Cumming School of Medicine Office of Health and Medical Education Scholarship

OHMES Update #8 June 2018

From the Editor

As spring fades into summer another academic year draws to a close and we look back on what we have done this year and what we will do in the year to come. We celebrate Jocelyn Lockyer's many contributions to medical education scholarship as she moves to an emerita role with the university - see the following article in this newsletter. We are also sorry to say farewell to Moné Palacios MacKay as she takes up a leadership position in Chile. In terms of future directions, our strategic planning meetings in May were productive and we are now drawing together an OHMES Strategic Plan based on advancing education scholarship in the Cumming School of Medicine for the next 5 years. Part of this will be a focus on competency-based medical education in the funding call and 2019 symposium. Watch this space. For now, let me wish you a relaxing, productive, and stimulating summer.

Rachel Ellaway, June 2018



In our Community



After a distinguished and very productive career in medical education, Dr. Jocelyn Lockyer will retire at the end of June 2018. Dr. Lockyer began her career in administration at St. Joseph's Hospital in Hamilton Ontario, became Director of CME & PD at the University of Calgary from 1998-2006, Associate Dean CME & PD from 2006-2012, and Senior Associate Dean Education 2012-2017. She completed a Masters of Health Administration at the University of Ottawa in 1975 and a PhD in Education at the University of Calgary in 2002 and became an Associate Professor in 2003 and then Professor in 2008 in the Department of Community Health Sciences. During her tenure as Senior Associate Dean Education, Dr. Lockyer was the driving force behind the creation of OHMES.

In addition to her senior leadership roles, Dr. Lockyer has published over 180 articles in peer reviewed journals, many of them focused on feedback to physicians from multi-disciplinary team members and learning outcomes from multi-disciplinary courses. Throughout her career at the University of Calgary, she continued to teach in the Medical Education Specialization in Community Health Sciences and supervised over 30 graduate students. She has also had a strong national presence, chairing numerous committees and leading national research projects.

OHMES would like to thank Dr. Lockyer for her leadership and contributions to medical education. Her work will have a lasting impact on medical education at the University of Calgary and beyond. We look forward to her continuing presence at the University of Calgary as Professor Emeritus, and her ongoing research which will continue to benefit medical education for years to come.

> OHMES better teachers, better learners, better doctors



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OHMES Update

Featured scholar: Dr. Catherine Patocka

OHMES is pleased to feature Dr. Catherine Patocka, who was one of the first OHMES grant recipients in 2014. Dr. Patocka became interested in medical education during her residency training in emergency medicine when she struggled to learn and apply knowledge within the clinical environment and wanted to improve her understanding of how we learn. She subsequently completed a oneyear postgraduate diploma in health professions education at the McGill Centre for Medical Education which exposed her to adult educational theory, and foundational concepts in medical education and research. At the same time, her regular involvement with a volunteer first response service in a small Montreal community sparked her interest in resuscitation education and led to her involvement in a research project looking at the use of spaced education in resuscitation education. After residency, Catherine joined the Department of Emergency Medicine at the Cumming School of Medicine and in 2016 completed a Master's in Health Professions Education (MHPE) through Maastricht University in the Netherlands. Her Master's thesis project "The Impact of spaced instruction on Emergency Medical Services (EMS) provider long-term retention of pediatric resuscitation: A randomized educational trial" received both an OHMES grant as well as a Canadian Association of Emergency Physicians National Research Grant.



The purpose of this study was to explore the role of spaced instructional design in the long-term retention of resuscitation skills. This randomized educational trial compared traditional massed delivery of a standardized pediatric resuscitation course (delivered over 2 sequential days) to the identical course delivered in a spaced format (four 3.5-hour weekly sessions). Outcomes included performance in a simulated resuscitation scenario, individual skill retention, knowledge and self-efficacy. There were 4 main findings of the study. Most importantly the data suggested that participants in the spaced group had improved long-term (3-month) retention of resuscitation performance as measured by the clinical performance tool (CPT). Secondly, participants in the spaced group had improved long-term retention of several procedural skills: bag-valve mask ventilation and intraosseous insertion and intubation but not infant chest compressions or adult chest compressions. Also, decay in knowledge over 3 months as measured by a standardized multiple-choice questionnaire appeared to be slightly less in the spaced group. Finally, for the most part self-efficacy of participants appeared to parallel performance scores suggesting that self-efficacy may be a useful predictor of the application of learning in this context. The study adds to a growing body of evidence in favor of spaced instruction and should be carefully considered by resuscitation guidelines committees in their recommendations.

Since completing her Masters, Catherine has explored qualitative methodology, and taken on a number of educational leadership roles: she is the Competence by Design (CBD) lead for the University of Calgary Royal College Emergency Medicine program and recently joined the Alberta Health Services Clinical Knowledge and Content Management (CKCM) team tasked with developing evidence-based clinical content to inform point-of-care resources for emergency physicians across Alberta. At home, she has two young children and is expecting her third in June 2018. She could not take on any of these tasks without the incredible support of her husband Stephane, a family physician. Having had a busy first 5 years in practice, she is excited to see what new challenges and opportunities the future holds.



ATSSL Granted Simulation Program Accreditation by RCPSC

The Advanced Technical Skills Simulation Laboratory (ATSSL) is proud to have recently received Royal College of Physicians of Canada – Simulation Program Accreditation. ATSSL opened in 2014 and has served over 20,000 learning encounters during the 2016-17 academic year. The ATSSL is a currently a partnership between AHS eSIM Provincial Simulation Program and the Cumming School of Medicine (CSM), UCalgary. Both organizations are committed to providing an innovative interdisciplinary learning environment to produce more effective, confident and safe medical and surgical professionals, and improve patient safety and quality of care.



The ATSSL offers a full complement of simulation modalities from human and animal cadaveric tissue procedural skills to theater-based simulation. ATSSL's simulation-based medical education (SBME) focuses on skills and knowledge acquisition, interprofessional education (IPE) and teamwork, and a better understanding of latent patient safety threats in our environment. ATSSL purposefully works with our patient safety and quality improvement partners in the CSM and AHS to develop longitudinal curricula and address identified training priorities in a way that optimizes the potential transfer of learning for medical students, postgraduate residents and fellows, practicing physicians, as well as nurses and allied health professionals. A

team approach to learning outcomes and curriculum assessment has facilitated the development of curricula to align with The Association of Faculties of Medicine of Canada Entrustable Professional Activities as the foundation to ensure patient safety during learning transitions. A focus on safety competencies, including the review of new surgical procedures and the use of simulated cadaveric tissues has further allowed programs to improve team communication, manage equipment changes and surgical flow, and determine administrative challenges.

ATSSL strives to adhere to best practices through engagement in research and development in the field of simulation. Many of the ATSSL research initiatives are from within the lab, generated from the simulation consultants or the medical director. Moving towards competency-based medical education (CBME), ATSSL supports generating more objectively based measures and relies on OHMES for their continued support in research design, methodology and funding. By allowing the study, analysis and review/debrief of active learning of skills, teamwork or cognitive load training, we work with educators to develop needs assessments, goals and objectives, design scenarios, and discuss/build evaluation and assessment practices, both formative and summative. We currently have processes in place to facilitate simulation instructor training and to perform regular peer assessments and feedback on the performance. Over the past couple of years, there has been notable increase in research and scholarly activities. Particularly evident in the areas of team-based learning, with some interesting approaches to activity metrics, which afford the assessment of team member contributions. The process of revealing and discussing research needs involves open conversation with multiple stakeholders to identify sources of information, development of faculty, simulation scenarios and structured debrief, and curriculum alignment, assessment and program evaluation. OHMES' weekly Med Ed Specialization Journal Club topics, has provided ATSSL with an opportunity for regular mentoring, support and collaborations from our University community in a number of these aspects.

OHMES congratulates ATSSL on their well-deserved accreditation status, and looks forward to continuing and future partnerships with the lab!





Graduate Study in Medical Education

We would like to congratulate the following students in the Community of Health Sciences Graduate Medical Education Specialization:

Anne Roggensack MSc – supervisors: Drs. Lockyer and Oddone Paolucci - Conferred February 2018

Sarah Anderson PhD – supervisors: Drs. Hecker and Jamniczky - Convocated June 2018

Janice Austin MSc - supervisor: Dr. Oddone Paolucci - Convocated June 2018

Nouf Al Harbi PhD – supervisors: Drs. Beran and Oddone Paolucci - Defended April 2018

Seraj Makkawi MSc - supervisor: Dr. Cooke - Defended April 2018

Abdulaziz Alhassan PhD – supervisors: Drs. Beran and Oddone Paolucci - Defended May 2018

OHMES Strategic Planning



The Office of Health & Medical Education Scholarship was created in 2013 to be a catalyst and enabler for educational scholarship in the Cumming School of Medicine. In May 2018, OHMES hosted two retreats to seek ideas and feedback for the community on future strategic directions. Twenty-seven people from the OHMES community at large attended the May 10 retreat to share their thoughts on our current services and activities, and to provide ideas on areas and relationships to pursue in the future. In addition, 12 senior leaders (Department Heads, Associate Deans, etc.) from the CSM, Veterinary Medicine, and Nursing, attended the May 24 retreat to discuss the state of and need for education scholarship in the CSM and beyond, how OHMES can build capacity, and the resources required to do this.

Based on this feedback, OHMES will be creating a five year strategic plan that will be shared with the community. We appreciate the input, guidance and support of our community in this endeavour, and look forward to working with our members to create a vision for the future. If you have not had an opportunity to contribute your ideas, please contact us at <u>ohmes@ucalgary.ca</u>.



Health & Medical Education Scholarship Funding Competition 2018-2019

The call for Letters of Intent (LOI) for the Health Science and Medical Education Research and Innovation Funding Competition 2018-19 is now open. This competition provides funding awards up to \$10,000 each for CSM faculty investigators pursuing a research or innovation project driven by education scholarship. This year we have a particular focus on projects exploring topics in Competency-Based Medical Education (CBME).

The LOI due date is **28 September 2018**. Please visit the <u>OHMES website</u> for further details.



2017-18 University of Calgary Teaching & Learning Grant Recipients

OHMES would like to congratulate CSM recipients of the 2017-18 University of Calgary Teaching and Learning Grants:

Investigators: Patty Dyjur, Fabiola Aparicio-Ting Project title: Impact of curriculum mapping on instructors and students in an undergraduate health science program

Investigators: Gregg Nelson, Lana Saciragic, Vanessa DiPalma Project title: *The 5-minute surgeon*. *How Ob/Gyn residents learn from videos*

Investigators: Juan Antonio Garcia-Rodriguez, Maria Palacios Mackay Project title: Using an Innovative, Structured Core Procedural Skills Learning Program to Fill Procedural Skills Learning Gaps in Family Medicine Residency Training



Selected recent publications from OHMES members

- Grant VJ, Robinson T, Catena H, Eppich W, Cheng A. <u>Difficult debriefing situations: A toolbox for simulation</u> <u>educators</u>. Med Teach. 2018 May 23: 1-10. doi: 10.1038/s41366-018-0110-5.
- Kelly M, Nixon L, Broadfoot K, Hofmeister M, Dornan T. <u>Drama to promote non-verbal communication skills</u>. Clin Teach. 2018 May 23. doi: 10.1111/tct.12791.
- Cheng A, Calhoun A, Topps D, Adler MD, Ellaway R. <u>Using the METRICS model for defining routes to scholarship</u> <u>in healthcare simulation</u>. Med Teach. 2018 May 2:1-9. doi: 10.1080/0142159X.2018.1465184.
- Schoenherr JR, Waechter J, Millington SJ. <u>Subjective awareness of ultrasound expertise development: individual experience as a determinant of overconfidence</u>. Adv Health Sci Educ Theory Pract. 2018 Apr 24. doi: 10.1007/s10459-018-9826-1.



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- Fraser K, McLaughlin K. <u>Temporal pattern of emotions and cognitive load during simulation training and debriefing</u>. Med Teach. 2018 Apr 24:1-6. doi: 10.1080/0142159X.2018.1459531.
- Zaver F, Battaglioli N, Denq W, Messman A, Chung A, Lin M, Liu EL. <u>Identifying Gaps and Launching Resident</u> <u>Wellness Initiatives: The 2017 Resident Wellness Consensus Summit</u>. West J Emerg Med. 2018 Mar;19(2):342-345. doi: 10.5811/westjem.2017.11.36240. Epub 2018 Feb 19.
- Edgerley S, McKaigney C, Boyne D, Ginsberg D, Dagnone JD, Hall AK. <u>Impact of night shifts on emergency</u> <u>medicine resident resuscitation performance</u>. Resuscitation. 2018 Mar 12;127:26-30. doi: 10.1016/j.resuscitation.2018.03.019. [Epub ahead of print]
- Wycliffe-Jones K, Hecker KG, Schipper S, Topps M, Robinson J, Abedin T. <u>Selection for family residency training</u> <u>in Canada: How consistently are the same students ranked by different programs?</u> Can Fam Physician. 2018 Feb;64(2):129-134.
- Bannister SL, Dolson MS, Lingard L, Keegan DA. <u>Not just trust: factors influencing learners' attempts to perform</u> <u>technical skills on real patients</u>. Med Educ. 2018 Feb 15. doi: 10.1111/medu.13522. [Epub ahead of print]
- Roze des Ordons AL, Cheng A, Gaudet JE, Downar J, Lockyer JM, CSM Feedback and Debriefing Investigators. <u>Exploring Faculty Approaches to Feedback in the Simulated Setting: Are They Evidence Informed?</u> Simul Healthc. 2018 Jan 29. doi: 10.1097/SIH.0000000000289.
- Thoma B, Brazil V, Spurr J, Palaganas J, Eppich W, Grant V, Cheng A. <u>Establishing a Virtual Community of Practice in Simulation: The Value of Social Media</u>. Simul Healthc. 2018 Apr;13(2):124-130. doi: 10.1097/SIH.0000000000284.

OHMES wants to profile and promote the educational scholarship of OHMES members. Please contact <u>ohmes@ucalgary.ca</u> to tell us about your publications and other activities so we can profile them in future editions of OHMES Update.



Local Events

• Med Ed Seminar – Dr. Olav Krigolson



The Health Education Neuroassessment Lab (THENAL) and OHMES are pleased to welcome back Dr. Olav Krigolson from the University of Victoria, for a seminar entitled *Using neuroscience to improve learning in a healthcare context*. In spite of recent advances in neuroscience that shed light on our understanding of how we learn, a lot of educational practice is still grounded in opinion and tradition. In this talk, Dr. Krigolson will provide an overview of research from his laboratory that uses neuroimaging and computational modelling to provide insight into how we can improve our teaching practice and how we can even potentially monitor student learning. Dr. Krigolson will also discuss recent work that uses the principles of game theory to improve the educational experience of his students.

The seminar will be held on Friday, June 15, 2018 from 12:00-1:00pm in G500 HSC. Please RSVP to <u>ohmes@ucalgary.ca</u>

Health & Medical Education Scholarship Symposium 2019

The 5th annual OHMES Symposium will be held **Wednesday**, **February 20 and Thursday**, **February 21**, **2019**. Further details will follow soon.



Medical Education Specialization Journal Club

Mondays from September 2018 through May 2019, 12:00-1:00pm, Rose Room, 3rd floor, TRW

OHMES and Department of Community Health Sciences host a weekly medical education journal club on Mondays from September through May. Anyone with an interest in medical education is welcome, and attendance can be in-person, via teleconference or Adobe Connect. Article topics vary, and special guests are occasionally invited to present their article. Information on weekly articles and archived sessions can be accessed on the website.

Other Events

- <u>AMEE Conference</u> 25-29 August 2018, Basel, Switzerland
- International Conference on Residency Education
 18-20 October 2018, Halifax, Nova Scotia
- <u>Royal College Simulation Summit</u> 28-29 September 2018, Ottawa
- <u>AAMC Learn Serve Lead 2018</u> 2-6 November 2018, Austin, Texas
- IMSH 2019 26-30 January 2019, San Antonio, Texas
- <u>CCME 2019</u>
 13-16 April 2019, Niagara Falls, Ontario
 Abstract deadline: 14 September 2018

Local Funding Opportunities

- <u>OHMES Medical Education Travel Fund</u> Awards up to \$2,000
- <u>Health Science & Medical Education Research & Innovation Funding Competition 2018-19</u> Awards up to \$10,000
 LOI Deadline: 28 September 2018

Other Funding Opportunities

- <u>Stemmler Medical Education Research Fund National Board of Medical Examiners</u> Award maximum \$50,000 – Deadline 1 July 2018
- <u>Medical Council of Canada Research in Clinical Assessment</u> Award maximum \$37,500 - Deadline: 1 February 2019
- <u>Spencer Foundation Small Research Grants</u> Award maximum: \$50,000 - Deadlines:1 August, 1 November 2018, and 1 February and 1 May 2019
- <u>Arnold P. Gold Foundation</u>
 Chapter Grants up to \$1500, intake ongoing
 Supports educational projects that increase humanism in medical education learning environments.



• Josiah Macy Jr. Foundation

Board Grants – intake ongoing, President Grants – up to \$35,000, intake ongoing Projects related to IPE and teamwork, new curriculum content, new models for clinical education, career development in HPE, education for the care of underserved populations.

Max Bell Foundation

Project Grants – up to \$200,000, intake ongoing Funding for projects that impact public policies and practices with an emphasis on health and wellness, and education.



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