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Welcome to the inaugural research prospectus for the Department of Community Emergency Health and Paramedic Practice (DCEHPP), Monash University. As the profession of paramedicine enters an exciting phase in its research development and maturity, DCEHPP is working hard to cement its position as a leader in paramedical and out-of-hospital research internationally. With experienced research staff and strong clinical connections with Ambulance Victoria and Peninsula Health, our research outputs aim to be of the highest quality, with our focus constantly updating to remain relevant in the ever-changing paramedic education and clinical working environments.

DCEHPP has a strong commitment to research supervision excellence. In 2016, staff from DCEHPP were successful in gaining funding in the 2017 Supervisor Development Grant scheme, with the aim of increasing the number of clinicians involved in research and research supervision. The research team will identify and address the barriers to current research involvement and develop a new approach to supervisor training for busy clinicians.

To establish a strong research base DCEHPP has developed a Research Focus that will allow our experts to lead streams of research. With projects themed under our streams we can ensure a targeted approach to our research trajectory. Our streams focus on Improving Paramedic Wellbeing, Enhancing Paramedic Education and Advancing Paramedic Practice. These streams are led by experienced researchers with international reputations in their fields.

In late 2016, clinicians, researchers and educators from DCEHPP and Ambulance Victoria held a planning day to identify priority areas for future research. From that meeting a large number of project questions were proposed. Although inclusion in this prospectus does not ensure automatic approval for these projects, this prospectus provides us with a strong foundation to attract high quality researchers and guide future funding applications.

Our aim is to encourage paramedics worldwide to prioritise research within their profession and remain informed by the latest evidence. This will ensure the best possible outcomes for paramedicine, paramedics themselves and their patients.
Ziad Nehme commenced his academic studies with DCEHPP in 2004, completing the Bachelor of Emergency Health (Paramedic), and went on to undertake his Honours degree in 2007. Ziad’s Honours thesis evaluated ventilation competency during simulated cardiopulmonary resuscitation in novice paramedics. Having published his research in peer-reviewed journals, Ziad presented his work internationally at the EMS Today Conference in Baltimore, USA. In 2009, he completed postgraduate studies in Clinical Research Methods, before commencing his PhD with the Department of Epidemiology and Preventive Medicine, Monash University.

Ziad’s PhD focused on the early response to out-of-hospital cardiac arrest (OHCA) patients in Victoria, Australia, which demonstrated that improvements in survival from OHCA could be achieved with a systems-based approach to care. During his candidature, he published over 25 peer-reviewed articles (15 as first-author) in leading medical journals such as Circulation, Heart and Resuscitation. Ziad is now a qualified Advanced Life Support Paramedic and Clinical Researcher with Ambulance Victoria and an Adjunct Senior Lecturer with the DCEHPP.

Ala’a Oteir is a passionate academic, researcher, paramedic and physiotherapist. Ala’a is from Jordan, and moved to Australia to commence his PhD, receiving a scholarship from Jordan University of Science and Technology (JUST). His research interest focused on the use of prehospital spinal immobilisation and its association with patient outcomes. During his PhD Ala’a published in the top prehospital emergency journals and presented at several international conferences. One of his papers was selected in the top three papers in the Paramedics Australasia International Conference 2015.

Ala’a was actively involved in teaching and research with DCEHPP including teaching research units, participating in practical tutorials, and assessing students in theoretical and practical exams. It is noteworthy that Ala’a is the first paramedic with a PhD degree in Jordan. He is now back in Jordan, re-joined JUST, and is aiming to use his teaching and research experience to improve the paramedics program at JUST as well as the paramedic profession, education and research in Jordan and the Middle East.
SOME OF OUR CURRENT RESEARCH STUDENTS

TEGWYN MCMANAMNY
Tegwyn McManamny is an operational Mobile Intensive Care Ambulance (MICA) Paramedic with Ambulance Victoria who currently works in rural Victoria. Her interests lie in prehospital health education, prehospital healthcare outcomes in rural and remote regions, occupational risk in paramedic practice and prehospital mixed methods research. She has worked as a sessional instructor and tutor for undergraduate programs at DCEHPP and participates as a reviewer for the Journal of Mixed Methods Research and the Australasian Journal of Paramedicine. Tegwyn completed an Honours in Emergency Health with DCEHPP in 2011, and is currently undertaking a PhD investigating the education role of paramedics for individuals and communities within metropolitan, rural and remote Australia.

BEN MEADLEY
Ben Meadley has been a Teaching Associate and Lecturer in the undergraduate and postgraduate programs at DCEHPP since 2003. Ben has nearly 20 years experience in prehospital care, and is an operational Intensive Care Flight Paramedic (MICA) with Air Ambulance Victoria. He has a keen interest in prehospital critical care, advanced clinical assessment, prehospital critical care interventions and developing clinical judgement in critical care practitioners. Ben has been heavily involved with the development and implementation of contemporary clinical practice guidelines both locally and internationally, with a focus on the areas of paramedic-led HEMS and road-based prehospital critical care. He is a frequent presenter at national and international conferences, and has authored and/or co-authored a number of research. Ben is currently undertaking his PhD at DCEHPP, and is combining his passions for exercise science and overall wellness with his career in paramedicine by investigating links between physical fitness, nutrition, sleep and rates of injury and career longevity amongst paramedics.

TALAL ALSHAMMARI
Talal AlShammari has worked in the field of Emergency Medical Services (EMS) for over 14 Years. His experience includes managing EMS departments, coordinating military missions and disaster coordination in the Ministry of National Guard Health Affairs Eastern Region. He has also worked as an EMS Adjunct Lecturer at King Saud University for Health Sciences and a lecturer of Emergency Medical Care at Dammam University. He holds a Bachelor of Health Science Paramedic, Master of Paramedical Science (Critical Care) and is currently a PhD Student at DCEHPP at Monash University. Talal is also the first to publish a comprehensive history and current status of EMS in Saudi Arabia compared to other countries titled Evolution of Emergency Medical Services in Saudi Arabia. Talal was also recently invited as a speaker at the 2nd International Paramedic Conference at Jordan.

BRENDAN SHANNON
Brendan Shannon is currently working as an ALS paramedic and clinical instructor with Ambulance Victoria. Brendan commenced the Honours program at DCEHPP in 2016 with a view to further advance his knowledge of research methods with a specific interest in prehospital non-transported patients.
OUR RESEARCH PROGRAMS

DOCTOR OF PHILOSOPHY (PHD)

The Department of Emergency Health and Paramedic Practice (DCEHPP) offers the Doctor of Philosophy (PhD) research degree. This degree combines coursework (up to 30%) with research (thesis or publications 70 – 100%) and is ideal for paramedics and emergency care clinicians seeking advanced research skills and who wish to make a substantial impact to their discipline. The Australian Government’s Research Training Scheme (RTS) covers course fees for research candidates who are Australian or New Zealand citizens or Australian permanent residents for the specified duration of their course.

The PhD degree can be completed full or part time, and tailored to suit your employment obligations. Students work with their choice of academic supervisor. Work included in thesis and coursework components must be completed during the period of enrolment in the degree. Most students would complete the PhD over 3 years full time or 6 years part time, although shorter time periods are not uncommon.

Enrolment in the PhD research degree can occur at any time during the year.

Eligible students must hold an honours degree with a level 1 or 2 (A) equivalent. If you have not completed your honours you will need to prove previous research experience, include at least one first author publication in a peer reviewed journal.

MASTERS OF PHILOSOPHY (MPhil)

DCEHPP also offers a two-year Master of Philosophy (MPhil) that can be great preparation for doctoral-level research. This program is a 100% research program with the thesis presented in a traditional format or by publication. Although most aspects of this program are the same as for a PhD, this program should be considered by those who do not currently meet the entry requirements for a PhD (research experience and output is still required). Again this program may be completed on a full time or part time basis, with your choice of academic supervisor.

The MPhil may be submitted for the Masters Award or upgraded to a PhD if all university academic milestones are achieved.

RESEARCH UNITS WITHIN OUR CLINICAL MASTERS

Candidates enrolled in our Masters of Specialist Paramedic Practice may elect to complete research Emergency Health Project as a part of their training. This unit will expand the candidates research skill set and allow them to develop and complete a small research project supported by research academics and clinicians.

This unit is offer by both semesters in an online capacity, for students who have met the required pre-requisites.

BACHELOR OF EMERGENCY HEALTH (PARAMEDIC) (HONOURS)

Our Honours program is a one year full time (two year part time) research training degree, designed to develop graduates who will contribute to clinical research in community-based emergency health, improve patient outcomes and further both the paramedic profession and community-based emergency health services.

The course aims to help high-achieving students acquire the knowledge, skills and attitudes to achieve excellence in research scholarship.

Students undertake a guided advanced studies program in an aspect of community-based emergency health and an approved research project under the supervision of a member of the academic or research staff.

Enrolment can commence in either semester and the program can be completed on campus or off campus.
OUR RESEARCH SUPERVISORS

ASSOCIATE PROFESSOR BRETT WILLIAMS
BA/Ed, Grad Cert Intensive Care Paramedicine, Grad Dip EmergHlth, MHlthSc, PhD, FPA

A/Professor Brett Williams has been an academic leader in prehospital educational research, scholarship and mentorship for over 15 years. Brett has won numerous national teaching awards and has published widely on paramedic and healthcare pedagogy and educational measurement. Brett also holds a number of adjunct appointments with national and international universities. Brett is committed to developing and finding the next generation of paramedic PhD scholars, professionalising paramedic care, and building capacity for paramedicine internationally.

DR KELLY-ANN BOWLES
B Sc (Human Movement Sc), PhD

Kelly-Ann Bowles is the Director of Research and Senior Lecturer with the Department of Community Emergency Health and Paramedic Practice. She is a Biomechanist who has experience working in a diverse range of health and medical setting. She has partnered with Industry and Government departments to deliver research projects and has worked in research and clinical education for undergraduate students, postgraduate students, and practising clinicians. Kelly’s current interests include the health and wellbeing of paramedics and the development of the research focus within the profession.

DR CAMERON GOSLING
BAppSc(HM), Grad Dip (Ex Rehab), MAppSc(Research), PhD

Cameron Gosling is a Lecturer and Researcher with Monash University’s Department of Community Emergency Health and Paramedic Practice. He has a background in sports science, physiology and injury epidemiology. He completed his PhD in injury epidemiology at Monash with the Department of Epidemiology & Preventive Medicine. He has most recently focused his research efforts into the fields of orthopaedic trauma and return to work following a workplace injury. He also has over ten years’ experience educating health professionals. His research interests include injury epidemiology including trauma, workplace and sports injuries, practitioner education and clinical outcome trials. Dr Gosling has over 20 peer-reviewed publications and over $1 million in funding.

MS LINDA ROSS
BTeach, GradDipPhysEd, DipHlth(Amb), BParaStud, MHlthProfEd

Linda Ross is the Head of Undergraduate Programs with the Department of Community Emergency Health and Paramedic Practice, Monash University. Linda practiced as an Advanced Life Support Paramedic with Ambulance Victoria for 15 years before becoming a full time academic. She is predominantly involved in educational research with interests and experience including interpersonal communication, service learning, clinical placements, and care of older adults. She is currently a PhD candidate investigating the preparedness of paramedics to meet the psychosocial needs of older patients.
OUR RESEARCH SUPERVISORS

ADJUNCTS
Professor Karen Smith: Manager, Research and Evaluation, Ambulance Victoria
Associate Professor Ian Patrick: General Manager, Clinical & Community Services, Ambulance Victoria
Associate Professor John Moloney: Adjunct Associate Professor
Associate Professor Conor Deasy: Deputy Medical Director, National Ambulance Service, Ireland
Dr Paul Jennings: Intensive Care Paramedic, Ambulance Victoria
Dr Ziad Nehme: Paramedic and Research Coordinator, Ambulance Victoria
Dr Alexander Olaussen: Critical Care Resident, Alfred Hospital.
Mr Stephen Burgess: Innovation, Research and Policy Officer, Benetas
Dr Kate Cantwell: Intensive Care Paramedic, Ambulance Victoria
Mr David Page: Director of the Prehospital Care Research Forum University of California, Los Angeles, United States of America
Dr Omer Al Sakaf: Director of Medical & Technical Affairs Department, Dubai Corporation for Ambulance Services, United Arab Emirates
Dr Mohammed Alzahrani: Head of Emergency Medical Services Department, Al Maarefa Colleges, Kingdom of Saudi Arabia
Associate Professor Mick Stephenson: Executive Director Emergency Operations, Ambulance Victoria

SUPERVISORY PARTNERS
Professor Stephen Bernard: Senior Medical Adviser, Ambulance Victoria’s
Professor Michael O’Driscoll: Organisational Psychology Programme Convenor, University of Waikato, NZ
Professor Just Stoelwinder: Professor and Chair of Health Services Management
Professor Terry Haines: Director Allied Health Research Unit, Monash Health/ Monash University
Professor Jan Coles: Professor of General Practice, Monash University
Professor James Middleton: Northern Clinical School, Rehabilitation Studies Unit, The University of Sydney
Associate Professor Biswadev Mitra: Emergency and Trauma Physician
Associate Professor Virginia Plummer: Associate Professor School of Nursing and Midwifery, Monash University
Associate Professor Ted Brown: Associate Professor Occupational Therapy, Monash University
Associate Professor Lisa O’Brien: Director of Research, School of Primary and Allied Health, Monash University
Dr John Roedenburg: Senior Lecturer, Education Psychology Activities, Monash University
Dr Angela Williams: Adjunct Senior Lecturer, Forensic Medicine, Monash University
Dr Dion Stub: Senior Research Fellow, Epidemiology & Preventive Medicine, Alfred Hospital
Dr Leanne Boyd: Executive Director Nursing, Cabrini Health
Dr Jade Sheen: Senior Lecturer, Faculty of Health, Deakin University
Dr Elizabeth Skinner: Intensive Care Physiotherapist/Medical Student
Dr Michael Porter: Medical Director, Oklahoma City, United States of America
Dr Rebecca Lane: Senior Lecturer, Department of Physiotherapy, Monash University
Dr Luke Stanke: Data Science/Advanced Analytics Consultant at Slalom, Minnesota, United States of America
Dr Edward Tsai: Far Eastern Memorial Hospital, New Taipei, Taiwan.
Dr Cyline Williams: Allied Health Research Lead, Peninsula Health
The Department has a number of active experienced and emerging researchers. Our focus is to leverage off our research strengths, concentrate our research into clear foci or ‘programs’, and become internationally known for high quality, prehospital research around these strengths.

Very broadly, our research strengths and expertise relate to clinical emergency health research and educational research. Some projects that we have recently completed relate to:

**EDUCATIONAL RESEARCH**
- Curriculum coherence
- Self-efficacy
- Interprofessional education
- Peer-assisted learning
- Simulation
- Difficult conversations
- Empathy

**EMERGENCY HEALTH RESEARCH**
- Intimate Partner Violence
- Out-of-hospital ultrasound
- First responder programs
- Cardiac Arrest
- Occupational Violence
- Management of acute pain
- Epidemiology and management of out-of-hospital cardiac arrest
- Patient safety and critical incident reporting and evaluation
- Epidemiology of trauma and injury

**PUBLICATIONS**
The Department continues to maintain its growth in peer-reviewed publishing. In 2016 DCEHPP has published over 61 refereed journal articles, and 21 refereed conference abstracts. Staff have attracted over $4.3 million in grant funding over the past 12 months.

Many of these refereed publications appear in high quality paramedic, prehospital, EMS, nursing, emergency medicine, interprofessional and education journals. Our experienced researchers and authors are regularly called upon to review journal manuscripts for more than 20 journals. Several of our researchers hold appointments as Associate Editors and Editors with a number of EMS, emergency medicine and education journals.

**RESEARCH SUPERVISION**
Currently we supervise 21 PhD students, a number that reflects the maturity of not just our Department but the paramedic profession more broadly. We also have a large number of Masters, Honours and Summer Scholarship students enrolled in the Department. A great time to do research with us. Our research students are investigating a range of important topics related to EMS and out-of-hospital settings.

**DCEHPP C1 PUBLICATIONS**

Our overarching goal is:

“to be recognised internationally as a centre of prehospital research excellence.”
DCEHPP RESEARCH FOCUS

**IMPROVING PARAMEDIC WELLBEING**
- Manual handling and injury
- Occupational Violence
- Work balance
- Preventative Health
- Psychosocial needs and empathy

**ENHANCING PARAMEDIC EDUCATION**
- Peer Education
- Simulation
- Competency
- Placements and Learning
- Performance Monitoring

**ADVANCING PARAMEDIC PRACTICE**
- Paediatrics
- Community Engagement
- Alternative care pathways
- Resuscitation
- Critical Care
- Elderly
- Trauma
- Mental Health
FURTHER INFORMATION
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