in ways that are more responsive, supportive and cost-effective. (8) Dr. Mylène Dandavino, awarded the Wendy Macdonald Educational Fund for her research project on the impacts of the relocation of the Montreal Children's Hospital.

To ensure that our research and scholarly activities are in line with the Faculty's Research and Ethics Office (IRB), the co-chairs of the McGill Research in Medical Education (McRIME) committee, Drs. Donald Boudreau, Deborah Danoff and Peter Nugus, reviewed 14 research projects prior to IRB submissions. Topics included: *What are the Practice Location Outcomes of Clinical Training Locations of Graduates from McGill*; *Validation of an Integrated Program of Assessment in Third Year Clerkship*; *Supporting the Process of Developing a Professional Identity in Students and Residents*; *Feasibility, Acceptability and Effectiveness Potential of a Novel Faculty Mentorship Program*; *Exploring Pediatric Faculty and Postgraduate Trainee's Perceptions on Workplace-Based Assessment as a First Step in Transitioning to CBE*.

To enhance our Core Faculty Members' knowledge and understanding of research principles and practices, our in-house research capacity building sessions included an *Advanced Seminar Series on Knowledge and Evidence in Health Professions Education: Conversations and Controversies*, led by Dr. Aliko Thomas.

Publications

This year, Core Faculty and Centre Members published a total of 93 articles and book chapters in a variety of medical education and specialty journals (as outlined in **Appendix II**). This represents an increase from last year. It includes publications on topics relating to professional identity formation, faculty development, competency-based medical education, the humanities in medical education, interprofessional education, simulation, virtual reality and other technologies to enhance teaching, learning, assessment, and clinical reasoning. Drs. Richard Cruess, Sylvia Cruess and Yvonne Steinert published the second edition of their book entitled *Teaching Medical Professionalism: Supporting the Development of a Professional Identity*. Chapter contributions were made by Centre Members: Dr. Robert Sternszus (Developing a professional identity: a learner's perspective); Dr. Thomas Hutchinson (Experiential learning and reflection to support professionalism and professional identity formation); Dr. Donald Boudreau (The evolution of an undergraduate medical program on professionalism and identity formation); and Dr. Linda Snell (Supporting professionalism and professional identity formation at the postgraduate level).

Presentations of Scholarly Work

Core Faculty and Centre Members also presented their work in a number of national and international venues. More specifically, they gave over 170 presentations at local, national and international conferences and events, of which 16 were keynote or invited plenary presentations in universities and/or medical schools in the Czech Republic, Iceland, Japan, Norway, Saudi Arabia, Singapore, Spain, the United Kingdom, the United States and Taiwan.



TEACHING AND LEARNING

Initiatives and Innovations

This past year, the Centre was involved in a number of educational initiatives that we are proud to highlight.

The success of the course *Medical Education and All That Jazz: A Focus on Faculty Development in the Health Professions* was a particular educational highlight for Dr. Miriam Boillat, Dr. Linda Snell and Dr. Yvonne Steinert. The course brought faculty developers from around the world for a 4-day intensive course on faculty development and provided the opportunity to interact with like-minded colleagues who share similar faculty development challenges and opportunities. It was a wonderful collaboration and helped to expand thinking and understanding of faculty development. Dr. Boillat also launched a new program entitled the *Occasional Faculty Developer Program* in January 2016. To date, several departments/schools such as General Surgery, Pediatrics, and Pharmacology have identified an 'occasional faculty developer', and have planned or conducted a faculty development activity for teaching improvement.

Dr. Tim Dubé (Curriculum Design and Alignment - PGME) was recruited as a Core Faculty Member, and led the planning, development, and delivery of a half-day faculty development retreat for Program Directors about curriculum mapping. Dr. Dubé delivered the keynote presentation titled: *How to map your curriculum? The road to competency-based medical education*. Over 40 participants (Program Directors and faculty leads) attended and nine facilitators were recruited for two small group discussions (e.g. developing a health advocacy curriculum and SWOT analysis regarding curriculum mapping).

Dr. Mary Ellen Macdonald continues to serve as the Director of a 4-year longitudinal *Oral Health Research Curriculum* in the Faculty of Dentistry. Designed by Dr. Macdonald, it is a 12-credit program with four courses, wherein she oversees the second year class. The current graduating cohort is the first to have completed the entire curriculum.

Together with other colleagues, Dr. Lily Nguyen developed and organized a simulation-based course for the community of 'Otolaryngology & Head and Neck Surgery' (OTL-HNS) faculty, highlighting crisis resource management skills needed to manage acute airway cases. The course was part of the Congrès annuel ORL du Québec, and provided the first opportunity for Quebec community OTL-HNS surgeons to participate in high-fidelity emergency scenarios (i.e. taking simulation outside the ivory tower).

Dr. Geoffroy Noel led the work between PGME and UGME to have anatomy review sessions for surgery and radiology residents during the summer and have the R1 residents return to the lab to help 1st year Med/Dent students dissect with a surgical and radiological approach.

Centre and Core Faculty Members were instrumental in the development of the course entitled *Teaching Residents to Teach Online Course*. This 2-part online course will provide residents the knowledge and skills necessary to become effective teachers, and also help fulfill the following CanMEDS roles: Scholar, Communicator and Professional. The course directors include: Dr. Evelyn Constantin, Dr. Sero Andonian, Dr. Tim Dubé and Dr. Carlos Gomez-Garibello. The Course Faculty Leads include: Dr. Linda Snell, Dr. Robert Sternszus, Dr. Sero Andonian and Dr. Farhan Bhanji.



Educational Programs

Under the leadership of Dr. Michelle Elizov, we welcomed four students and residents for electives in medical education. These learners spent one month learning about the principles of medical education and research in pedagogy by participating in weekly meetings and individual meetings with Core Faculty and Centre Members.

The Master of Arts (MA) program in Educational Psychology (Health Professions Stream), in which very few students are currently enrolled, is under review by members of the Faculty of Education and the Faculty of Medicine. The Faculty of Medicine, in partnership with the Faculty of Education, has a workgroup that has been given the mandate to design a Masters in Health Professions Education (HPE). The Masters in HPE will be organized as a certificate-based program. The foundational certificate, the 'Graduate Certificate in Foundations of HPE' (5 credits) has been developed and is expected to be ready for offer in May 2018. It will include 5 courses: Learning, Cognition and Motivation; Introduction to Curriculum and Program Development; Introduction to Assessment and Evaluation; Introduction to Scholarship in HPE, and; Introduction to Educational Leadership. Preliminary work has been done to create additional certificates. The program is designed so that the certificates will be 'stackable' -- a combination of three certificated could eventually lead to a master's degree. This modular structure is anticipated to appeal to clinicians who wish to continue with clinical work while being engaged in graduate studies.

In partnership with the Faculty Development Office, the Centre offered four Medical Education Rounds (MER) in the past year. Valérie Dory and Carlos Gomez Garibello, Core Centre Members and members of the Assessment and Evaluation Unit, delivered an MER on current issues in work-based assessment entitled: *Work-Based Assessment: Is Competence in the Eye of the Beholder?* Valérie discussed the implications of conceptualizing work-based assessment as educational reasoning and Carlos examined the potential influences on emotions in this process. Dr. Rita Charon, Professor of Medicine from Columbia University Medical Centre, presented on *Teaching Toward Attention: The Pedagogies of Narrative Medicine*. Dr. John Launer, an Associate Dean in Multiprofessional Faculty Development from Health Education England, spoke to members of the community on *Uncertainty in Healthcare Practice: How Not To Be An Expert*. Dr. Claire Touchie, Chief Medical Education Advisor at the Medical Council of Canada, along with Dr. Farhan Bhanji, Member of the Centre and Associate Director of Assessment at the Royal College of Physicians and Surgeons of Canada, spoke about *Competency-Based Education in the Health Professions: The Future is Now!*

INVOLVEMENT IN THE COMMUNITY

Dr. Laeora Berkson became the Chair of the Program Evaluation and Curriculum Outcomes subcommittee in UGME. In addition to responding to the needs of accreditation, including the recent visit by the representative of the AFMC, the subcommittee is establishing the processes that will support continuous program (curriculum) evaluation and quality improvement in the years to come.

Dr. Vanessa Anastasopoulos is an Evaluation Mentor through the Canadian Evaluation Society's Evaluation Mentoring Canada program.

The demand for faculty development in the Academic Health Network continues to grow for Dr. Miriam Boillat and the Faculty Development Team. These activities are initiated or requested by departments



and unit Chairs and Program Directors, who have a desire to improve their teaching and overall environment.

Dr. Mylène Dandavino was nominated Vice-Chair of Clinical Operations of the Department of Pediatrics, conducting a taskforce that aims to ensure safe staffing of their clinical units, in the context of resident shortages and tight governmental staffing rules.

Dr. Michelle Elizov was involved in the development of the Education team and mandate of the CIUSSS Centre Ouest, including coordination, orientation and onboarding of health professional students' stages, as well as supporting the clinical supervisors that teach them.

Dr. Joyce Pickering was involved with the Medical Council of Canada (MCC). The MCC continues to develop and promote rigorous assessment of medical skills.

MILESTONES

Several of our Core and Centre Members were successful in receiving academic promotions within their own disciplines: Dr. Farhan Bhanji was promoted to the academic rank of Professor; Dr. Evelyn Constantin was appointed Assistant Dean in Postgraduate Medical Education (PGME), Beth-Ann Cummings was appointed as the Associate Dean for the Undergraduate Medical Education (UGME), Leonora Lalla was appointed Associate Dean, Continuing Professional Development (CPD), Nicole Ventura was appointed Assistant Professor in the Division of Anatomical Sciences, and Annette Majnemer was appointed Vice-Dean of Education in the Faculty of Medicine, as well as the Director (nominated principal investigator) of a new pan-Canadian Patient-Oriented Research Network called CHILD-BRIGHT.

The Centre for Medical Education completed several recruitments for the Assessment and Evaluation Unit: Ms. Meredith Derian-Toth (Academic Associate), Dr. Maryam Wagner (Academic Lead – Schools), and Dr. Vanessa Anastasopoulos (Director). Drs. Wagner and Anastasopoulos were appointed as Core Faculty Members to help build capacity in assessment and program evaluation. We also welcomed Core Faculty Member Dr. Tim Dubé, who was recruited as an Assistant Professor in Curriculum, Design and Alignment in PGME, and nine new Centre Members (Drs. Evelyn Constantin, Tom Hutchinson, Susan Law, Annette Majnemer, Susanne Mak, Mélanie Mondou, Norma Ponzoni, Elisa Ruano-Cea, and Nicole Ventura). We also thank our colleagues who moved on to other opportunities (Ms. Adrianna Venturini, and Dr. Kevin Waschke).

HONOURS, AWARDS AND PRIZES

We are pleased to congratulate the following Core Faculty and Centre Members for their achievements in the past year: Drs. Richard and Sylvia Cruess were joint recipients of the McGill University Lifetime Achievement Award for Leadership in Learning; Dr. Linda Snell received the Ian Hart Award for Distinguished Contribution to Medical Education by the Canadian Association of Medical Education; Dr. Farhan Bhanji received the Paediatric Academic Leadership - Clinician Educator Award for excellence in leadership through the advancement of educational innovation and practice that advances the quality of teaching related to children and youth and more broadly; Dr. Jeffery Wiseman received the 2016 Canadian Society of Internal Medicine Osler Award, which is presented annually to an individual who



demonstrated excellence in achievement in the field of general internal medicine, either in clinical practice, research, medical education of specialty development; Dr. Wiseman was a co-recipient of the 2016 Transition to Clinical Practice (TCP) Internal Medicine Teaching Award, given to the physician who received the most nominations by the students completing TCP Internal Medicine; Dr. Lily Nguyen was a co-recipient of the Prix d'innovation pédagogique from the Conseil Québécois de développement professionnel continu des médecins (CQDPCM), given in recognition of innovative initiative related to continuing health professional education; and Dr. Liliane Asseraf-Pasin received the Prix Excellence from the Ordre professionnel de la physiothérapie du Québec (OPPQ), to highlight the motivation and participation of committed members and professionals that contributed in a special way to the advancement and recognition of the profession. Lastly, Dr. Beth Cummings was honoured by the Faculty of Medicine's Faculty Honor list for Educational Excellence, in recognition of her outstanding contributions to education in the areas of teaching, educational leadership and innovation, faculty development, research and scholarly activity.

ACKNOWLEDGEMENTS

In closing, we would like to acknowledge the following Core Faculty and Centre Members for their administrative contributions to the Centre: Drs. Miriam Boillat and Linda Snell, who co-chair the Medical Education Awards Committee; Dr. Michelle Elizov for her contribution to the Medical Education Electives Program; and Drs. Deborah Danoff and Peter Nugus for their guidance and leadership as co-chairs of the Centre's Committee on Research in Medical Education (McRIME). I would like to acknowledge Ms. Audrey Lew for her management of the Centre, and Ms. Claudia Regier, Ms. Melissa Como and Ms. Meron Teferra for their administrative coordination of all Centre tasks and activities. Lastly, we gratefully acknowledge Dean David Eidelman, Vice-Dean Annette Majnemer, and Ms. Pascale Mongrain for their ongoing support and help in achieving our collective goals and objectives.



Appendices

Appendix I – Grants in Medical Education

Appendix II – Publications in Medical Education

Appendix III – Visitors to the Centre

Appendix IV – Honours, Awards and Prizes

Appendix V – Faculty, Centre for Medical Education

**APPENDIX I – GRANTS IN MEDICAL EDUCATION**

1. Arnaert A, **Ponzone N**, Soubeiga D, Sia D, Tchouaket E, Kargougou R, Prosper DA, Guiella G, Yentema O, Schauer A. STREAMS: Strengthening the relationship between primary care nurses and community health workers using technology-enabled home visits for preventative screening and monitoring of pregnant women living in the rural eastern region of Burkina Faso. (Grand Challenges Canada Stars in Reproductive, Maternal, Newborn and Child Health, 2016 – 2017, \$100,000)
2. **Asseraf-Pasin L**. Improving access to practice for English-speaking internationally trained physical therapists. (Institute for Health and Social Policy McGill Retention Program, 2015-2019, \$147,500)
3. Azevedo R, **Lajoie S**, Hall N, Asghar A, Venkatesh V, Charles E, Labonté F, Chapdelaine C, Marqui R, Winne P, Laferrière T. Transforming teacher training and improving students' academic achievement with advanced digital technologies. (Partnership Development Grant—Social Sciences and Humanities Research Council of Canada, 2013-2018, \$192,660)
4. **Bank I**. Use of mobile simulation equipment for Crisis Resource Management Team training in the Pediatric setting. (MUHC Equipment Grant Competition, 2016, \$10,165)
5. **Boillat M, Elizov M**. Starting the teaching journey: An innovative longitudinal faculty development program for new teachers. (Class of '77 MedEd Innovation Grants Program, 2015-2016, \$4,000)
6. Borges Da Silva R, Gruneir A, Lapointe L, Lee L, McAiney C, Moore A, [...] **Rodriguez C**, et al. Assessing care models implemented in primary health care for persons with Alzheimer's disease and related disorders. (Canadian Consortium of Neurodegeneration and Aging, 2014-2019, \$1,200,000)
7. Bould MD, Boet S, Cheng A, **Bhanji F**, Langevin M, Gilfoyle E, Duff J, Lobos AT, Kotsakis A. Consolidating tools for outcomes in resuscitation (CONTOUR). (Patient Safety Institute, 2015-2018, \$248,500)
8. Collin-Vezina D, **Macdonald ME**, Morris M, Talwar V, Praagh SV. Advancing Indigenous Pedagogy on Childhood: Identifying priorities for professional education. (SSHRC Knowledge Synthesis Grant, 2016-2017, \$24,821)
9. **Constantin E, Ruano E**. Residents as Teachers for Community Health Care Providers: Exploring a New Model for Continuing Medical Education. (MSSA Innovation Fund, 2016-2017, \$20,000)
10. **Dandavino M**, Korah N, **Gomez-Garibello C**, Kaspary K, Li P. Did the move of the Montreal Children's Hospital impact quality of education and patient care service? (The Wendy MacDonald Funds Research Competition, 2016-2017, \$3,049)
11. **Danoff D, Boudreau D, Thomas A, Steinert Y**. Professional identity formation in medicine: How does humanistic healthcare education with a focus on patient centeredness help to shape that identity? Mapping the landscape, journeying together. (Arnold P. Gold Foundation, 2015-2017, \$6,000 US)
12. **Dory V, Gomez-Gabribello C, Young ME, Cummings B, Cruess S, Cruess R**. Advancing longitudinal work-based assessment systems: assessing progress in clerkship. (Medical Council of Canada, 2016-2017, \$18,640)
13. Feeley N, Cossette S, **Ezer H**. Réseau de recherche interuniversitaire en sciences infirmières de Montréal (RIISIQ). (FRQS Infrastructure Grant, 2014-2019, \$2,000,000)



14. **Gomez-Garibello C, Dory V, Snell L, Wiseman J, Duffy M, Aalamian A, Steinert Y.** E as in Entrustment and Emotions: Exploring the Association between Emotions and Entrustment in Clinical Settings. (Centre for Medical Education Innovation and Research Seed Fund, 2016, \$ 6,200)
15. **Gomez-Garibello C, Dory V, Young ME, Sternszus R, Aalamian A, Cruess R, Cruess S, Ruano-Cea E, Andonian S.** Developing a rubric to assess residents' work-placed based teaching as an Entrustable Professional Activity (EPA). (Royal College of Physicians and Surgeons of Canada: Research for assessment within competency-based education, 2016 – 2018, \$17,500)
16. Haggerty J, Durand P-J, Groulx A, Couturier Y, Légaré J, Barbir C, Roy DA, **Rodriguez C.** Knowledge network in integrated primary health Care .(CIHR - SPOR Pan-Canadian Network in Primary and Integrated Health Care Innovations: Management & Operations Grants competition, 2015-2020, \$1,000,000)
17. Hall N, **Lajoie S,** Goetz T, Wrosch C, Frenzel A, Pekrun R, Fryer J, Dunton G, Linnenbrink-Garcia L. The first-year experience: An international motivational perspective. (SSHRC Partnership Development Grant, 2013-2016, \$830,308)
18. Harley J, Grace A, Poitras E, **Lajoie S.** Fostering historical reasoning, hope, empathy, emotional engagement and queer history awareness with a mobile augmented reality app (SSHRC development grant, 2016-2018, \$75,000)
19. Hudon C, Chouinard MC, Brousselle A, Dubois MF, Fortin M, Loignon C, Pluye P, Roberge P, **Rodriguez C.** V1sages 2 - Partenaires pour une organisation optimale du continuum de soins des grands utilisateurs de services de santé et de services sociaux. (CIHR Partnerships for Health Systems Improvement, 2014-2017, \$400,000)
20. Hunt M, Bolduc M E, Countinho F, Descoteaux N, **Majnemer A, Thomas A, Venturini A.** Supporting the training of rehabilitation providers in Haiti. (McBurney Professional Training Program, Institute for Health and Social Policy, 2012-2016, \$72,922)
21. Ingram E, **Rodriguez C,** Yaffe M, Willoughby K. Preparing to provide care for the elderly during family medicine residency. (2015 Janus Research Grants, 2015-2016, \$5,000)
22. Karsoho H, **Macdonald ME.** In search of a nursing standpoint: Investigating nurses' values regarding assisted death. (CIHR Catalyst Grant, 2016-2018, \$100,000).
23. Kustra E, **Winer L.** Conference on Effective Teaching Evaluation and Enhanced Teaching Cultures. (SSHRC – Connection Grant, 2016-2018, \$25,000)
24. Kuuskne M, Sheridan M, **Bank I,** Stern E. The use of in-situ simulation of a pediatric resuscitation scenario in a dedicated adult emergency department for quality assurance and improvement. (McGill Emergency Medicine Residency Research Grant Competition, 2015-2016, \$1522)
25. **Lajoie S,** Azevedo R, **Lachapelle K,** Muis K, **Wiseman,J,** Hmelo-Silver C, Leighton J, Shute V, Pekrun R, Frasson C, Calvos R, Lester J, Jang E, Stupinsky R, Molenaar P, Kee K, Goldman R. Learning environments across disciplines: Supporting technology rich learning across disciplines. (Social Sciences and Humanities Research Council of Canada Partnership Grant, 2012-2019, \$2,500,000)
26. **Lajoie S,** Cruz-Panesso I. Understanding of key cognitive components of aviation training in the context of an e-learning environment. (CAE Inc., 2014-2016, \$100,000)



27. **Lajoie S**, Poitras E, Naismith L. Using learning analytics to assess clinical reasoning in an online learning environment. (MedU, 2014-2016, \$25,000)
28. **Lajoie S**. Advanced technologies for learning in authentic settings facility. (Canadian Fund for Innovation-Leadership Opportunities Fund, 2012-2017, \$1,000,000)
29. **Lajoie S**. Advanced technologies for learning in authentic settings: Supporting teaching and learning in technology rich problem solving environments. (Canadian Research Chair Program-McGill Travel Grant for International travel to Munich, 2011-2018, \$1,400,000)
30. **Lalla L, Charo R, Boillat M**, Dove M, **Nugus P, Steinert y**, Willoughby K. Assessing an Undergraduate Medical Education Innovation: The First Year of the McGill Longitudinal Family Medicine Experience. (The College of Family Physicians of Canada, 2014- 2016, \$10,000).
31. Lavoué E, **Lajoie S**, Molinari G, Tabard A. Supporting learners' regulation based on visualization of emotional information. (Coopera, 2015-2016, \$66,978)
32. Law S, Purden M, **Asseraf-Pasin L**, Daly M, **McDonald ME, Mondou M, Nugus P**, Ormel I, Perlman C, Tardiff K, Wright D. Promoting patient-centered cancer care through experience-based Interprofessional Education (IPE) strategies. (Canadian Cancer Society; Knowledge to Action, 2016-2018, \$100,000)
33. **Majnemer A**, O'Donnell M, Ballantyne M, Cohen E, Collet JP, Dewan T, Elsabbagh M, Grant P, Hanlon-Dearman A, Kitch T, McElroy T, McGrath P, Miller A, Patel H, Rempel G, Shevell M, Wittmeier K. BRIGHT coaching: A health coach system to empower families of preschoolers with developmental disabilities. (CIHR CHILD-BRIGHT project, 2016-2021, \$2,571,135)
34. Mercier J, Charland P, Saint-Amour D, Abrami P, Azevedo R, Bertone A, Gauvin I, Grabner R, Herba C, **Lajoie S** et al. NeuroLab. (Canada Foundation for Innovation, Leader Opportunity Fund, 2013-2018, \$1,000,000)
35. Morrison L, Christenson J, Stiell I, deCaen A, Kirkpatrick A, Travers A, **Bhanji F**, Atkinson P, Ramanathan K, Vaillancourt C, et al. CanROC – Canadian Resuscitation Outcomes Consortium: Toward a national resuscitation clinical research network. (CIHR Operating Grant, 2015-2020, \$3,000,000)
36. Muis K, **Lajoie S**. Environnements d'apprentissage technologiques: augmenter la motivation, l'auto-régulation et la réussite scolaire des étudiants à l'aide de l'apprentissage par l'enseignement. (FQRSC – MELS, 2013-2018, \$150,000)
37. Nakhla M, **Bell L**. Improving the transition from pediatric to adult care for emerging adults with diabetes. (Canadian Diabetes Association, 2014-2017, \$200,830)
38. **Nugus P**, Mah R. Coffin N, Cooke M, Carroll K, Ramos D, **Steinert Y**. Improving intubation through video reflexive ethnography: towards a culture of collaborative learning. (Grant Scheme, St Mary's Hospital Foundation, 2016-2018, \$19,800)
39. Patocka C, Sibbald M, **Bhanji F**. The impact of spaced instruction on Emergency Medical Services (EMS) provider long-term retention of pediatric resuscitation performance: a randomized controlled trial (RCT). (Canadian Association of Emergency Physicians, 2015 - 2016, \$3,635)
40. Patocka C, Sibbald M, **Bhanji F**. The impact of spaced instruction on Emergency Medical Services (EMS) provider long-term retention of pediatric resuscitation performance: A randomized controlled trial. (University of Calgary Office of Health and Medical Education Scholarship, 2015-2016, \$9,235)



41. **Razack S.** Discourse analysis of the admissions process to medicine. (Social Sciences and Humanities Research Council, 2015, \$129,000)
42. Rochette A, **Thomas A**, Brousseau M, Bourget A. Pratiques actuelles des ergothérapeutes détenant une maîtrise professionnelle. (Ordre des ergothérapeutes du Québec: soutien d'une initiative stratégique, 2015-2016, \$20,000)
43. **Rodriguez C**, Bartlett-Esquillant G, Grad R, Pluye P, **Boillat M**, Dove M, **Lalla L**, **Tellier P**. Groupe de recherche en éducation en médecine familiale à McGill – Recherche, développement et innovation en éducation pour la médecine familiale. (Fonds de recherche Société et culture du Québec, Soutien aux équipes de recherche, 2015-2016, \$356,000)
44. **Rodriguez C**, Denis JL, Touati N. Les processus de collaboration médicale entre niveaux de soins: les comprendre pour mieux les influencer. (CIHR, 2011-2016, \$275,976)
45. **Rodriguez C**, Hersson-Edery F, Reoch J. Innovating in primary healthcare delivery to people living with diabetes: The Quebec diabetes empowerment group program. (Reseau-1 Quebec Research Competition, 2015-2016, \$25,000)
46. **Rodriguez C**, **Tellier PP**, Lopez-Roig S, Pawlikowska T, Schweyer FX, Bélanger E, Fiquet L, Hugé S, Pastor-Mira A, Pereiro-Berenguer I, Spencer S. Family physicians' professional identity formation: Exploring impression management strategies in institutional academic contexts. (CIHR, 2013-2016, \$183,719)
47. **Rodriguez C**, Touati N, Pare G, Sicotte C, Lapointe L, Barkun J, Valiquette L, Huot J. Agency, information, technology and institutional change in knowledge-based complex professional organizations. (SSHRC Insight Grant, 2012-2016, \$305,000)
48. **Rodriguez C**. Critical management studies in health care organizations. (FRSQ Chercheur-Boursier Senior Salary Award Grant, 2012-2016, \$353,876)
49. Rousseau C, Breau S, Cleveland J, Cloos P, Cote D, Crepeau F, Fortin S, **Rodriguez C**, et al. Santé, intervention sociale et immigration: des transformations globales aux adaptations locales. (FRQS Soutien aux infrastructures de recherche des instituts et des centres affiliés universitaires du secteur social, 2014-2019, \$831,250)
50. Rousseau C, Hassan G, Lafortune D, Measham T, Nadeau L, Papazian Zohrabian G, Pluye P, Vachon M, **Rodriguez C**. Les soins partagés en santé mentale jeunesse. (FRSQ Recherches en santé et société, Subventions de recherche, Recherches en santé mentale, 2012-2016, \$757,500)
51. Snider LM, Ianni L, Mazer B, **Thomas A**. The role of school-based occupational therapy with children with attention disorders. (Strauss Knowledge Translation funds, 2015-2016, \$10,008)
52. **Sternszus R**, **Bhanji F**, **Andonian S**, **Snell L**. Resident-as-teacher: Building on success through innovation. (McGill Class of '77 MedEd Innovation Grants Program, 2014-2016, \$4,000)
53. **Sternszus R.**, **Steinert Y.**, **Macdonald ME**, **Boudreau D**, **Cruess R**, **Cruess S**. Supporting the developing of a professional identity in students and residents: Staff physicians' perceptions of their role. (Osler Fellow Fund, 2016, \$10,000)
54. St-Onge C, **Young ME**, Eva K, Featherstone R, Hodges B. From theory to practice: Quantification and consequences of different validity conceptualizations. (Social Sciences and Humanities Research Council of Canada (SSHRC), 2014 – 2017, \$151,992)



55. St-Onge C, **Young ME**, Varpio L, Renaud J-S, **Cummings BA**. Which, why and how are item analysis guidelines applied when monitoring the quality of examinations? Interviews with key informants. (Medical Council of Canada, 2015 –2016, \$35,781)
56. Tavares W, St-Onge C, Gauthier G, **Young ME**. “Why am I doing what I’m doing?”: an exploration into how raters adapt to formative and summative purposes of assessment. (Medical Council of Canada, 2016 - 2017, \$37,500)
57. **Thomas A**, Bossers A, Lee M, Lysaght R. Educational research in occupational therapy – Dissemination of results from a national survey of occupational therapy faculty in Canada. Phase 2. (Association of Canadian Occupational Therapy University Programs, 2015-2016, \$1,180)
58. **Thomas A**, Gruppen L, van der Vleuten C, **Steinert Y**. Use of evidence in health professions education: Attitudes, practices, barriers and facilitators. (Association for Medical Education in Europe Research Grant, 2015-2016, \$16,828)
59. **Thomas A**, Luconi F, Grad R, Chin D, Marini C, Rochette A. A multifaceted, innovative technology-based intervention to move stroke rehabilitation guidelines into professional practice: An exploratory case study. (Strauss Knowledge Translation Funds, 2015-2016, \$12,000)
60. **Thomas A**, **Young M**, Yeung E, **Lubarsky S**, **Dory V**, Varpio L, **Macdonald ME**. Clarifying and contextualizing the relationship between evidence-based practice and clinical reasoning in rehabilitation education. (Centre for Medical Education Seed Fund Program, 2016 - 2017, \$6,500)
61. **Thomas A**. Professionals as scholars: Competency indicators and outcomes of advanced training. (SSHRC Internal Social Sciences and Humanities Development Grant, 2016-2017, \$4,000)
62. **Thomas A**, Bussi eres A, Hall e M-C, **Asseraf-Pasin L**, Steinhauer K, Storr C, **Mak S**. Supporting the development of learners’ evidence-based practice competencies: A qualitative study of faculty and clinical supervisors’ perspectives. (Edith Strauss Rehabilitation Research Project Funding Competition in Knowledge Translation, 2016-2017, \$12,000)
63. **Thomas, A.**, Kairy, D., Ahmed, S., Anaby, D., Bussi eres, A., Rochette, A., & Shikako-Thomas, K. Quebec knowledge translation in rehabilitation strategic initiative. A knowledge translation initiative. Phase 2. (Fonds de recherche du Qu ebec (FRSQ) - R eseau Provincial de Recherche en Adaptation R eadaptation, 2016-2017, \$20,000)
64. **Thomas, A.**, Rochette, A., Lapointe, J., O’Connor, K., Ahmed, S., Bussi eres, A., Letts, L., MacDermid, J., Mayo, N., Polatajko, H., Salbach, N., Paterson, M., Debigare, R., Rappolt, S., Masnyk, K., & Larney, E. Evolution of evidence-based practice: Evaluating the contribution of individual and contextual factors to optimize patient care. Canadian Institutes for Health Research Project scheme grant, 2016-2020, \$294,332)
65. Weinstock D, King N, McDougall C, Ryoa C, Hirose I, Hunt M, Harper S, Williams-Jones B, **Young ME**. Ethics, social determinants of health, and health equity: Integrating theory and practice. (CIHR, 2011 – 2016, \$1,740,300)
66. White D, Bilodeau A, Bourque D, Denis JL, Firbank O, Gilbert F, Touati N, **Rodriguez C**, et al. R eseaux hybrides d’intervention dans le domaine sociosanitaire. (FRQS Soutien aux  equipes de recherche, 2014-2019, \$587,950)



67. Whitehead C, Kuper A, Purkis M, **Razack S**. Better education for better teamwork: Understanding the discourses to improve the practices of interprofessional education. (CIHR Health Services and Policy Research Operating Grant, 2013-2016, \$106,255)
68. Wideman T, Miler J, Bostick G, Bussi eres A, **Thomas A**. Integrating international guidelines for pain education within physiotherapy programs across Canada: Development of a stakeholder-generated implementation plan. (Strauss Knowledge Translation funds, 2015-2016, \$12,000)
69. **Young M, Bhanji F, Thomas A, Lubarsky S, Dory V, Torabi N**, Durning S. Understanding diagnostic error: a scoping study of the role of ambiguity and uncertainty in reasoning and error. (CIHR - Knowledge Transition Grant, 2016 - 2018, \$35,000)
70. **Young M, Thomas A, Dory V, Torabi N, Lubarsky S**. What makes clinical reasoning complex, ambiguous, difficult, or uncertain? A scoping study of the health professions education literature. (The Centre for Medical Education Innovation and Research Seed Fund, 2015-2017, \$9,900)
71. **Young ME**. How does an assessment approach become the valid standard of practice? A case study of Multiple Mini Interview. (Internal Social Science and Humanities Development Grants, 2016-2017, \$7,000)

**APPENDIX II – PUBLICATIONS IN MEDICAL EDUCATION*****Journal Articles***

1. Adler MD, Overly FL, Nadkarni VM, Davidson J, **Gottesman R, Bank I**, Marohn K, Sudikoff S, Grant VJ, Cheng A; (INSPIRE) CPR Investigators. An approach to confederate training within the context of simulation-based research. *Simul Healthc*. 2016; 11(5):357-362.
2. Aloosh M, Noureldin YA, **Andonian S**. Transfer of flexible ureteroscopic stone-extraction skill from a virtual reality simulator to the operating theatre: A pilot study. *J Endourol*. 2016; 30(10):1120-1125.
3. AlReefi MA, **Nguyen LHP**, Mongeau LG, Haq B, Boyanapalli S, Hafeez N, Cegarra-Escolano F, Tewfik MA. Development and validation of septoplasty training model using 3d printing technology. *International Forum of Allergy & Rhinology*. 2016; 7(4): 399-404.
4. **Asseraf-Pasin L**, Perlman C. Initiatives interprofessionnelles à l'université McGill, Kinésithérapie la Revue 2016; 16(175):28–31.
5. Baarends E, Van der Klink M, **Thomas A**. An exploratory study on the teaching of evidence-based decision making. *The Open Journal of Occupational Therapy*.
6. **Bank I**, Khalil E. Are pediatric emergency physicians more knowledgeable and confident to respond to a pediatric disaster after an experiential learning experience? *Prehospital and Disaster Medicine*. 2016.
7. Barrett A, Galvin R, **Steinert Y**, Scherpbier A, O'Shaughnessy A, Walsh G, Horgan M. Profiling postgraduate workplace-based assessment implementation in Ireland: A retrospective cohort study. *Springer Plus*. 2016; 5:133.
8. Barrett A, Galvin R, **Steinert Y**, Scherpbier A, O'Shaughnessy A, Horgan M, Horsley T. A BEME (Best Evidence in Medical Education) review of the use of workplace-based assessment in identifying and remediating underperformance among postgraduate medical trainees: BEME Guide No. 43. *Medical Teacher*. 2016; 38(12): 1188-1198.
9. Bussi eres A, Al Zoubi F, Stuber K, French S, Boruff J, Corrigan J, **Thomas A**. Evidence-based practice, research utilization, and knowledge translation in chiropractic: A scoping review. *BMC Complementary and Alternative Medicine*. 2016; 16(216):1-15.
10. Calhoun A, **Bhanji F**, Sherbino J, Hatala R. Simulation for high-stakes assessment in pediatric emergency medicine. *Clinical pediatric emergency medicine*. 2016; 17(3): 212-23.
11. Carraccio C1, Englander R, Van Melle E, Ten Cate O, Lockyer J, Chan MK, Frank JR, **Snell L**. Advancing competency-based medical education: A charter for clinician-educators. *Academic Medicine*. 2016; 91(5):645-9.
12. Carsley, D., Heath, N. L., **Gomez-Garibello, C.**, & Mills, D. J. The role of trait mindfulness in adolescents' anxiety and dropout intentions. *Journal of Child and Family Studies*. 2016; 9(1):78-86.
13. **Cruess R, Cruess S, Steinert Y**. Amending Miller's pyramid to include professional identity formation. *Academic Medicine*. 2016; 91(2):180-185.
14. **Cruess S, Cruess R, Steinert Y**. Entitlement in medical education: An ongoing discourse. Invited commentary. *Canadian Medical Education Journal*. 2016; 7(2):142-143.



15. Dennhardt S, Apramian T, Lingard L, **Torabi N**, Arntfield S. Rethinking research in the medical humanities: a scoping review and narrative synthesis of quantitative outcome studies. *Medical education*. 2016; 50(3): 285-299.
16. **Dory V**, Gagnon R, Charlin B, Vanpee D, Leconte S, Duyver C, **Young M**, Loye N. In brief: Validity of case summaries in written examinations of clinical reasoning. *Teaching and Learning in Medicine*. 2016; 28(4):375-384.
17. Elharram M, Lalande A, Ge S, Dinh T, Gao S, **Noel G**. Collaborative development of an international training program in surgery, pathology, anatomy and medical education: Exploration of the value in exchange experiences between Haitian, Rwandan and Canadian medical students. *Annals of Global Health*. 2016; 82(3):351-352.
18. Fatani M, **Lachapelle K**, **Bhanji F**, McLeod P. Echocardiography training for cardiac surgery residents: results of a Canadian needs assessment. *J Cardiothorac Surg*. 2016; 11(1):106.
19. **Finkelstein A**, Ferris J, Weston C, **Winer L**. Research-informed principles for (re)designing teaching and learning spaces. *Journal of Learning Spaces*. 2016; 5(1):26-40.
20. Harley JM, **Lajoie SP**, Frasson C, Hall NC. Developing emotion-aware, advanced learning technologies: A taxonomy of approaches and features. *International Journal of Artificial Intelligence in Education*. 2016; 27(2): 268-297.
21. Harley JM, Poitras EG, Jarrell A, Duffy MC, **Lajoie, SP**. Comparing virtual and location-based augmented reality mobile learning: Emotions and learning outcomes. *Educational Technology Research and Development*. 2016; 64(3):359-388.
22. Hogaboam PT, Chen X, Hmelo-Silver CE, **Lajoie SP**, Bodnar S, Kazemitabar M, **Wiseman J**, Chan LK. Data dashboards to support facilitating online problem-based learning. *Quarterly Review of Distance Education*. 2016; 17(3):75-91.
23. Hovey R, **Rodríguez C**, Jordan S, Morck A. Synergistic research in medical education: Some philosophical reflections. *Journal of Applied Hermeneutics*. 2016; 8: 1-10.
24. Hsieh MJ, **Bhanji F**, Chiang WC, Yang CW, Chien KL, Ma MH. Comparing the effect of self-instruction with that of traditional instruction in basic life support courses: A systematic review. *Resuscitation*. 2016; 108: 8-19.
25. Jain S, Menon K, Piquette D, **Gottesman R**, Hutchison J, Gilfoyle E. The development of a critical care resident research curriculum - a needs assessment. *Can Respir J*. 2016; 97(9)
26. Jang EE, **Lajoie SP**, **Wagner M**, Xu Z, Poitras E, Naismith L. Person-oriented approaches to profiling learner in technology rich-learning *Journal of Computing Educational Research*. 2016; 54(9):1-46.
27. Jarrell A, Harley JM, **Lajoie SP**. The link between achievement emotions, appraisals and task performance: Pedagogical considerations for emotions in CBLEs. *Journal of Computers in Education*. 2016; 3(3):289-307.
28. Kiesewetter J, Kollar I, Fernandez N, **Lubarsky S**, Kiessling S, Fischer MR, **Charlin B**. Crossing boundaries on scripts in medical education: A call for instructional integration of script concepts. *J Interprof Care*. 2016; 30 (5), 689-692.
29. Kumagai A, Jackson B, **Razack S**. Cutting close to the bone: student trauma, free speech, and institutional responsibility in medical education. *Academic Medicine*. 2016; 92(3):318-323.



30. Leduc K, Williams S, **Gomez-Garibello C**, Talwar V. The contributions of mental state understanding and executive functioning to preschool-aged children's lie-telling. *British Journal of Developmental Psychology*. 2016; 35(2): 288-302.
31. Lee L, **Lajoie SP**, Poitras EG, Nkangu M, Doleck T. Co-regulation and knowledge construction in an online synchronous problem based learning setting. *Education and Information Technologies*. 2016; 1–28
32. Lee SS. and **Noel G**. Assessment of a Novel Team-Based Learning tool in in a Canadian Dental Hygiene Class. *International Journal of Dental Hygiene*. 2016.
33. Lepièce B, Reynaert C, van Meerbeeck P, **Dory V**. Social dominance theory and medical specialty choice. *Advances in Health Sciences Education*. 2016; 21(1):79-92.
34. Lewis D, Pluye P, **Rodríguez C**, Grad R. Mining reflective continuing medical education data for family physicians learning needs. *The Journal of Innovation in Health Informatics*. 2016; 23 (1): 439-440.
35. **Mak S**, Scurti S, Tardif T, Boucher D, **Constantin E**. Universities as proficient collaborators in maximizing provincial student mobility. *Occupational Therapy Now*. 2016; 19(1):10-12.
36. Maniate J, Cooke L, Dath D, Leslie K, Busari J, **Snell L**. Supporting clinician educators to achieve “work-work balance”. *Can. J. Medical Education*. 2016; 7(2):114-120.
37. Moore, K, **Gomez-Garibello C**, Bosacki S, Talwar V. Children's spiritual lives: the development of a children's spirituality measure. *Religions*. 2016; 7, 95.
38. Morrison LJ, de Caen A, **Bhanji F**, Bigham BL, Blanchard IE, Brooks SC, Guerguerian AM, Jensen JL, Travers AH, Vaillancourt C, Welsford M, Woolfrey K. What is new in the 2015 American Heart Association guidelines, what is recycled from 2010, and what is relevant for emergency medicine in Canada. *Can Journal of Emerg Med*. 2016;18(3):223-9.
39. Muis K, Psaradellis C, Chevrier M, Di Leo I, **Lajoie SP**. Learning by preparing to teach: Fostering self-regulatory processes and achievement during complex mathematics problem solving. *Journal of Educational Psychology*. 2016; 108(4): 474-492.
40. Nguyen Q, Bartlett G, **Tellier PP**, **Rodríguez C**. Young adults on the perceived benefits and expected use of personal health records: a qualitative descriptive study. *The Journal of Innovation in Health Informatics*. 2016; 23 (1): 466-475.
41. Noureldin YA, Aloosh M, **Andonian S**. How to use virtual-reality simulators to assess competency in basic endourologic and robotic skills? *J Endourology: Part B Videourology*. 2016.
42. Noureldin YA, Elkoushy MA, Aloosh M, Carrier S, Elhilali MM, **Andonian S**. Objective structured assessment of technical skills for the photoselective vaporization of the prostate procedure (PVP-OSATS): A pilot study. *J Endourol*. 2016; 30(8):923-9.
43. Noureldin YA, Fahmy N, Anidjar M, **Andonian S**. Is there a place for virtual reality simulators in assessment of competency in percutaneous renal access? *World J Urol*. 2016; 34(5):733-9.
44. Noureldin YA, Stoica A, Kaneva P, **Andonian S**. Impact of training on three-dimensional versus two-dimensional laparoscopic systems on acquisition of laparoscopic skills in novices: a prospective comparative pilot study. *Biomed Res Int*. 2016; 41(9):76-93.
45. Noureldin YA, Stoica A, Kassouf W, Tanguay S, Bladou F, **Andonian S**. Incorporation of the da vinci surgical skills simulator at urology objective structured clinical examinations (OSCEs): A pilot study. *Can J Urol*. 2016; 23(1):8160-6.



46. **Nugus P**, Désalliers J, Graves L, Macaulay A. Localizing global medicine: Challenges and opportunities in cervical screening in an indigenous community in rural Ecuador. *Qualitative Health Research*. 2016.
47. **Nugus P**, Ranmuthugala G, Greenfield D, Travaglia J, Braithwaite J. What happens when you disrupt networks of clinical providers? “Knots” and “frays” in the co-location of aged and rehabilitation services? *Social Science & Medicine*. 2016.
48. **Nugus P**, Ranmuthugala G, Greenfield D, Travaglia J, Kolne K, Lamothe J. Translating care coordination policy to practice: A mixed-method participatory study. *Journal of Health Organization & Management*. 2016.
49. Ortega-Deballon I, Hornby L, Shemie SD, **Bhanji F**, Guadagno E. Extracorporeal resuscitation for refractory out-of-hospital cardiac arrest in adults: A systematic review of international practices and outcomes. *Resuscitation*. 2016; 101: 12-20.
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52. Poitras EG, **Lajoie SP**, Doleck T, Jarrell A. Subgroup discovery with user interaction data: An empirically guided approach to improving intelligent tutoring systems. *Educational Technology & Society*. 2016; 19(2):204–214.
53. Poitras EG, Naismith L, Doleck T, **Lajoie SP**. Using learning analytics to identify medical student misconceptions in an online virtual patient environment. *Online Learning*. 2016; 20 (2):2472-5730.
54. Pugh D, **Bhanji F**, Cole G, Dupre J, Hatala R, Humphrey-Murto S, Touchie C, Wood T. Do objective structured clinical examination progress test scores predict performance in a national high-stakes examination? *Med Educ*. 2016; 50(3): 351-358.
55. **Razack S**: Fairness and student selection: the case for mandatory air quotes. *Medical Education*. 2016; 50(6):600-2.
56. Sanz-Baños Y, Pastor-Mira MA, Velasco L, López-Roig S, Peñacoba C, **Rodríguez C**. To walk or not to walk: insights from a qualitative description study with women suffering from fibromyalgia. *Rheumatology International*. 2016; 36: 11-35.
57. Schwartz J, Costescu A, Marscarella MA, **Young M**, Husein M, Agrawal S, Roth K, Doyle P, **Nguyen LHP**. Objective assessment of myringotomy and tympanostomy tube insertion: a prospective, single-blinded validation study. *Laryngoscope*. 2016; 126(9):2140-2146.
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59. **Steinert Y, Thomas A**. When we say... literature reviews. *Medical Education*. 2016; 50(4):398-399.
60. **Steinert, Y**, Mann K, Anderson B, Barnett B, Centeno A, Naismith L, Prideaux D, Spencer J, Tullo E, Viggiano T, Ward H, Dolmans D. A systematic review of faculty development initiatives designed to



- enhance teaching effectiveness: A 10-year update: BEME Guide No. 40. *Medical Teacher*. 2016; 38(8): 769-86.
61. **Sternszus R, Cruess S**. Learning from role models: Making the implicit explicit. *The Lancet*. 2016; 387, 1257-1258
62. **Sternszus R, Macdonald ME, Steinert Y**. Resident role modeling: It just happens. *Academic Medicine*. 2016; 91(3):427-432.
63. St-Onge C, **Young M**, Eva K, Hodges B. Validity: one word with a plurality of meanings. *Adv Health Sci Educ Theory Pract*. 2016.
64. **Sun NZ**, Anand P, **Snell L**. Optimizing the design of high-fidelity simulation-based training activities using cognitive load theory - lessons learned from a real-life experience. 2016; 11(2):151-158.
65. **Sun NZ**, Gan R, **Snell L**, Dolmans D. Use of a night float system to comply with resident duty-hours restrictions: Perceptions of workplace changes and their effects on professionalism. *Academic Medicine*. 2016; 91(3):401-8.
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67. **Thomas A**, Bussi eres A. (Invited paper for series entitled: *Last Page*). Towards a greater understanding of implementation science in health professions education. *Academic Medicine*. 2016; 91(12):e19.
68. **Thomas A**, Bussi eres A. (Invited paper for series entitled: *Last Page*). Knowledge translation and implementation science in health professions education: Time for clarity? *Academic Medicine*. 2016; 91(12), e20.
69. **Thomas A, Lubarsky S**, Durning SJ, **Young M**. Knowledge syntheses in medical education: demystifying scoping studies. *Acad Med*. 2016; 92(2):161-166.
70. **Thomas A**, Lysaght R, Lee M, Bossers A. Occupational therapy education research: Results of a national survey. *American Journal of Occupational Therapy*. 2016; 70(5): 1-9.
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73. Varpio L, St-Onge C, **Young M**. Academic promotion packages: crafting connotative frames. *Perspectives in Medical Education*. 2016; 5(6):354-7.
74. **Ventura N**, Alfaro P, Hudon J, Larouche S. and **Noel G**. An Interprofessional Near Peer Anatomy Teaching Experience between Nursing and Medical Students. *Academic Medicine*. 2016.
75. Willoughby K, **Rodr guez C, Boillat M**, Dove M, **Nugus P, Steinert Y, Lalla L**. Assessing students' perceived effectiveness of a new Canadian longitudinal pre-clerkship family medicine experience. *Education for Primary Care*. 2016; 27(3):1-8.
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77. **Winer L**, diGenova L, Costopoulos A, Cardoso K. Addressing common concerns about online student ratings of instruction: A research-informed approach. *Canadian Journal of Higher Education*. 2016; 46(4):115-131.



Monographs, Books and Book Chapters

1. **Bell L.** Transition Challenges in: Pediatric Dialysis Case Studies. In Warady BA, Schaefer F, Alexander SR (Eds.) A Practical Guide to Patient Care. 1st edition. Springer International Publishing; 2016.
2. Bertrand C, **Dory V**, Pelaccia T, **Charlin B**, Hodges B. Comprendre les Principes Généraux de L'évaluation. In: Pelaccia T, editor. Comment (Mieux) Former et Évaluer les Étudiants en Médecine et en Sciences de la Santé. Louvain-la-Neuve: De Boeck Supérieur; 2016:343-355.
3. Bertrand C, **Dory V**, Pelaccia T, et al. Choisir Un Outil D'évaluation. In: Pelaccia T, editor. Comment (Mieux) Former et Évaluer les Étudiants en Médecine et en Sciences de la Santé. Louvain-la-Neuve: De Boeck Supérieur; 2016 :357-370.
4. **Boudreau D.** Reflective Time Capsules. In : Keeping Reflection Fresh-A Practical Guide for Clinical Educators. Eds. Brett-Maclean P, Peterkin A. 2016. Kent State University Press
5. **Boudreau D.** The Evolution of an Undergraduate Medical Program on Professionalism and Identity Formation. In: Teaching Medical Professionalism. Second Edition. Eds. **Cruess RL, Cruess SR, Steinert Y.** 2016. Cambridge University Press. New York, NY.
6. **Cruess R, Cruess S, Steinert Y.** (Eds.) Teaching Medical Professionalism: Supporting the Development of a Professional Identity. Cambridge, UK: Cambridge University Press, 2016.
7. Gilfoyle E, Ng E, **Gottesman R.** Simulation-Based Team Training. In: Cheng A, Grant VJ (eds). Comprehensive Healthcare Simulation (Pediatrics). Springer; 2016: 43-55.
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10. Ranellucci J, Poitras EG, Bouchet F, **Lajoie SP**, Hall NC. Emotions, technology, and social media through educational data mining. In Tettegah S, Ferdig RE. Emotions, Technology, and Social Media. 1st ed. San Diego, CA: Elsevier; 2016: 85-104.
11. **Snell L.** Supporting Professionalism and Professional Identity Formation at the Postgraduate Level. In **Cruess R, Cruess S, Steinert Y.** (Eds.) Teaching Medical Professionalism: Supporting the Development of a Professional Identity. Cambridge: UK: Cambridge University Press; 2016: 248-261
12. **Steinert Y.** Educational Theories and Strategies to Support Professionalism and Professional Identity Formation. In **Cruess R, Cruess S, Steinert Y.** (Eds.) Teaching Medical Professionalism: Supporting the Development of a Professional Identity. Cambridge: UK: Cambridge University Press; 2016: 68-84.
13. **Steinert Y.** Faculty Development To Support Professionalism And Professional Identity Formation. In **Cruess R, Cruess S, Steinert Y.** (Eds.) Teaching Medical Professionalism: Supporting the Development of a Professional Identity. Cambridge: UK: Cambridge University Press; 2016: 124-140.
14. **Steinert, Y.** Staff Development. In Dent JA, Harden RM (Eds.) A Practical Guide for Medical Teachers. 4th Edition. Edinburgh: Churchill Livingstone; 2016: 369-377.



15. **Sternszus R.** Developing a Professional Identity: A Learner's Perspective. In: **Cruess R, Cruess S, Steinert Y.** Teaching Medical Professionalism: Supporting the Formation of a Professional Identity. 2nd ed. Cambridge, UK: Cambridge University Press; 2016: 26-36.
16. **Wiseman J,** Blanchard E, **Lajoie SP.** The deteriorating patient smartphone App: Towards serious game design. In Bridges S, Chan LK, Hmelo-Silver CE (Eds.) Educational Technologies In Contextual Learning: Research In Health Professions Education. Springer; 215-234.

**APPENDIX III – VISITORS TO THE CENTRE**

Guests	Topic
Rita Charon Columbia University Medical Centre	Teaching Toward Attention: The Pedagogies of Narrative Medicine
Jennifer Cleland University of Aberdeen	Curriculum Reform: The More Things Change, the More they Stay the Same?
Daniel Jones Harvard Medical School	The Simulation Centre as the Hub of Education Research and Innovation
John Launer Health Education England	Conversations Inviting Change: Narrative Practice in Healthcare
Glenn Regehr Centre for Health Education Scholarship, University of British Columbia	Fields and Disciplines, Phenomena and Theories: The Scholarship Enterprise in Health Professions Education
Lara Varpio Uniformed Services University of the Health Sciences	Building the Community of Health Professions Education Scholars; Sharing Lessons Learned for Developing and Maintaining Successful Health Professions Education Units
Sydnee Smee Evaluation Bureau, Medical Council of Canada	New Trends in Assessment at the MCC

Visitors and Visiting Scholars	Institution
Dr. Renato Antunes dos Santos	Universidade de Sao Paulo
Dr. Edvin Schei	University of Bergen
Dr. Yusuke Takamiya	Showa University
Dr. Satoru Tsuneto	Kyoto University
Dr. Yuka Miyachi	Kyoto University

**APPENDIX IV – HONOURS, AWARDS & RECOGNITION****Alfieri, Joanne**

- Recipient of the Class of 77 MedEd Innovation Grants Program

Asseraf-Pasin, Liliane

- Awarded the Prix Excellence from the Ordre professionnel de la physiothérapie du Québec (OPPQ).

Bhanji, Farhan

- Awarded the Paediatric Academic Leadership - Clinician Educator Award by Paediatric Chairs of Canada for excellence in leadership through the advancement of educational innovation and practice that advances the quality of teaching related to children and youth and more broadly.

Boudreau, J Donald

- Appointed to the position of Acting Director, Centre for Medical Education

Cruess Richard and Cruess, Sylvia

- Joint recipients of the McGill University Lifetime Achievement Award for Leadership in Learning

Cummings, Beth-Ann

- Named to the Faculty Honour List for Educational Excellence for 2016-2017.

Dandavino, Mylène

- Newly nominated to the position of Vice-Chair of Clinical Operations in the Department of Pediatrics

Gomez-Garibello, Carlos (with Dory V, Snell L, Wiseman J, Duffy M, Aalamian A and Steinert Y)

- Recipients of the Centre for Medical Education Innovation and Research Seed Fund

Lajoie, Susanne

- Received the Wyng Foundation for Distinguished Lecturer

Lubarsky, Stuart

- Appointed Director of Education Research at the American Academy of Neurology for a second year.

Mak, Susanne

- Selected as the 2016 recipient of the Jonathan Campbell Meakins and Family Memorial Fellowship

Nguyen, Lily

- Co-recipient of the Prix d'innovation pédagogique from the Conseil Québécois de développement professionnel continu des médecins (CQDPCM).



Snell, Linda

- Awarded the Ian Hart Award for Distinguished Contribution to Medical Education by the Canadian Association of Medical Education

Thomas, Alik (with **Young M**, Yeung E, **Lubarsky S**, **Dory V**, Varpio L and **Macdonald ME**)

- Recipients of the Centre for Medical Education Innovation and Research Seed Fund

Wiseman, Jeffery

- Received the 2016 Canadian Society of Internal Medicine Osler Award. This award is presented annually to an individual who demonstrated excellence in achievement in the field of general internal medicine, either in clinical practice, research, medical education or specialty development.
- Co-recipient of the 2016 Transition to Clinical Practice (TCP) Internal Medicine Teaching Award (This award is given to the physician who received the most nominations by the students completing TCP Internal Medicine.).

Ventura, Nicole

- Became Co-Chair of the Commemorative Service Committee (responsible for organizing the commemorative service to honour our donors)

**APPENDIX V – FACULTY, CENTRE FOR MEDICAL EDUCATION**

Core Faculty	
Name	Department
Vanessa Anastasopoulos	Assessment and Evaluation
J. Donald Boudreau	Internal Medicine
Richard Cruess	Centre for Medical Education
Sylvia Cruess	Centre for Medical Education
Beth-Ann Cummings	Internal Medicine
Valérie Dory	Assessment and Evaluation
Tim Dubé	Curriculum Design and Alignment
Carlos Gomez-Garibello	Assessment and Evaluation
Stuart Lubarsky	Neurology and Neurosurgery
Mary Ellen Macdonald	Oncology and Nursing
Saleem Razack	Pediatrics
Linda Snell	Internal Medicine
Yvonne Steinert	Family Medicine
Robert Sternszus	Pediatrics
Maryam Wagner	Assessment and Evaluation
Jeffrey Wiseman	Internal Medicine

Research Scientists	
Name	Department
Peter Nugus	Sociology
Aliki Thomas	Physical and Occupational Therapy
Meredith Young	Cognitive Psychology



Centre Members	
Name	Department
Rajesh Aggarwal	Simulation
Sero Andonian	Urology
Liliane Asseraf-Pasin	Physical and Occupational Therapy
Ilana Bank	Pediatrics
Lorraine Bell	Pediatrics
Laeora Berkson	Internal Medicine
Farhan Bhanji	Pediatrics
Miriam Boillat	Family Medicine
Radan Čapek	Pharmacology and Therapeutics
Colin Chalk	Neurology and Neurosurgery
Evelyn Constantin	Postgraduate Medical Education
Mylène Dandavino	Pediatrics
Elaine Doucette	Nursing
Michelle Elizov	Internal Medicine
Ronald Gottesman	Pediatric Critical Care Medicine
Terry Hébert	Pharmacology and Therapeutics
Tom Hutchinson	Whole Person Care
Kevin Lachapelle	Surgery
Susanne Lajoie	Educational and Counselling Psychology
Leonora Lalla	Family Medicine
Susan Law	Family Medicine
Annette Majnemer	Physical and Occupational Therapy
Susanne Mak	Physical and Occupational Therapy
Markus Martin	Obstetrics and Gynecology
Sarkis Meterissian	Surgery and Oncology
Mélanie Mondou	Undergraduate Medical Education
Fraser Moore	Neurology and Neurosurgery
Lily Ha-Nam Nguyen	Otolaryngology
Geoffroy Noel	Anatomy and Cell Biology
Joyce Pickering	Medicine
Norma Ponzoni	Nursing
Charo Rodriguez	Family Medicine
Elisa Ruano-Cea	Pediatrics
Ruth Russell	Psychiatry
Ning-Zi Sun	Internal Medicine
Pierre-Paul Tellier	Family Medicine
Nazi Torabi	Liaison Librarian
Claire Trottier	Microbiology and Immunology
Teresa Valois	Anesthesia and Pediatrics



Centre Members	
Name	Department
Nicole Ventura	Anatomy and Cell Biology

Postdoctoral Fellows	
Name	Area of Specialty
Marie-Christine Halle	Series of Intervention Studies in KT and in EBP competency development in health professions
Lerona Lewis	Faculty Development, Culture, and the Professional Identity of Faculty Members

Affiliate Members	
Name	Department
Armand Aalamian	Postgraduate Medical Education
Bernard Charlin	Director of Research and Development, CPASS, Université de Montréal
Deborah Danoff	Adjunct Professor, Department of Medicine, McGill University
Adam Finkelstein	Academic Associate, Teaching and Learning Services
Laura Winer	Director, Teaching and Learning Services

Masters Students	
Name	Discipline
Aisha Al Khamisi	Emergency Medicine
Alina Levtova	Medical Genetics
Nisreen Maghraby	Emergency Medicine
Fareeda Hani Mukhtar	Radiology
Fadi Toonsi	Diagnostic Radiology
Shizuma Tsuchiya	Palliative Care