



MONASH
University

MONASH
PRIMARY
AND ALLIED
HEALTH CARE

REHABILITATION, AGEING AND INDEPENDENT LIVING (RAIL) RESEARCH CENTRE

Member eBulletin #28

A message from the Director

It is pleasing to see and hear of our research community re-engaging more strongly face to face with conferences in recent months, including some starting to consider international travel for conferences again. Conferences provide a tremendous avenue for much more than delivering a paper or a poster, but also an excellent avenue for networking, building research relationships, and concept generation for the next novel project idea.

A reminder that the RAIL seed grant applications (for up to \$15,000 funding) close this coming Monday (9th May). Details and application procedures and documentation are detailed below in this e-bulletin. These grants provide an opportunity for small but valuable projects that can be a building block for future larger grants. We reported the excellent outcomes from one of the first round of seeding grants by Dr Em Bould awarded in 2019/20 in our last e-bulletin, and anticipate reporting results of three other seeding grants from this round by the end of this year.

I hope you enjoy reading about our activities and outcomes in the e-bulletin, and we welcome any contributions you consider will be of interest to

others. Finally, if you have colleagues, or people new to Monash who would like to become a Member of RAIL, and thereby be on our email communications and e-bulletin distribution list, please complete the Member survey [online](#).

Stay safe and well.

Professor Keith Hill

Member profile



Dr Melanie Farlie is a Lecturer and Theme 5 Research Coordinator in Year 4 of the Bachelor of Physiotherapy program in the Department of Physiotherapy at Monash University.

In this role Mel oversees the Physiotherapy Research Partnership Program which partners ~100 final year Physiotherapy students annually with academic and clinical project supervisors to complete ~50 health related research projects per annum. Mel joined Monash University in 2020 with over 20 years industry experience as a physiotherapist in orthogeriatric rehabilitation across acute, subacute, community, residential aged care sectors in public and private health. This clinical experience included the clinical education of physiotherapy students, and the entry in to clinical research and six years as the allied health education lead at one of Victoria's largest health networks.

Mel completed her PhD in 2017, developing a measure of balance exercise intensity for use with older adults. This research validated the first objective measure of balance exercise intensity for use by exercisers and exercise prescribers (<https://www.monash.edu/medicine/balance-intensity-scale>). This

mixed methods research project has subsequently led to Mel developing a range of skills in mixed and qualitative research methods in health and education research projects. Mel continues to investigate the psychometric properties and clinical applications of the Balance Intensity Scale and has an interest in investigating clinical decision making processes in exercise prescription practice. Mel also works in collaboration with health professionals and education researchers investigating research questions related to allied health workforce models of care, allied health assistant workforce utilisation, clinical supervision effectiveness in allied health, use of telehealth for delivery of movement disorders rehabilitation services and healthcare for people with dementia and delirium. Mel is the co-lead of the Early and Mid-career researcher group of the ANZ Falls Prevention Society, Education co-lead for the International Association of Physical Therapists Working with Older People (IPTOP) and a member of the Journal of Physical Therapy Education Editorial Board. Mel was awarded as a Titled APA Research Physiotherapist in 2020 and became a Fellow of the Higher Education Academy in 2021.

Member and Partner forum

Upcoming RAIL forum

RAIL is pleased to announce the next forum titled *Robotics in health care: The future is here*, that will be held via Zoom on Tuesday 24th May, 4:00pm - 5:00pm, AEST.

Robotics in health care: The future is here

In this forum, our guest speakers will present their work on the topic of robotics in health care. Dr Robinson will discuss studies using autonomous social robots in the delivery of health promotion, wellbeing services and healthcare interventions. Dr Carreno-Medrano will present preliminary work on a digital self-management intervention for preventing musculoskeletal injuries and pain in office workers. Ms Wu will then present work on developing an adaptive framework that provides personalised gait cues to people with Parkinson's Disease and monitors their responses to these cues. Finally, Professor Pei-Lee Teh will present on soft robotics in gerontechnology research.

Date: Tuesday 24 May 2022

Time: 4.00 – 5.00 PM AEST

Venue: Online Via Zoom

RSVP: 23 May 2022

Register: [CLICK HERE](#)



Dr Nicole Robinson - Interactive Robots in Supporting Health and Wellbeing Services

Dr Nicole Robinson is a Research Fellow at Monash University with a cross appointment between the Faculty of Engineering and the Faculty of Medicine, Nursing & Health Sciences. She is affiliated with the Department of Electrical & Computer Systems Engineering, Turner Institute for Brain and Mental Health, and the School of Psychological Sciences. She is also an Adjunct Lecturer with Queensland University of Technology Centre for Robotics.



Dr Pamela Carreno-Medrano - Socially assistive robots for the prevention of musculoskeletal disorders in office workers

Dr Pamela Carreno-Medrano is a Research Fellow in the Faculty of Engineering. Her research focuses on understanding and analysing human motion and behaviour for human-robot interaction purposes. In particular, she is interested in investigating how the underlying information humans convey through their movements and action choices can be used to inform and guide a robot's actions and social-interactive behaviour.



Ms Tina Wu - Adaptive assistance for Parkinsonian Gait

Ms Tina Wu is a PhD candidate in Electrical and Computer Systems Engineering working under the supervision of Prof. Dana Kulic. Her research interests include human motion analysis, rehabilitation, and robotics.



Professor Pei-Lee Teh – Soft Robotics in Gerontechnology: Challenges and Opportunities

Professor Pei-Lee Teh is the Head of Department of Management at the School of Business and the Director of Gerontechnology Laboratory at Monash University Malaysia. She is passionate to drive research on how technology transforms business processes and organisations, and on a huge spectrum of impacts on people's lives and society at large. She runs a substantive research program focused on developing technological solutions for mobility and aging.

[REGISTER HERE](#)

Previous RAIL forum

In our most recent RAIL forum titled 'Falls prevention in the community - What's new?' that was held on 28th April 2022, falls prevention experts provided an update on the current research, practice and novel designs and presented impact and results of specific programs and studies. It was noted that despite strong research contributions such as these though, Australia continues to fail to curtail the 2-3% annual increase in age adjusted hospitalisations over the past 10 years.

Please see below a brilliant summary of the presentations designed by Dr Amelia Crabtree (Consultant Geriatrician at Alfred Health).

ARE WE THERE YET?
50% OF PEOPLE DISCHARGED FROM ED AFTER FALLING
CONTINUE TO FALL !!
FALLS WITH HOSPITALIZATIONS ↑ 2% PER YEAR
WE NEED TO DO MORE!

THE STEPPING ON PROGRAMME
PROF. ANNE TIEDEMANN
EXERCISE HAZARDOUS 2004 FOOTWEAR VISION VITAMIN D + MEDS
↳ 31% REDUCTION IN FALLS

WHAT'S NEW IN FALLS PREVENTION?
DR MORAG TAYLOR
LED. EVIDENCE FUNCTIONAL COG. + HOME HAZARD ASSESSMENTS
STRENGTH + BALANCE TRAINING
overall -ve result: BUT, MULTIPLE FALLERS REDUCED AFTER ADJUSTMENT
SUBGROUP: IN PEOPLE WITH BETTER BASELINE PHYSICAL FUNCTION ... IMPROVED FALLS RATE & INTERVENTION

STEP-WEDGE TRIALS
PROF. TERRY HAINES
MEASURES CAN DECEIVE... YOU NEED PRE-INTERVENTION DATA TO INTERPRET

WHAT ABOUT THE REAL WORLD?
NOW! ONGOING BEHAVIOURS REGULAR STRENGTH & BALANCE ↑ SAFE WALKING STRATEGIES ↑ CATARACTS ↓ VIT D SUPPS ↓
M • ILL HEALTH • NO TIME • NO TRANSPORT • CARING ROLE

EACH CLUSTER = OWN CONTROL
UNIDIRECTIONAL CROSS-OVER DESIGN
→ Better control of confounding
→ Everyone gets intervention
→ DATA COLLECTION CAN BE BURDENSOME

RAIL FORUM: APRIL 28th, 2022. @crabtree-amelia

The event was a success with over 50 people attending the event! Thank you to Dr Crabtree for developing and providing this summary and to Professor Keith Hill, Professor Anne Tiedemann, Dr Morag Taylor and Professor Terry Haines for their great presentations!

RAIL paper of the month

A survey of nurses, physiotherapists and occupational therapists in mobility care and gait aid use for hospital patients with dementia

Den-Ching A. Lee, Claudia Meyer, Elissa Burton, Su Kitchen, Cylie Williams, Susan W. Hunter, Plaiwan Suttanon, **Keith D. Hill**

ABSTRACT

This study described mobility care practice of nurses, physiotherapists and occupational therapists and gait aid use for hospital patients with dementia. Two surveys, tailored to staff mobility care roles were distributed in Australian hospitals. Physiotherapists and occupational therapists were asked additional questions regarding assessments and factors for prescribing gait aids to patients with dementia. Descriptive statistics for closed-ended and summative content analyses for open-ended questions were undertaken. Nurses (n=56), physiotherapists (n=11) and occupational therapists (n=23) used various practices to ensure ambulation safety for patients with dementia. Nurses and occupational therapists commonly referred patients with dementia to physiotherapists for mobility and gait aid assessments. Therapists predominantly considered the severity of dementia, the person's learning ability and mobility history in deciding about gait aid use. Exploring ways to strengthen nursing and health professional education, and inter-professional practice for safe mobility in patients with dementia, with and without gait aids, could be helpful.

Highlights

- Gait aid use improves stability but may cause falls in people with dementia.
- Staff education should include safe mobility for hospital patients with dementia.
- Education for therapists could include gait aid use and prescription for dementia.
- Inter-professional practice may improve consistency in mobility management.
- Strategies for safe mobility with and without gait aids should be considered.

Lee, D.-C. A., Meyer, C., Burton, E., Kitchen, S., Williams, C., Hunter, S. W., Suttanon, P., & **Hill, K. D.** (2022). A survey of nurses, physiotherapists and occupational therapists in mobility care and gait aid use for hospital patients with dementia. *Geriatric Nursing*, 44, 221-228. <https://doi.org/10.1016/j.gerinurse.2022.02.017>

RAIL - MyTherapy project update



The Rehabilitation, Ageing and Independent Living (RAIL) team are very happy to announce that they recently finalised recruitment and data collection for the NHMRC-funded clinical trial: “My Therapy”.

The team, led by **Dr Natasha Brusco** (RAIL), have recruited **3730 participants** over **54 weeks** at four participating rehabilitation sites (Alfred Health, Cabrini, Eastern Health and Healthscope).

RAIL Research Centre Investigators also included **Professor Keith Hill, A/Professor Libby Callaway, Dr Christina Ekegren** (Project Lead) and **Sara Whittaker** (RAIL PhD Student), with additional Monash University Investigators including Dr Annemarie Lee and Professor Natasha Lannin.

This NHMRC Partnership Project explored the implementation of independent practice of exercises and activities in rehabilitation, without additional staffing resources, to increase participation in rehabilitation. We look forward to sharing the results of the trial in coming months as we embark on an intensive data analysis phase.

RAIL team member's article in The Conversation

Last week, RAIL Independent Living Stream Lead **Associate Professor Libby Callaway** had an article published in The Conversation, titled, *"Workforce shortages are putting NDIS participants at risk. Here are 3 ways to attract more disability sector workers"*.

The article identified the disability workforce challenges that exist and outlined strategic approaches to attract new workforce - as well as build capacity of existing disability support workers and allied health professionals - within the NDIS. Strategies proposed include a focus on skilled migration policy, allied health student education and professional practice programs in disability, and improved employment conditions for the existing workforce.

You can read the [article here](#).

My Professional Practice Space is now available and free to use!

My Professional Practice Space - a free online Learning Management System for allied health students and educators to use during NDIS and broader disability-focused professional practice placements - is now live. Access it using the purple button located on the home page of www.myalliedhealthspace.org



My Professional Practice Space



<https://www.myalliedhealthspace.org/>



International Association of Physical Therapists Working with Older People (IPTOP) Webinar

Physical activity for people with dementia

Date: Tuesday 10th May 2022

Time: UTC 9:00 | 7pm Sydney | 5am NYC

Date: 10 May 2022

Time: UTC 9:00 | 7pm Sydney | 5am NYC



webinar series

PHYSICAL ACTIVITY

for people with dementia

Maintaining habitual physical activity may be an inclusive, inexpensive strategy to promote independence in dementia. Riona will highlight current research into continuously measuring physical activity across the spectrum of care and cognition, and will explain current understanding of the socio-ecological influences of physical activity in dementia



RIONA MCARDLE
NEWCASTLE UNIVERSITY UK

[Register Here](#)



Dr Riona Mc Cardle is Research Fellow at Newcastle University, a funded National Institute of Health Researcher. Her research ambition is to improve diagnosis and care for people with dementia through applied digital healthcare solutions. Her main focus is the use of digital mobility outcomes in people with dementia. As a psychologist, she brings a novel perspective to the area of mobility, bridging psychology, movement science and translational clinical research. Her current research focuses on identifying psychosocial outcomes to improve physical activity following dementia diagnosis.

To register to the webinar, click on the image to download the flyer and access the registration link or register via the link below.

[REGISTER HERE](#)

For more information on IPTOP, please visit: <https://www.iptop-physio.org/>

RAIL Early to Mid Career Seed grant closing soon!

The 2022 round of RAIL seeding grants is currently open and **will close at 5pm on Monday 9th May 2022.**

A total of \$45,000 is available for this round of RAIL EMCR research grants, with individual applications able to apply for up to \$15,000.

The objectives of this scheme are to:

- Support early-mid career researchers with high research potential to progress their research careers by funding high quality research projects and pilot research projects on a competitive basis
- Encourage cross disciplinary research collaboration
- Enhance the staff member's competitiveness in bidding for external research funds
- Provide experience in preparing a grant application for peer review
- Provide research funding for projects that are strategically aligned with RAIL's research priorities
- Provide an opportunity for research mentorship

Given RAIL's focus on building research on the Peninsula campus, projects need to include at least one researcher based at the Peninsula campus of Monash University.

Chief Investigators from the successful grants from the previous grant scheme are ineligible to apply as Chief Investigator in this round, but can be an Associate Investigator in this round.

To obtain a copy of the guidelines and application form please click [HERE](#).

RAIL RESEARCH PROJECTS - Research participants required

Study of digital interventions for healthy ageing – a call for participants



LiveUp research – evaluating a digital suite of solutions aimed at improving functional abilities in older Australians

RAIL researchers **Dr Natasha Layton**, **Dr Natasha Brusco** and **Professor Keith Hill** in partnership with Dr Elissa Burton of Curtin University, are conducting the early implementation evaluation of LifeCurve <http://www.liveup.org.au>. The research involves in-person assessments from a health professional researcher, and participants will be offered a summary of their assessments as well as a summary of the research.

Participants from Frankston and the Mornington Peninsula region (Victoria) **who are over 65 (or over 55 for indigenous Australians), living at home and experiencing some functional difficulties are sought.**

The Research Flyer and consent information can be found here <https://www.monash.edu/medicine/spahc/rail/research/current-research-projects>

Or contact **Dr Natasha Layton** natasha.layton@monash.edu

A home-based walking aid-training program for people with dementia or cognitive impairment and their carers - LAST CALL for participants

We are seeking people with dementia or cognitive impairment and those who care for them to participate in a 6-week walking aid-training program at home.

What are the eligibility criteria?

- are aged 65 years or older
- formally diagnosed with dementia, or have a cognitive impairment (assessed by a cognitive test, the researcher can assess this if you have not had one done recently), or if you receive a dementia supplement in your home care package.
- had at least one fall in the preceding 12 months, or report unsteadiness when walking or turning.
- are not already using a walking aid or if using a walking stick but would like to try out a more supportive walking aid e.g. a wheeled walker
- are willing to participate in a 6-week walking aid-training program.
- have a carer who is available to support and reinforce correct walking aid use.
- live in metropolitan Melbourne.

What will I receive?

- Free home visits and training by an experienced physiotherapist.
- Free walking aid if using one is safe for you.

Further information and enrolment:

Please contact Dr Angel Lee at Angel.Lee@monash.edu.

We are enrolling participants until 31st May 2022

Early and mid-career research support activities

Although the staffing level for RAIL at this point is small, we are keen to provide support for any early or mid career researcher that we can. We are happy to provide an external review perspective of grants you are preparing as one avenue of support. If you would like to discuss possibly accessing this service, please email Karine in the first instance (spahc.rail@monash.edu).

Member contributions

We would love to showcase current research from our members. We invite you to submit a short story (and relevant images) about any research you are working on that aligns with RAIL. Submissions are due by the 30th of each month to spahc.rail@monash.edu.