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## Research Update

Welcome to the second annual Department of Medical Education Research Newsletter. Since August 2016, there have been a number of governance, resource, and activity developments in the research portfolio, including establishing a Research and Research Training Committee, and holding a research forum.

The committee's activities focus on developing and enhancing the research performance and capability of the DME, including outreach to DME clinical sites, and communicating about research activities within the Department and School.

In October 2016, the research forum, *Research Matters in the DME: Enhancing Engagement, Quality, and Impact*, provided an opportunity to engage the broader DME with research in the Department, and to identify research goals and strategies for 2017-2019. The forum was attended by approximately 40 staff with input from researchers and the DME guest, Dr Joanna Bates, from the Center for Health Education Scholarship (CHES), University of British Columbia.

New appointments have contributed to research gaining momentum in the Department: much needed administrative support has been possible with the appointment of Michelle Grainger. A small but dedicated team of research assistants have been appointed to work on funded projects.

In January 2017, we welcomed Professor Elizabeth (Liz) Molloy, who has been appointed as Professor of Work Integrated Learning. Liz has been visiting the clinical sites, and will present about her portfolio in the research roundtable series in October.

This year, we've hosted several international visitors, including medical education luminaries DME Honorary Professor David Swanson (American Board of Medical Specialities), and Professor Kevin Eva (University of British Columbia). Both gave generously of their expertise in discussions with staff and students.

As I prepare this newsletter, the department is relatively quiet as the majority of research active staff have escaped freezing Melbourne to the northern hemisphere to attend the annual AMEE conference in Helsinki. Last month a large contingent of DME researchers also attended the ANZAHPE conference in Adelaide.

New research opportunities have eventuated with success in the university's teaching and learning grant scheme for several DME academics, including colleagues at the Western Clinical School.

Dr Anna Ryan and the assessment team have been awarded funding from the

Stemmler Medical Education Research Fund for a multi-institutional research project involving collaboration with the University of Toronto in Canada. The project, Timing and content of feedback for test-enhanced transfer of learning through multiple-choice questions, will explore the impact of different forms of post-test feedback on transfer of medical knowledge within a test-enhanced learning framework.

Professor Liz Molloy leads a team to conduct a pilot project at Western Health investigating the benefits to health services of medical student clinical placements. The project, Medical Student Clinical Placements as Sites of Learning and Teaching, is funded by the Medical Deans of Australia and New Zealand.

To learn about progress and findings of these projects, we hope to see you either in person or via Zoom at the DME weekly research roundtables. These are held in the DME library, N714, Medical Building, Parkville, all welcome. Please

email Michelle Grainger if you aren't already on the circulation list.  
michelle.grainger@unimelb.edu.au

**Robyn Woodward-Kron, PhD**  
Research Lead, DME



*Professor Kevin Eva*



*Dr Sandra Petty*

## In the spotlight: Academic researchers

### **Dr Sandra Petty, Senior Lecturer in Medical Education**

I am an academic and clinical neurologist as well as a medical educator. I run Transition to Practice for MD4 students. I am also CEO of the Center for Biomedical Research Transparency based in New York. Clinically, I work at St Vincent's Hospital, subspecialising in epilepsy and its comorbidities.

My PhD focussed on bone health in epilepsy, and I also have clinical and research experience in bone health. For my postdoc, I looked at activity of some of the anti-epileptic medications on voltage-gated sodium channels in mouse osteoblasts using patch clamping.

I have previously worked in various medical education roles including at Western Clinical School, St Vincent's Clinical School and at Ormond College, before moving to Parkville in 2015 to run Transition to Practice. I am also an original co-author of the Ormond Hospital Experience which is run for MD1 students during O-Week, and now chair this committee.

In terms of my current research interests, I have ongoing honorary collaborations in research in Neurology, including bone health, falls and balance work with the Royal Children's Hospital and Royal Melbourne Hospital, and also in Vitamin D, Falls and Balance in stroke with NARI and St Vincent's Hospital. I am currently working on research proposals to study the effectiveness of the Ormond Hospital Experience.

Personally, developing research into the Ormond Hospital Experience is my current research goal, so that we can further develop and publish on this innovative experience. Over time, I will also be developing research opportunities for the MD Foundation Program in Medical Leadership and for the MD Quiz App which I have recently implemented for MD4 students, as well as highlighting the process of developing cognisance and situational awareness in medical students.

## Research Higher Degree and Research Training Update

The DME has seen strong growth in the number of students enrolled in RHD programs, with 10 PhD and 2 MPhil students currently enrolled directly within the DME.

Their research projects draw from different health disciplines, work contexts and research methodologies encompassing factors which impact on student learning in medical training, motivations to learn, clinical reasoning and healthcare communication.

The health settings and professional disciplines include medicine, physiotherapy, dentistry, nursing and audiology. Although diverse in scope, these research areas share some common ideas: to better understand the delivery of health professional education; and to empirically examine

how educational or clinical practice theory can be translated into teaching and clinical practice contexts.

The breadth of research topics and health disciplines completing their RHD in the DME strengthens the reach and relevance of research in the Department.

Research activity is also thriving in the DME EXCITE Master's Program. In 2017, there was a record number of enrolments, from 7 in 2016 to 23 in 2017. This trend looks set to continue in 2018. The EXCITE Masters' research outputs comprise a 10,000 word thesis based on a small research project, systematic literature review or quality assurance task. The research projects are smaller in scale compared to an MPhil or PhD; yet, they are increasingly

contributing a valuable dimension of research to the DME.

All of the Masters' students are clinicians and all have a passionate interest in teaching, and in advancing and translating teaching scholarship to clinical workplace contexts - the projects are targeted and applied to clinical education workplaces.

The 2017 EXCITE cohort will present their research at a showcase event on October 26 from 4-7pm at the Medical School. Registration is free and you can book here:

<http://go.unimelb.edu.au/7ks6>

I look forward to seeing you at the showcase.

**Clare Delany, PhD**  
RHD Lead, DME

## In the spotlight: DME student researchers

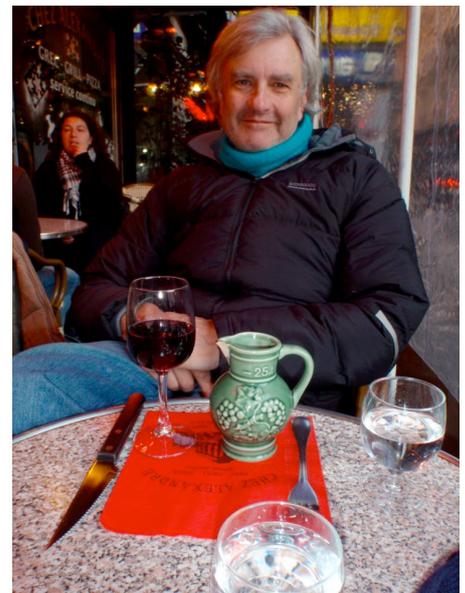
### Associate Professor Chris Wright, PhD candidate

I spent most of my clinical career as an Intensive Care specialist, and teaching was a particular joy for me - finding the right way to explain ideas, and (hopefully!) seeing the "lightbulb" go on. Patients in hospitals can become very sick quite quickly, and I was always keen on teaching young clinicians how to respond to those situations. These sick patients often had abnormal physiology - low oxygen levels, heart rhythm disturbances, problems with kidney function, low blood pressure...

When I became a full time University staff member, I became increasingly interested in what evidence we, as teachers, had for value of the content we taught - and particularly any evidence that teaching "basic science" (physiology, anatomy, biochemistry, pharmacology, pathology) influenced clinical prowess. It seemed "obvious" to me that teaching more basic science would enable graduating students to better treat these deteriorating patients - and thus my PhD.

I'm developing some computer-based deteriorating patient scenarios, and seeing if we can better understand how beginner and expert clinicians use basic science to treat these "patients". This understanding might inform the content, the timing, and method of delivery of basic science to our students.

As the project has progressed, I am troubled by a new nightmare - what happens if we find that "more" basic science teaching doesn't improve novice clinician performance? I suppose that's what this kind of research is all about - you challenge your own preconceptions, and force yourself to go where the evidence leads.



*Associate Professor Chris Wright*

### Dr Eva Kipen, Masters of Clinical Education Candidate

I work as a physician in geriatric medicine at Alfred Health. Five years ago I moved into a senior training position in my specialty. Although I had been involved in teaching during my career, I soon realised I did not have the foundations to deal with more complex training issues, as well as supporting and advising my colleagues.

I started the Graduate Certificate of Clinical Teaching and I have enjoyed the course and my growing understanding of the academic field. The EXCITE Masters seemed like a natural progression in developing my expertise and skills in medical education, in particular qualitative research.

The impetus for my project came from my personal observation of how WBA was being approached by trainees. Often they did not seem to value the learning opportunity that was afforded by the assessment.

I wanted to understand how my trainees were approaching these tasks

from the perspective of their own learning.

In my project, I have interviewed trainees in geriatric medicine about their perspectives of WBA using self-regulated learning as an interpretive lens. The process of interviewing the trainees and asking them to reflect on their learning has been interesting and has furthered my understanding of the complexity of effective WBA.

Post-graduate medical education is delivered in the clinical workplace which is an increasingly hectic and challenging environment to educate trainees. WBA is one of the few mandated learning activities that supervisors perform with trainees.

The overall aim of my study is to improve these experiences for trainees, by furthering our understanding of how trainees learn in the clinical setting.



*Dr Eva Kipen*



*Associate Professor Harlina Halizah Siraj*

#### **Associate Professor Harlina Halizah Siraj, Masters of Clinical Education Candidate**

I discovered my talent as a teacher quite early in my secondary school days when I was often requested by my classmates to re-explain the lessons of the day. I realized that the best way to learn is to teach. The more I teach, the better my level of understanding of the subject matter.

The day I was certified as an O&G specialist, I became a clinician educator at the UKM teaching hospital. I realized that I was poorly prepared and inadequately trained for the grave teaching responsibilities ahead. I was struggling right from the start and ended up imitating the teaching styles of the clinical teachers who had taught me. I became frustrated and disappointed with the ineffectiveness of my clinical teaching and blamed the students most of the time.

After almost 15 years teaching, I decided that I needed some proper clinical teacher training. After obtaining my Graduate Certificate of Clinical Teaching (2014) and Graduate Diploma of Clinical Education (2015) I have transformed my clinical teaching to be more learner-centred, individualised and personalised. I decided to step down from being the educator at the centre of the class to be more approachable and keen on facilitating my learners' discovery - from being the 'Sage on the Stage' to become more of a 'Guide at the Side'.

I am back for my final year in the EXCITE program and hope to graduate with my Master of Clinical Education in 2017. I am committed to learning how to design a qualitative study which is essential for most educational research, and hope to start a Centre of Excellence (CoE) in Clinical Education in UKM within the next five years.

#### **The 2017 Master of Clinical Education cohort**



## PhD Completions

Hiller, Amy (2016). *An exploration of the patient-physiotherapist interaction in the private practice setting*. C. Delany, M. Guillemin.

McDonald, Daniel (2016). *Linguistic Change in an Online Support Group*. P. Gruba, R. Woodward-Kron.

## MClin Ed Completions

Chanter, Catherine. (2016). *Collaborative requesting and organ donation conversations: Experiences, attitudes and practices of trained requesters and treating clinicians*. R. Woodward-Kron, V. Lewis.

Dallas, Anthea. (2016). *Cultural influences on small group learning for health professionals*. C. Delany, L. Monrouxe.

Fraser, Rebecca. (2016). *How do psychiatrists learn to formulate?* C. Delany, C. Golding.

Lazaro, Johanne. (2016). *The learning experience of left-handed dental and oral health students: A student and teacher perspective*. J. Bilszta, J. Satur.

MacDonald, Sonia. (2016). *What are the perceptions and experiences of stigma from nurses working in adult mental health inpatient units and the implications for education?* J. Lysk, B. Tarrant, D. Watkins.

Tan, Meng. (2016). *Continuous real-time web-polling of medical student comprehension during lectures*. A. Dodds, A. Ryan.

## 2017 DME Publications

Congratulations to all DME staff who have published to date in 2017. A selection of health professions education publications is included below.

### Journal articles

Ahern, S., Reid, K., Temple-Smith, M., & McColl, G. (2017). The effectiveness of the internship in meeting established learning objectives: A qualitative study. *Medical Teacher*. DOI: 10.1080/0142159X.2017.1322191

Chiavaroli, N. (2017). Knowing how we know: An epistemological rationale for the medical humanities. *Medical Education*, 51(1), 13-21.

Chiavaroli, N. (2017). Negatively-worded Multiple-Choice Questions: An avoidable threat to validity. *Practical Assessment, Research & Evaluation*, 22(3). DOI: <http://pareonline.net/getvn.asp?v=22&n=3>

Delany, C., Doughney, L., Bander, L., Harms, L., Andrews, S., et al. (2017). Exploring learning goals and assessment approaches for Indigenous health education: A qualitative study in Australia and New Zealand. *Higher Education*. DOI: 10.1007/s10734-017-0137-x

Denniston, C., Molloy, E., Nestel, D., Woodward-Kron, R., & Keating, J. L. (2017). Learning outcomes for communication skills across the health professions: A systematic literature review and qualitative synthesis. *BMJ Open*, 7, DOI: 10.1136/bmjopen-2016-014570

Goss, B. D., Ryan, A. T., Waring, J., Judd, T., Chiavaroli, N. G., et al. (2017). Beyond Selection: The Use of Situational Judgement Tests in the Teaching and Assessment of Professionalism. *Academic Medicine*, 92(6), 780-784.

Greenhill, J., Richards, J. N., Mahoney, S., Campbell, N., & Walters, L. (2017). Transformative Learning in Medical Education. *Journal of Transformative Education*. DOI: 10.1177/1541344617715710

Judd, T., Ryan, A., Flynn, E., & McColl, G. (2017). If at first you don't succeed ... adoption of iPad marking for high-stakes assessments. *Perspectives on Medical Education* DOI: 10.1007/s40037-017-0372-y

Ryan, A., McColl, G. J., O'Brien, R., Chiavaroli, N., Judd, T., et al. (2017). Tensions in post-examination feedback: Information for learning versus potential for harm. *Medical Education*, 51(9), 963-973.

Vithanage, R., Knox, B., & Ryan, A. (2017). Game of hospitals. *The Clinical Teacher*, 14(4), 279-283.

### Book chapters

Chiavaroli, N. (2017). Through the champagne glass, or, what has radical arts to do with medicine? *Risk and Regulation at the Interface of Medicine and the Arts: Dangerous Currents*. A. Bleakley, L. Lynch and G. Whelan (Eds). Newcastle upon Tyne, Cambridge Scholars Publishing.

### Other Research Outputs

Delany, C., Ewen, S., Harms, L., Remedios, L., Nicholson, P., et al. (2017). *A capability approach to assessment for Indigenous health education*. Sydney, Department of Education and Training.

### Accepted/in press articles

Barrett, J., Trumble, S. C., & McColl, G. Novice students navigating the clinical environment in an early medical clerkship. *Medical Education*.

Beck, C., Gaunt, H., & Chiavaroli, N. Improving visual observation skills through the arts to aid radiographic interpretation in veterinary practice: A pilot study. *Veterinary Radiology & Ultrasound*.

Klein, J. Attribution Biases in Assigning Blame for Medical Error. *Medical Education*.

Klein, J., Delany, C., Trumble, S., Fischer, M., & Smallwood, D. A growth mindset approach to preparing trainees for medical error. *BMJ Quality and Safety*.

Lawford, B. L., Delany, C., Bennell, K. L., Bills, C., Gale, J., et al. Training physical therapists in person-centred practice for people with osteoarthritis: A qualitative case study. *Arthritis Care & Research*.

Tai, S., Barr, C., & Woodward-Kron, R. Competing agendas and other tensions in developing patient-centred communication in audiology education: A qualitative study of educator perspectives. *International Journal of Audiology*.