

Centre for Medical Education Annual Report

January 1 to December 31, 2015



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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 16 Core Faculty (including 3 Research Scientists) and 40 Centre Members have had a very productive and successful year and we hope to acknowledge some of their accomplishments in this report.

RESEARCH AND PUBLICATIONS

Grants and Research Awards Received

A focus on research and scholarship in health professions education remains a key priority for the Centre for Medical Education. This past year, Core Faculty and Centre Members held 65 grants in medical education (as outlined in **Appendix I**) totaling \$22,718,133, of which 26 were new research grants, totaling \$5,821,217. 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 two initiatives: The Class of '77 Medical Education Innovation Grants Program and the Centre for Medical Education Innovation and Research Seed Fund. The Class of '77 Medical Education Innovation Grants were awarded to Drs. Ilana Bank and Miriam Boillat for their respective projects, *Large-Scale Simulation of a CBRNe Disaster: Advancing Safety and Whole-Hospital Learning*, and *Starting the Teaching Journey: An Innovative Longitudinal Faculty Development Program for New Teachers*. The newly created Medical Education Innovation and Research Seed Fund was awarded to Dr. Meredith Young and her colleagues, Drs. Aliko Thomas, Valérie Dory, Naz Torabi and Stuart Lubarsky, for their project entitled: *What Makes Clinical Reasoning Complex, Ambiguous, Difficult or Uncertain? A Scoping Study of the Health Professions Education Literature*. This seed fund also led to the successful submission of a grant to CIHR in 2016.

Additional grants to highlight this year included the following: (1) A grant from the Arnold P. Gold Foundation, which was awarded to Dr. Deborah Danoff, along with Drs. Donald Boudreau, Aliko Thomas and Yvonne Steinert, for a project entitled: *Professional Identity Formation in Medicine: How Does Humanistic Healthcare Education with a Focus on Patient Centeredness Help to Shape that Identity?*; (2) A grant from FRQS-RSBO, which was awarded to Dr. Mary Ellen Macdonald and colleagues for a knowledge transfer project on *Improving Oral Health Care for the Institutionalized Elderly: Moving Knowledge into Action*; (3) A grant from the Medical Council of Canada, which was awarded to Dr. Meredith Young and colleagues on *Which, Why and How Are Item Analysis Guidelines Applied When Monitoring the Quality of Examinations?* (4) A grant from the Royal College of Physicians and Surgeons of Canada, which was awarded to Dr. Carlos Gomez-Garibello, along with Drs. Valérie Dory, Meredith Young, Robert Sternszus, Armand Aalamian, Richard and Sylvia Cruess, Elisa Ruano and Sero Andonian on *Developing a Rubric to Assess Residents' Workplace-Based Teaching as an Entrustable Professional Activity*; and (5) A grant from the Association for Medical Education in Europe, which was awarded to Drs. Aliko Thomas and Yvonne Steinert, together with colleagues from the Netherlands and the USA.

Several research and strategic planning retreats were also held throughout the year to stimulate conversation on how to move research and education portfolios forward at the Centre. Conversation topics included: new opportunities for scholarship and knowledge translation, the need for research



support, and the value of peer review for grant submissions. We also discussed current and future educational programs, new revenue-generating opportunities, and raising the Centre's profile at a national and international level.

Lastly, to ensure that our research and scholarly activities are in line with the Faculty's Research 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 submission. Topics included: *Curriculum Mapping for the Instructional Method of Emergency Medicine Simulation Training*; *From Residents as Teacher to Resident as Role Model – Bringing Resident Teaching to the Next Level*; *A Qualitative Study of Clinical Competence as Experienced and Practiced by Expert-Clinicians*; *Exploring the Evolving Concept of Patient Ownership in the Era of Resident Duty Hour Regulations*; and *How do Residents Define Wellness*. We also held several in-house seminars to enhance our Core Faculty Members' knowledge and understanding of research principles and practices. This year, our research capacity building sessions included an *Advanced Seminar Series on Theoretical Foundations in MedEd Research*, led by Dr. Mary Ellen Macdonald, and an *Advanced Seminar Series on Sociology and MedEd*, led by Dr. Peter Nugus.

Publications

Knowledge translation and dissemination of research findings and educational innovations remains a critically important priority for the Centre. This year, Core Faculty and Centre Members published a total of 80 articles and book chapters in a variety of medical education and specialty journals (as outlined in **Appendix II**). This increase from last year includes publications on topics relating to professional identity formation, faculty development, evidence-informed medical education, the humanities in medical education, simulation and other technologies to enhance teaching and learning, assessment, and clinical reasoning. Drs. Richard and Sylvia Cruess, together with Dr. Yvonne Steinert, also completed the second edition of their book on *Teaching Medical Professionalism*, with a particular focus on supporting professional identity formation. Core Faculty, including Drs. Donald Boudreau, Linda Snell and Robert Sternszus, contributed new chapters to this edition.

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 110 presentations at local, national and international conferences and events, of which 20 were keynote or invited plenary presentations. Various themes were addressed in these scholarly presentations and included competency-based medical education, assessment and evaluation, professionalism and professional identity formation, faculty development, and clinical reasoning. The Centre was also well represented at the joint Asia Pacific Medical Education Conference (APMEC) and the International Conference on Faculty Development in the Health Professions (ICFDHP) held in Singapore, at the Canadian Conference on Medical Education (CCME) held in Vancouver, BC, and at the annual meeting of the Association for Medical Education in Europe (AMEE) in Glasgow, UK.

Large group presentations and workshops were also held in universities and medical schools in Australia, Chile, France, Germany, Haiti, Mexico, Oman, Scotland, Singapore, Spain, Sweden, Switzerland, Thailand, the United Kingdom, and the United States. Of particular note, Drs. Richard and Sylvia Cruess made significant contributions to the University of North Carolina and New York University. Their initial visits led to major changes in these educational programs and they were asked to return to both institutions to give a series of presentations and workshops to assist colleagues in the transition from teaching



professionalism to supporting professional identity formation as an educational objective. Dr. Yvonne Steinert also gave the closing plenary at the annual meeting of the American Association of Medical Colleges (AAMC) on *Implementation Science in Medical Education*.

TEACHING AND LEARNING

Initiatives and Innovations

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

Not only did Dr. Peter Nugus design and deliver a new *Advanced Seminar Series on Sociology and Medical Education* at the Centre for Medical Education, he also created a new 3-credit graduate ethnography course for the Department of Family Medicine. This was the first time a graduate ethnographic methods course was offered at McGill. In addition, together with Dr. Yvonne Steinert, Dr. Nugus successfully organized and welcomed seven international speakers to the *Inaugural Conference on Video Ethnography and Care Coordination*.

Dr. Miriam Boillat, along with colleagues in the Faculty Development Office, created the program *Starting Your Teaching Journey at McGill: A Faculty Development Series for New Teachers*, which brought together 78 new teachers in the Faculty of Medicine for a two-day immersion in educational principles, strategies and tools, as well as an opportunity to network with colleagues and make new friends.

Together with Dr. Donald Boudreau and other colleagues, Drs. Richard and Sylvia Cruess helped to change the educational objectives of the undergraduate curriculum as well as the *Physicianship* course from teaching professionalism to supporting professional identity formation. Core Faculty and Centre Members also continued to be active as Osler Fellows for undergraduate medical students and included Drs. Sero Andonian, Laeora Berkson, Beth-Ann Cummings, Mylène Dandavino, Michelle Elizov, Stuart Lubarsky, Markus Martin, Joyce Pickering and Pierre-Paul Tellier. Dr. Terry Hébert also spearheaded a longitudinal 'Bridging the Gap' journal club to connect medical students to basic science and its translation throughout their undergraduate (UGME) experience.

Dr. Leonora Lalla launched the new *Transition to Clinical Practice-Family Medicine* course. This course provides medical students with a greater understanding of the role of interdisciplinarity in the provision of primary care and helps to develop their knowledge of common problems in Family Medicine. It also includes a number of new educational elements including a series of interactive multimedia small group sessions and an *Introduction to Ethnography* for medical students. 2015 also marked the second cohort of the *Longitudinal Family Medicine Experience* course for first year medical students. 190 Family Physicians were successfully recruited to become preceptors as part of this experience, in which medical students attend the preceptor's clinic for 16 half-days over the course of the year.

Lastly, the development of the Assessment and Evaluation Unit flourished with the recruitment of Dr. Carlos Gomez-Garibello, Assistant Professor working with postgraduate medical education (PGME), and Dr. Ilian Cruz-Panesso, in the position of Academic Associate. Alongside Dr. Valérie Dory, Assistant Professor working with UGME, collaborative projects were fostered across UGME and PGME, helping to leverage expertise and increase harmonization across the educational continuum. One notable activity



was the contribution of Dr. Dory in enhancing the quality of written exams by providing course directors with feedback regarding the quality of their multiple choice questions (MCQs). Dr. Dory also developed a template report on item and exam statistics and was instrumental in helping to advance the ongoing evaluation of the new curriculum. At the same time, with the shift to Competency-Based Medical Education (CBME) in PGME, assessment plays a greater role in the education of residents. In particular, assessment tools must be modified or developed, and the potential for feedback must be leveraged. With the addition of Dr. Gomez-Garibello to the team, two major activities were designed to enhance the quality of assessment in PGME. Dr. Gomez-Garibello also led two major innovations: the inclusion of narrative assessment in resident assessments and a renewed focus on feedback and reflection. Both initiatives aim to enhance the process of assessment *for* learning. Dr. Gomez-Garibello also co-chairs the Postgraduate Assessment and Curricular (PACE) Committee, an interdisciplinary team of medical educators interested in designing and implementing best practices related to assessment and evaluation at the Postgraduate level and has actively participated in the creation of a renewed Resident-As-Teacher curriculum.

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 medical education by participating in weekly meetings and individual meetings with Core Faculty and Centre Members. Drs. Tudor Botnaru and Martin Kuuskne (both from Emergency Medicine) also completed their research as Postgraduate Fellows at the Centre. Dr. Botnaru focused his research on competency-based medical education and resident self-assessment, while Dr. Kuuskne's research addressed medical simulation and theories of learning.

The Master of Arts (MA) program in Educational Psychology (Health Professions Stream), which currently includes nine students, is once more under review by members of the Centre as well as individuals in the Faculty of Medicine at large. Discussions on how to improve the MA program, and whether it should be a stand-alone program, including specific streams such as Surgical Education and Simulation, are underway.

Together with Dr. Joyce Pickering, Dr. Yvonne Steinert organized a one-week practicum course entitled *Teaching in the Clinical Setting* to a new cohort of Japanese medical educators from Gifu University. These physicians, who represented a variety of disciplines, shadowed clinicians who were teaching in the context of clinical care, in settings such as the emergency room, the OR, outpatient clinics and inpatient wards. They returned to Japan with concrete plans for how they would incorporate more teaching into their clinical work.

The Centre, together with the Faculty Development Office, offered four Medical Education Rounds (MER) in the past year. The first MER was presented off-campus at the Jewish General Hospital by Dr. Rajesh Aggarwal. The topic of his MER, entitled: *Patient Safety: What is the Role of Simulation?*, was well received by many clinicians, researchers and educators who had attended MER for the first time. As well, Dr. Kevin Eva presented on *Using Improvisational Theatre to Improve the Effectiveness of Feedback: Why Facilitating Performance Improvement Requires Going Off Script*; Dr. Steven Durning presented to a large audience on the topic of *Using Brain Imaging to Explore Clinical Reasoning*; and Dr. Jeffrey Wiseman presented *Getting Serious about Serious Games in Medical Education*. Medical Education Rounds continue to be an important forum for information sharing and exchange.



Lastly, the past calendar year, January 2015 to December 2015, was marked by an AFMC/LCME accreditation visit of the MDCM program, which culminated in probationary status for our undergraduate program. We acknowledge Dr. Donald Boudreau and the many Centre members who played critical roles in crafting the Accreditation Action Plan, transforming the governance structure of the MDCM program, and recruiting new educational leaders for specific dossiers, among many more activities.

INVOLVEMENT IN THE COMMUNITY

Members of the Assessment and Evaluation Unit continue to provide much needed guidance to the community-at-large. Dr. Valérie Dory created a workshop on the new process of work-based assessment in Clerkship (UGME), which was successfully delivered three times, including once in French at the Gatineau site. In collaboration with Dr. Carlos Gomez-Garibello and the Faculty Development Office, she also helped to design and deliver a faculty development activity for new faculty members and postgraduate program directors on diagnosing learners' clinical reasoning difficulties.

Dr. Peter Nugus was featured in the MUHC newsroom to discuss the transition of the McGill University Health Centre (MUHC) to its new location at the Glen site. Along with colleagues from the Desautels Faculty of Management, Dr. Nugus and colleagues have been observing and interviewing staff to document how teams work together and adapt to technology and space, before and after the transition.

Dr. Stuart Lubarsky was invited by the American Academy of Neurology to direct their annual education Colloquium. This year's Colloquium, entitled *Thinking Outside the Toolbox: Assessing Clinical Reasoning in the Modern Era of Medical Education*, included presentations by Drs. Steven Durning and Christina Blum.

Dr. Sarkis Meterissian was appointed Senior Advisor to the Dean in the planning of two educational trips to King Saud University, to review their University structure of postgraduate medical education, and to give workshops on CanMEDS to approximately 50 KSU staff. Drs. Miriam Boillat and Yvonne Steinert contributed significantly to the development of these workshops.

Dr. Lorraine Bell became Vice-Chair of the Royal College Nephrology Examination Board (and Chair for the pediatric component). This 4-year appointment involves active collaboration with the Adult Examination Chair, overseeing and contributing to the development of both the pediatric and adult nephrology certifying examinations, involvement in their implementation and post exam result analysis.

Dr. Lily Nguyen conceptualized, co-developed and co-organized the first Simulation Symposium for Airway Management at the Canadian Society of Otolaryngology - Head and Neck Surgery annual meeting in Winnipeg, Canada. To her knowledge, this was the first simulation-based educational activity offered to community OTL-HNS surgeons in Canada. Participants rotated through six stations (including high-fidelity scenarios, task trainers, etc) addressing various competencies related to acute airway management. It was such a success that the organizers have asked that they hold one every year.

After three years of work, including revising the framework and developing hundreds of milestones for use in competency-based education, Dr. Linda Snell successfully helped launch CanMEDS 2015.



Drs. Richard and Sylvia Cruess served as Co-Chairs of the Legacy committee of the MUHC for the past four years, which in 2015, culminated in a series of celebrations of the past to guide the MUHC along with community involvement in the opening of the Glen Site.

Lastly, many of our Centre Members were involved in various aspects of the relocation of the hospitals to the Glen Site, which included the activation of the inpatient units, training of nurses, support staff, and ward attendings, and a renewed focus on patient care and education. We congratulate all of our colleagues for their hard work and dedication in this time of transition.

MILESTONES

Dr. Stuart Lubarsky was named the 2015-2016 Richard and Sylvia Cruess Faculty Scholar in Medical Education, and will pursue his research in further examining the script concordance test (SCT), a tool that is increasingly being adopted to assess clinical reasoning.

Dr. Claire Trottier was named 'Education Specialist' in the Department of Microbiology and Immunology, and will work alongside the Faculty Development Office to provide medical education to the research-focused departments and institutes.

Several of our Centre Members were also successful in receiving academic promotions within their own disciplines: Dr. Mary Ellen Macdonald (Associate Professor - tenure) and Dr. Robert Sternszus (Assistant Professor).

We also welcomed one new Core Faculty Member (Dr. Carlos Gomez-Garibello) and two new Centre Members (Drs. Armand Aalamian and Claire Trottier) this past year, and thanked our colleagues who moved on to other opportunities (Drs. Hélène Ezer, Rachel Fisher, Jay Nadeau, Hugh Scott, and Melina Vassiliou).

HONOURS, AWARDS AND PRIZES

We are pleased to congratulate the following Core Faculty and Centre Members for their achievements in the past year: Dr. Linda Snell received a Mastership from the American College of Physicians, an honour given to 'highly accomplished persons demonstrating eminence in practice, leadership, or in medical research; Dr. Beth-Ann Cummings received the Medical Council of Canada W. Dale Dauphinee Fellowship, to visit with Dr. Lambert Schuwirth in Australia and advance her knowledge and skills in physician assessment; Dr. Ronald Gottesman received the Clinical-Educator Leadership Award from the Pediatric Chairs of Canada (PCC), in recognition of meritorious clinical and educational contributions; Drs. Stuart Lubarsky and Fraser Moore were awarded the McGill Transition to Clinical Practice (TCP) Neurology co-Teacher of the Year Award; Dr. Geoffroy Noel received the Osler Outstanding Teaching Award; Dr. Yvonne Steinert received the Jack L. Maatsch Visiting Scholar in Medical Education Award from the Office of Medical Education Research and Development, College of Human Medicine from Michigan State University; and Dr. Meredith Young received the Inaugural Early Career Medical Educators Champion Award at the Canadian Conference in Medical Education, for her support and community building efforts amongst the next generation of medical educators. Lastly, the following Centre Members were honored by the Faculty of Medicine's Faculty Honour List for Educational Excellence, in recognition of their outstanding contributions to education in the areas of teaching,



educational leadership and innovation, faculty development, and research and scholarly activity: Drs. Elaine Doucette, Lily Nguyen, and Charo Rodriguez.

ACKNOWLEDGEMENTS

In closing, we would like to acknowledge the philanthropic support that has helped facilitate research and innovation in medical education. The resources provided support our residents, students and faculty members in their goal to improve health professions education and inform educational practice. In particular, we would like to thank: Mrs. Deirdre Stevenson for her generous support of a *Centre for Medical Education Faculty Scholar*, the *Centre for Medical Education Postdoctoral Fellowship*, and the *Centre for Medical Education Innovation and Research Seed Fund*. We aim to foster the growth and development of the next generation of medical educators with this generous gift. We have also received a Class gift from the Class of '74 to support a *Faculty Scholar for Teaching Excellence and Innovation in Medical Education*.

We would also 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; Drs. Michelle Elizov and Farhan Bhanji for their coordination of the Medical Education Electives and Postgraduate Fellowship in the Health Sciences programs; and Drs. Donald Boudreau, 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 also like to acknowledge Ms. Audrey Lew for her management of the Centre, and Ms. Claudia Regier and Ms. Melissa Como for their administrative coordination of all Centre tasks and activities. Lastly, we gratefully acknowledge Dean David Eidelman 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. **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)
2. 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)
3. **Bank I**, Khalil E, **Nugus P**, **Young M.** Large scale simulation of a CBRNe disaster (Chemical-biological-radiation-nuclear-explosive): Advancing safety and whole hospital learning. (Class of '77 Med Ed Innovation Grants Program, 2015, \$4000)
4. **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)
5. 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)
6. 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)
7. **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)
8. Feeley N, Cossette S, **Ezer H.** Réseau de recherche interuniversitaire en sciences infirmières de Montréal (RIISIQ). (FRQS Infrastructure Grant, 2014-2019, \$2,000,000)
9. Fisher R, **Bank I**, **Nguyen LHP**, Hickey C, Lapointe A, Giguere C, Levy A, Yung F, **Young M.** Évaluation d'une formation en travail d'équipe interdisciplinaire pour la gestion de situations de crise via la simulation. (Bourse en pédagogie médicale pédiatrique, 2013 – 2015, \$5000)
10. Giguère A, Légaré F, **Rodriguez C**, Castonguay M, Kröger E, Martineau B, Matte Y, Morin M, Voyer P, Witteman H. Développement d'outils de transfert de connaissances pour la prestation de soins et de services de première ligne centrés sur le patient âgé atteint de maladie d'Alzheimer et autres démences. (Ministère de l'Économie, de l'Innovation et de l'Exportation du Québec & Société de valorisation partenaire du CHU de Québec et de l'Université Laval, \$460,000 + \$10,000 + \$ 30,000 (Giguère's infrastructure budget) + \$ 20,000 (in-kind from VDPDPC) = \$520,000)



11. Giguère A, **Rodriguez C**. Développement professoral interprofessionnel en soins aux personnes âgées vulnérables en première ligne. (Ministère de la santé et des services sociaux du Québec, 2013-2015, \$112,500)
12. Girard F, Mathieu L, **Ezer H**, Cardinal S, Goudreau J, Beaulieu M, Boucher P, Schemdt ME, Blais S, Trudeau D. État des lieux sur la Phase I du continuum de formation infirmière intégrée DEC-BAC (Phase 2). (Projet provincial des consortiums collèges-universités impliqués dans le programme de formation infirmière intégrée DEC-BAC, 2010-2015, \$258,698)
13. **Gomez-Garibello C, Dory V, Young M, Sternszus R, Aalamian A, Cruess R, Cruess S, Ruano-Cea E, Andonian S**. Developing a rubric to assess residents' workplace-based teaching as an entrustable professional activity. (Research for Assessment within Competency-based Education Grant, 2015-2016, \$17,150)
14. 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)
15. 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)
16. 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)
17. 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)
18. 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)
19. Kloda L, **Venturini A**. Effectiveness of teaching students in occupational and physical therapy PICO vs. an alternative framework for clinical question formulation. (Medical Library Association Lindberg Research Fellowship, 2014-2015, \$10,000)
20. 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)
21. **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, \$2.5 million)
22. **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)
23. **Lajoie S**, Poitras E, Naismith L. Using learning analytics to assess clinical reasoning in an online learning environment. (MedU, 2014-2016, \$25,000)



24. **Lajoie S.** Advanced technologies for learning in authentic settings facility. (Canadian Fund for Innovation-Leadership Opportunities Fund, 2012-2017, \$1,000,000)
25. **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)
26. **Lalla L, Rodriguez C, Boillat M,** Dove M, **Nugus P,** Willoughby K, **Steinert Y.** Assessing undergraduate medical education innovation: The first year of the McGill longitudinal family medicine experience. (Janus Research Grant, Research and Education Foundation of the College of Family Physicians of Canada, 2014 – 2015, \$10,000)
27. Lapalme-Remis S, Bourque P, **Chalk P,** Grimes D, **Macdonald ME,** MacLean H. The patient experience of lumbar puncture at a teaching hospital: A qualitative descriptive study. (Department of Medicine, University of Ottawa: Patient Quality and Improvement Grant, 2013 - 2015, \$9,723)
28. Lavoué E, **Lajoie S,** Molinari G, Tabard A. Supporting learners' regulation based on visualization of emotional information. (Coopera, 2015-2016, \$ 66,978)
29. **Lubarsky S, Nugus P.** Casting light on shadowing: Lessons and outcomes from interprofessional shadowing experiences in the undergraduate medical curriculum. (The Class of '77 Medical Education Innovation Grant, 2014-2015, \$4,000)
30. **Macdonald ME,** Beaudin A, Hovey R, Shah A, Wiseman M. Improving oral health care for the institutionalized elderly: Moving knowledge into action. (FRQS-RSBO, 2014-2015, \$20,000)
31. 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)
32. Morrison L, Christenson J, Stiell I, deCaen A, Kirkpatrick A, Travers A, **Bhanji F,** Atkinson P, Ramanathan K, Vaillancourt C, Wells G, Osmond M, Nascimento B, Scales D, Hutchinson J, Dainty K, Parker M, Dorian P, Verbeek R, Rizoli S, Cheskes S, Brooks S, Lin S. CanROC – Canadian Resuscitation Outcomes Consortium: Toward a national resuscitation clinical research network. (CIHR Operating Grant, 2015-2020, \$3,000,000)
33. 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)
34. Nakhla M, **Bell L.** Improving the transition from pediatric to adult care for emerging adults with diabetes. (Canadian Diabetes Association, 2014-2017, \$200,830)
35. **Noel G.** An Interprofessional Anatomy Refresher Program for Senior Undergraduate Students. Jonathan Campbell Meakins and Memorial Fellowship. (Royal Victoria Hospital Foundation, 2014-2015, \$5,000)
36. **Nugus P,** Denis J-L, McCusker J, **Steinert Y, Trottier C.** Translating knowledge to organizational change: Exploring the role of video ethnography to promote clinical learning and health system improvement. (Canadian Institutes of Health Research, 2014-2015, Planning Grant, \$21,777)



37. 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 , \$9235)
38. Patocka C, Sibbald M, **Bhanji F**. The impact of spaced instruction on Emergency Medical Services provider long-term retention of pediatric resuscitation performance. (Canadian Association of Emergency Physicians, 2015-2016 , \$3635)
39. **Razack S**. Discourse analysis of the admissions process to medicine. (Social Sciences and Humanities Research Council, 2015, \$129,000)
40. 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)
41. **Rodriguez C**, Bartlett-Esquilant 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)
42. **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)
43. **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)
44. **Rodriguez C**, Lebouché B. I-Score Study: The development and validation of a patient-reported measure of antiretroviral therapy's interference with life. (MITACS – Accelerate Internship Program, 2015, \$160,000)
45. **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)
46. **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)
47. **Rodriguez C**. Critical management studies in health care organizations. (FRSQ Chercheur-Boursier Senior Salary Award Grant, 2012-2016, \$353,876)
48. 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)
49. 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)
50. 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)



51. **Sternszus R, Bhanji F, Andonian S, Snell L.** From resident as teacher to resident as role model: Bringing resident teaching to the next level. (McGill Class of 77 Educational Innovation Fund, 2014-2015, \$4000)
52. 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)
53. 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)
54. **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 1. (Association of Canadian Occupational Therapy University Programs, 2014-2015, \$680)
55. **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, \$1180)
56. **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)
57. **Thomas A**, Kairy D, Ahmed S, Anaby D, Buissieres A, Rochette A, Shikako-Thomas K. Quebec knowledge translation in rehabilitation strategic initiative. A knowledge translation initiative. (Réseau Provincial de Recherche en Adaptation-FRSQ, 2014-2015, \$20,000)
58. **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)
59. **Thomas A**, Mylopoulos M, Rapolt S, Menon A, McCluskey A, Vacho B, Rochette A. Improving stroke rehabilitation services through evidence-based practice and knowledge translation: Attributes and determinants of expert stroke evidence-based rehabilitation practice. (Centre for Interdisciplinary Research in Rehabilitation (CRIR), 2014-2015), \$30,000)
60. 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)
61. White D, Bilodeau A, Bourque D, Denis JL, Firkbank O, Gilbert F, Touati N, **Rodriguez C**, et al. Réseaux hybrides d'intervention dans le domaine sociosanitaire. (FRQS Soutien aux équipes de recherche, 2014-2019, \$587,950)
62. 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)
63. Wideman T, Miler J, Bostick G, Bussièrès 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)



64. **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, 2015-2016, \$9,900)
65. **Young ME.** Ambiguous information in clinical reasoning: the influence of context and previous experience on interpretation of ambiguous clinical information. (Department of Medicine, McGill University, 2013 –2015, \$20,000)

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

1. Al Zhrani G, Alotaibi F, Azarnoush HM, Winkler-Schwartz A, Sabbagh A, **Lajoie SP**, Del Maestro RF. Proficiency performance benchmarks for removal of simulated brain tumors using 'NeuroTouch' a virtual reality simulator. *J Surg Educ.* 2015; 72(4).
2. **Bank I**, Cheng A, McLeod P, **Bhanji F**. Determining content for a simulation-based curriculum in pediatric emergency medicine: Results from a National Delphi Process. *Can J Emerg Med Care.* 2015;17(6):662-669.
3. Barrett A, Galvin R, **Steinert Y**, Scherpier A, O'Shaughnessy A, Horgan M, Horsley T. A BEME (Best Evidence in Medical Education) systematic review of the use of workplace-based assessment in identifying and remediating poor performance among postgraduate medical trainees. *Syst Rev.* 2015; 4:65.
4. Beyer-Berjot L, Patel V, Ziprin P, Taylor D, Berdah S, Darzi A, **Aggarwal R**. Enhanced recovery simulation in colorectal surgery: Design of virtual online patients. *Surg Endosc.* 2015; 29: 2270–2277.
5. **Bhanji F**, Donoghue AJ, Wolff MS, Flores GE, Halamek LP, Berman JM, Sinz EH, Cheng A. Part 14: Education: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation.* 2015; 132(18 Suppl 2):S561-73.
6. **Boudreau D**, Fuks A. The humanities in medical education: Ways of knowing, doing and being. *J Med Humanit.* 2015. 36:321-336.
7. Buchholz J, Vollmer CM, Miyasaka KW, Lamarra D, **Aggarwal R**. Design, development and implementation of a surgical simulation pathway curriculum for biliary disease. *Surg Endosc.* 2015; 29: 68–76.
8. Bussi eres EA, Zoubi F, Quon AJ, Ahmed A, **Thomas A**, Stuber K, Sajko S, French S. Fast tracking the design of theory-based KT interventions through a consensus process. *Implement Sci.* 2015;10:18.
9. Carnevale F, **Macdonald ME**, **Razack S**, **Steinert Y**. Promoting cultural awareness: A faculty development workshop on cultural competency. *Can J Nurs Res.* 2015; 47(2):18-40.
10. Cheng A, Brown LL, Duff JP, Davidson J, Overly F, Tofil NM, Peterson DT, White ML, **Bhanji F**, **Bank I**, **Gottesman R**, Adler M, Zhong J, Grant V, Grant DJ, Sudikoff SN, Marohn K, Charnovich A, Hunt EA, Kessler DO, Wong H, Robertson N, Lin Y, Doan Q, Duval-Arnould JM, Nadkarni VM. For the International Network for Simulation-Based Pediatric Innovation, Research, & Education (INSPIRE) CPR Investigators: Improving cardio-pulmonary resuscitation with a CPR feedback device and refresher simulations (CPR CARES Study): A Multicenter, Randomized Trial. *JAMA Pediatr.* 2015; 169(2):137-44.
11. Cheng A, Donoghue A, **Bhanji F**. Time to incorporate real-time CPR feedback and CPR debriefings into advanced life support courses. *Resuscitation.* 2015;90.
12. Cheng A, Hunt EA, Grant D, Lin Y, Duff JP, White ML, Peterson DT, Zong J, Grant V, **Gottesman R**, Sudikoff S, Doan Q, Nadkarni VM. Variability in quality of chest compressions provided during simulated cardiac arrest across nine pediatric institutions. *Resuscitation.* 2015;97:13-19.
13. Cheng A, Lockey A, **Bhanji F**, Lin Y, Hunt EA, Lang E. The use of high-fidelity manikins for advanced life support training – A systematic review and meta-analysis. *Resuscitation.* 2015;93:142-149.
14. Cheng A, Overly F, Kessler D, Nadkarni VM, Lin Y, Doan Q, Duff JP, Tofil NM, **Bhanji F**, Adler M, Charnovich A, Hunt EA, Brown LL. International network for simulation-based pediatric innovation, research, education (INSPIRE) CPR Investigators. Perception of CPR quality: Influence of CPR feedback, just-in-time CPR training and provider role. *Resuscitation.* 2015; 87:44-50



15. Côté V, Kus L, Zhang X, Richardson K, **Nguyen LHP**. Advanced airway management teaching in Otolaryngology residency: A survey of residents across Canada. *Ear Nose Throat J*. 2015;94(4-5):187-92.
16. **Cruess RL, Cruess SR, Boudreau JD, Snell L, Steinert Y**. A schematic representation of the professional identity formation and socialization of medical students and residents: A guide for medical educators. *Acad Med*. 2015; 90(6): 718-725.
17. Demers M, **Thomas A**, Wittich W, McKinley. Implementing a novel dance intervention in rehabilitation: Perceived barriers and facilitators. *Disabil Rehabil*. 2015; 37(12):1066-72.
18. Di Genova T, Valentino PL, Gosselin R, **Bhanji F**. The academic half-day redesigned: Improving generalism, promoting CanMEDS and developing self-directed learners. *Pediatr Child Health*. 2015; 20(1): 30-4.
19. Doleck T, Basnet RB, Poitras EG, **Lajoie SP**. Mining learner-system interaction data: Implications for modeling learner behaviors and improving overlay models. *J Comput Educ*. 2015; 2(4):421-447
20. **Dory V**, Audétat M-C, Rees C. Beliefs, identities and educational practice: A Q methodology study of general practice supervisors. *Educ Prim Care*. 2015;26(2):66-78.
21. Duffy MC, Azevko R, **Sun NZ**, Grisson SE, Stead V, Crelinston L, **Wiseman J**, Maniatis T, **Lachapelle K**. Team regulation in a simulated medical emergency: An in-depth analysis of cognitive, metacognitive and affective processes. *Instr Sci*. 2015;43 (3) 401-426.
22. Dumitra S, Wong SM, **Meterissian S**, Featherstone R, Barkun J, Fata P. The operative dictation: A review of how this skill is taught and assessed in surgical residency programs. *J Surg Educ*. 2015;72:321-9.
23. Durning SJ, **Lubarsky S**, Torre D, **Dory V**, Holmboe E. Considering "nonlinearity" across the continuum in medical education assessment: Supporting theory, practice, and future research directions. *J Contin Educ Health*. 2015;35(3):232-243.
24. Dyer J, Hudon A, Montpetit-Tourangeau K, **Charlin B**, Mamede S, van Gog T. Example-based learning: Comparing the effects of additionally providing three different integrative learning activities on physiotherapy intervention knowledge. *BMC Med Educ*. 2015;15:37.
25. Foster BJ, **Bell L**. Improving the transition to adult care for young people with chronic kidney disease. *Curr Pediatr Rep*. 2015; 3(1):62-70.
26. Garcia J, Coste A, Tavares W, Nuno N, **Lachapelle K**. Assessment of competency during orotracheal intubation in medical simulation. *BR J Anaesth*. 2015;115(2):302-7.
27. Gardner AK, **Lachapelle K**, Pozner CN, Sullivan MEE, Sutherland D, Scott DJ, Sillin L, Sachdeva AK. Expanding simulation-based education through institution-wide initiatives: A blueprint for success. *Surgery*. 2015;158 (5):1403-7.
28. Hogden A, Greenfield D, **Nugus P**, Kiernan M. Development of a model to guide decision making in amyotrophic lateral sclerosis multidisciplinary care. *Health Expect*. 2015;18(5): 1769-1782.4.
29. Irby DM, O'Sullivan PS, **Steinert Y**. Is it time to recognize excellence in faculty development programs? *Med Teach*. 2015;37(8):705-706.
30. Johnston MJ, Singh P, Pucher PH, Fitzgerald JEF, **Aggarwal R**, Arora S, Darzi A. Systematic review with meta-analysis of the impact of surgical fellowship training on patient outcomes. *Br J Surg* 2015; 102: 1156–1166.
31. Kairy D, Zidarov D, Bussi eres A, Poissant L, **Thomas A**. Can change agents improve best practice uptake in a rehabilitation setting? The clinician's perspective. *Arch Phys Med Rehabil*. 2015;96(10), e16.
32. Khandelwal A, **Nugus P**, Elkoushy MA, **Cruess RL, Cruess SR**, Smilovitch M, **Andonian S**. How we made professionalism relevant to twenty-first century residents. *Med Teach*. 2015;37(6):538-42.
33. **Lajoie SP**, Lee L, Bassiri M, **Cruz-Panesso I**, Kazemitabar M, Poitras E, Hmelo-Silver C, **Wiseman J**, Chan L, Lu J. The role of regulation in medical student learning in small groups: Regulating oneself and others' learning and emotions. In J rvel , S. & Hadwin, A. (Eds.) Special issue: Examining the emergence and



- outcomes of regulation in CSCL. *Comput Human Behav.* 2015;52:601-616.
34. **Lubarsky S, Dory V**, Audetat MC, Custers EJFM, **Charlin B**. Using script theory to cultivate illness script formation and diagnostic reasoning in health professions education. *Can Med Educ J.* 2015;6(2): e61-e70.
 35. **Macdonald ME**, Beaudin A, Pineda C. What do patients think about dental services in Quebec? An analysis of a dentist rating website. *J Can Den Assoc.* 2015;81:f3
 36. Madani A, Watanabe Y, Feldman LS, Vassiliou MC, Barkun JS, Fried GM, **Aggarwal R**. Expert intra-operative judgment and decision-making: Defining the cognitive competencies for safe laparoscopic cholecystectomy. *J Am Coll Surg.* 2015; 221: 931-940.
 37. McConnell MM, St-Onge C, **Young ME**. The benefits of testing for learning on later performance. **Adv Health Sci Educ Theory Pract.** 2015;20(2):305-320.
 38. McLeod P, **Steinert Y, Chalk C, Capek R**, Barnett B. Peer review of lectures: A durable impact? *Med Sci Educ.* 2015;25:105-106.
 39. McLeod PJ, **Steinert Y**. Twelve tips for curriculum renewal. *Med Teach.* 2015; 37(3):232-238.
 40. Minter RM, Amos KD, Bentz ML, Blair PG, Brandt C, D’Cunha J, Davis E, Delman KA, Deutsch ES, Divino C, Kingsley D, Klingensmith M, **Meterissian S**, Sachdeva AK, Terhune K, Termuhlen PM, Mullan PB. Transition to surgical residency: A multi-institutional study of perceived intern preparedness and the effect of a formal residency preparatory course in the fourth year of medical school. *Acad Med.* 2015;90: 1116-1124
 41. Miyasaka KW, Buchholz J, LaMarra D, Karakousis GC, **Aggarwal R**. Development and implementation of a clinical pathway approach to simulation-based training for foregut surgery. *J Surg Ed* 2015; 72: 672-635.
 42. Miyasaka KW, Martin ND, Pascual JL, Buchholz J, **Aggarwal R**. A simulation curriculum for management of trauma and surgical critical care patients. *J Surg Ed* 2015; 72: 803-810.
 43. Monteiro SD, Sherbino J, Ilgen J, Dore K, Wood T, **Young ME**, Bandiera G, Boulin D, Gaissmaier W, Norman G, Howey B. Disrupting diagnostic reasoning: do interruptions, instructions, and experience affect the diagnostic accuracy and response time of residents and emergency physicians? *Acad Med.* 2015;90(4):511-517.
 44. Neumar RW, Shuster M, Callaway CW, Gent LM, Atkins DL, **Bhanji F**, Brooks SC, de Caen AR, Donnino MW, Ferrer JM, Kleinman ME, Kronick SL, Lavonas EJ, Link MS, Mancini ME, Morrison LJ, O’Connor RE, Samson RA, Schexnayder SM, Singletary EM, Sinz EH, Travers AH, Wyckoff MH, Hazinski MF. Part 1: Executive Summary: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation.* 2015; 132(18 Suppl 2): S315-67.
 45. **Noel G**. Rapid prototyping: An educational extension of anatomy coloring textbooks. *Journal of Human Anatomy & Physiology.* 2015;1(5):1-2.
 46. Noureldin YA, Elkoushy MA, **Andonian S**. Assessment of percutaneous renal access skills during Urology Objective Structured Clinical Examinations (OSCE). *Can Urol Assoc J.* 2015;9(3-4):E104-8.
 47. Noureldin YA, Elkoushy MA, **Andonian S**. Predictors of Fluoroscopy Time during percutaneous nephrolithotomy: Impact of postgraduate urology trainees and S.T.O.N.E. Nephrolithometry Score. *J Endourol.* 2015;29(5):542-7.
 48. Olasky, J, Sankaranarayanan G, Seymour NE, Magee JH, Enquobahrie A, Lin MC, **Aggarwal R**, Brunt LM, Schwaitzberg SD, Cao CGL, De S, Jones DB. Identifying opportunities for virtual reality simulation in surgical education: A review of the proceedings from the innovation, design, and emerging alliances in surgery (IDEAS) conference: VR Surgery. *Surg Innov.* 2015;22(5): 514-21.
 49. Patocka C, Khan F, Dubrovsky AS, Brody D, **Bank I, Bhanji F**. Pediatric resuscitation training-Instruction all at once or spaced over time? *Resuscitation.* 2015; 88:6-11.



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51. Pellegrini VD, Ferguson PC, **Cruess RL, Cruess SR**, Briggs TWR. Sufficient competence to enter the unsupervised practice of orthopedics: what is it, when does it occur, and do we know it when we see it? *J Bone & Jt Surg*. 2015; 97: 1459-1464
52. Pucher P, **Aggarwal R**, Singh P, Tahir M, Darzi A. Identifying quality markers and improvement measures for ward-based surgical care: a semi-structured interview study. *Am J Surg*. 2015; 210: 211-218.
53. Pucher PH, **Aggarwal R**, Almond MH, Darzi A. Surgical care checklists to optimise patient care following postoperative complications. *Am J Surg*. 2015; 210(3): 517-25.
54. Pucher PH, Johnston MJ, **Aggarwal R**, Arora S, Darzi A. Effectiveness of interventions to improve surgical handover: A systematic review. *Surgery* 2015; 158(1): 85-95.
55. **Razack S**, Hodges B, **Steinert Y**, Maguire M. Seeking inclusion in an exclusive process: Discourses of student selection for medical school. *Med Educ*. 2015; 49:36-47.
56. **Rodriguez C**, Bartlett-Esquillant G, **Boillat M**, Dove R, Grad R, **Lalla L**, Pluye P, **Tellier PP**, Bergman H. Manifesto for family medicine educational research. *Can Fam Physician*. 2015; 61: 745-747.
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59. Sater L, Schwartz J, Coupland S, **Young ME**, **Nguyen LHP**. Nationwide study of publication misrepresentation in applicants to residency. *Med Educ*. 2015;49(6): 601-611.
60. Shevell A, **Thomas A**, Fuks A. Teaching professionalism to first-year medical students using video clips. *Med Teach*. 2015;37(10):935-42.
61. Short A, Phillips R, **Nugus P**, Dugdale P, Greenfield D. Developing an inter-organizational community based health network. *Health Promot Int*. 2015;30(4):868-880.
62. Singh P, **Aggarwal R**, Pucher PH, Darzi A. Development, organisation and implementation of a surgical skills 'Boot Camp' – SIMweek. *World J Surg*. 2015; 39: 1649–1660.
63. Singh P, **Aggarwal R**, Pucher PH, Hashimoto DA, Beyer-Berjot L, Bharathan R, Middleton KE, Jones J, Darzi A. An immersive "Simulation Week" enhances clinical performance of incoming surgical interns. *Surgery*. 2015; 157(3): 432-43.
64. Singh P, **Aggarwal R**, Tahir M, Pucher PH Darzi A. A randomized controlled study to evaluate the role of video-based coaching in training laparoscopic skills. *Ann Surg* 2015; 261: 862–869.
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66. **Steinert Y**, **Macdonald ME**. Why physicians teach: Giving back by paying it forward. *Med Educ*. 2015;49(8):773-782.
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***Monographs, Books and Book Chapters***

1. **Aggarwal R**, Pucher P. Statistical Analysis. In: **Aggarwal R**, Korndorffer J, Cannon-Bowers J, Eds. ACS Principles and Practice for Simulation and Surgical Education Research. 1st ed. Chicago, IL: American College of Surgeons; 2015:34-41.
2. Pucher P, **Aggarwal R**. Development of Assessment Tools. In: Aggarwal R, Korndorffer J, Cannon-Bowers J, Eds. ACS Principles and Practice for Simulation and Surgical Education Research. 1st ed. Chicago, IL: American College of Surgeons; 2015:126-137.
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5. **Lajoie SP**, Poitras E. Problem/task centered approaches. In: Spector M, Ed. Encyclopedia of Educational Technology. Thousand Oaks: Sage; 2015:588-591.
6. **Lajoie SP**, Poitras EG, Doleck T, Jarrell A. Modeling Metacognitive Activities in Medical Problem-Solving with BioWorld. In: Peña-Ayala A, Ed. Metacognition: Fundaments, Applications, and Trends. Springer Series: Intelligent Systems Reference Library; 2015:323-343.
7. **Nugus P**, Garfinkel H. Lessons on emergent behaviors in complex organizations. In: Collyer F, Ed. The Palgrave Handbook of Social Theory in Health Care. London, UK: Palgrave; 2015:251-261.
8. **Torabi N**. Plan key messages for different audience. In: Meaningful metrics: a 21st century librarian's guide to bibliometrics, altmetrics, and research impact. Roemer RC, Borchardt R, Eds. Chicago, IL: ACRL; 2015: 21-22.

**APPENDIX III – VISITORS TO THE CENTRE**

Guests	Topic
Kevin Eva University of British Columbia	Using Improvisational Theatre to Improve the Effectiveness of Feedback: Why Facilitating Performance Improvement Requires Going Off Script
Steven Durning Uniformed Services University of the Health Sciences	Using Brain Imaging to Explore Clinical Reasoning

Visitors	Institution
Christine Bennett	The University of Notre Dame, Australia
Ching-Chih Chang	Taipei Veterans General Hospital, Taiwan
James Stoller	Education Institute, Cleveland Clinic
Julie Gustavs	The Royal Australasian College of Physicians
Senji Kasahara, Arai Masazumi, Rie Yamada, Naoki Katsumura, Takashi Shiroko, Mikito Yamada, Taku Fukao, Yuichiro Hatano, Norio Kawamoto, Noriyuki Nakayam, Yoshihiro Tanaka, Yasuyuki Suzuki, Takuya Saiki, Rintaro Imafuku	Gifu University, Japan
Lidewij Vat	Vilans Centre of Expertise for Long-Term Care, Netherlands

Visiting Scholars	Institution
Renato Antunes	Universidade de São Paulo
Michael Saraga	Lausanne University Hospital

**APPENDIX IV – HONOURS, AWARDS & RECOGNITION****Bank, Ilana (with Elaine Khalil, Peter Nugus and Meredith Young)**

- Recipients of the Class of '77 MedEd Innovation Grants Program

Boillat, Miriam (with Michelle Elizov and Annie Chevrier)

- Recipients of the Class of '77 MedEd Innovation Grants Program

Cummings, Beth-Ann

- Selected as the 2015 recipient of the W. Dale Dauphinee Fellowship by the Medical Council of Canada

Doucette, Elaine

- Named to the 2015-2016 Faculty Honour List for Educational Excellence in the Faculty of Medicine

Gottesman, Ronald

- Received the Paediatric Academic Leadership Clinician Educator Award from the Paediatric Chairs of Canada

Lajoie, Susanne

- Received the Prix Thérèse Gouin-Décarie (Social Sciences) of the Association francophone pour le savoir (ACFAS)

Lubarsky, Stuart

- Named the 2015-2016 Richard and Sylvia Cruess Faculty Scholar in Medical Education
- Co-recipient of the Transition to Clinical Practice (TCP) Neurology Teaching Award

Macdonald, Mary Ellen

- Granted Tenure and promoted to the rank of Associate Professor in the Faculty of Dentistry

Moore, Fraser

- Co-recipient of the 2015 Transition to Clinical Practice (TCP) Neurology Teaching Award

Nguyen, Lily

- Named to the 2015-2016 Faculty Honour List for Educational Excellence in the Faculty of Medicine

Noel, Geoffroy

- 2015-2016 Ministry of Health and Social Services (MSSS) Financial program award for medical teaching



Nugus, Peter and Rodriguez, Charo

- Successful in bidding McGill University and Montreal to host the 2018 International Conference on Organizational Behaviour in Health Care. The theme of the conference is Coordinating Care Across Boundaries and Borders: Systems, Networks and Collaborations.

Rodriguez, Charo

- Named to the 2015-2016 Faculty Honour List for Educational Excellence in the Faculty of Medicine.

Snell, Linda

- Awarded the title of Mastership in the American College of Physicians

Steinert, Yvonne

- Re-appointed to the position of Director, Centre for Medical Education

Trottier, Claire

- Named an Education Specialist in the Department of Microbiology and Immunology.
- Selected as the only Canadian participant in the 2015 Biology Scholars Residency Program, organized by the American Society for Microbiology.

Young, Meredith

- Received the Inaugural Early Career Medical Educators (ECME) Champion Award at the 2015 Canadian Conference on Medical Education

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

Core Faculty	
Name	Department
Donald Boudreau	Internal Medicine
Colin Chalk	Neurology and Neurosurgery
Richard Cruess	Centre for Medical Education
Sylvia Cruess	Centre for Medical Education
Beth-Ann Cummings	Internal Medicine
Valérie Dory	Assessment and Evaluation, UGME
Carlos Gomez-Garibello	Assessment and Evaluation, PGME
Stuart Lubarsky	Neurology and Neurosurgery
Mary Ellen Macdonald	Oncology and Nursing
Sarkis Meterissian	Surgery and Oncology
David Ragsdale	Neurology and Neurosurgery
Saleem Razack	Pediatrics
Linda Snell	Internal Medicine
Yvonne Steinert	Family Medicine
Robert Sternszus	Pediatrics
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
Mylène Dandavino	Pediatrics
Elaine Doucette	Nursing
Michelle Elizov	Internal Medicine
Ron Gottesman	Pediatric Critical Care Medicine
Terry Hebert	Pharmacology and Therapeutics
Kevin Lachapelle	Surgery
Susanne Lajoie	Educational and Counselling Psychology
Leonora Lalla	Family Medicine
Markus Martin	Obstetrics and Gynecology
Fraser Moore	Neurology and Neurosurgery
Lily Ha-Nam Nguyen	Otolaryngology
Geoffroy Noel	Anatomy and Cell Biology
Joyce Pickering	Medicine
Charo Rodriguez	Family Medicine
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
Adrianna Venturini	Physical and Occupational Therapy
Kevin Waschke	Gastroenterology



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	Associate Dean, Postgraduate Medical Education and Professional Affairs, Faculty of Medicine, McGill
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

Postgraduate Fellows		
Name	Supervisors	Project
Tudor Botnaru	Michelle Elizov Peter Nugus Beth-Ann Cummings	What are Residents' Perceptions of the Sharing of Clinical Performance Assessments?
Martin Kuuskne	Farhan Bhanji	Curriculum Mapping for the Instructional Method of Emergency Medicine Simulation Training: A Resident Learner's Perspective



Postgraduate Fellows		
Name	Supervisors	Project
Sonia Skamene (PGY-4) Radiation Oncology, McGill <i>Period 8: Jan 12-Feb 08</i>	Joanne Alfieri	The Creation of an Introductory Pocketbook for Medical Students and Residents on the Basics of Radiation Oncology
Geovanne Mauro Resident Radiation Oncology, University of São Paulo <i>Period 9: Feb 1-Feb 28</i>	Geoffroy Noel	The Use of Diagnostic Images as a Way of Making a Principle-Based but Also Problem-Direct Learning on Gross Anatomy: A Qualitative Analyses
David Rothstein Medical Student (Y-4), McGill <i>Period 10: Mar 9-Apr 5</i>	Jeffrey Wiseman	Are Students Ready for the One Minute Preceptor?
Andrew Mutter Medical Student (Y-4) McGill <i>Period 4: Sep 21-Oct 18</i>	Michelle Elizov Miriam Boillat	Starting the Teaching Journey

Masters Students	
Name	Discipline
Aisha Al Khamisi	Emergency Medicine
Alina Levtova	Medical Genetics
Kuochen Liao	Geriatrics
Nisreen Maghraby	Emergency Medicine
Fareeda Hani Mukhtar	Radiology
Diana Maria Ramos	Educational Psychology
Christina Summerside	Nursing
Fadi Toonsi	Diagnostic Radiology
Shizuma Tsuchiya	Palliative Care