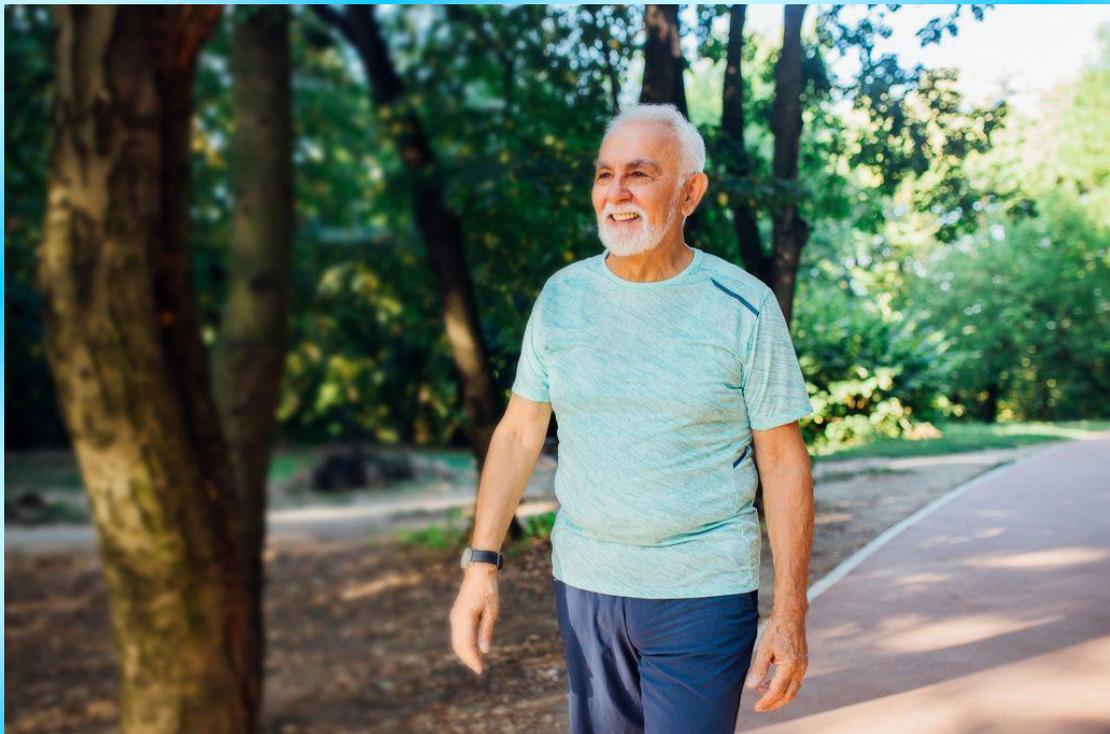


## 2021 Annual Report

**The Centre of Research Excellence  
in the Prevention of Fall-related Injuries**



**A research collaboration funded by the National Health and  
Medical Research Council.**

Welcome to the first annual report of the Centre of Research Excellence Prevention of Fall-related Injuries (CRE-PFI). This report was prepared by Ms Sandra O'Rourke, CRE-PFI manager, and Professor Cathie Sherrington, CRE-PFI Chief Investigator.

This report will provide an update on the progress of the CRE in the Prevention of Falls Injuries. Our funding will enable the team to undertake innovative research that involves consultative development and rigorous testing of new approaches to implementation and scale-up of effective interventions, as well as the development of new interventions to prevent fall-related injuries in Australia.

# Introduction

## Background

### *Who we are?*

The NHMRC Funded CRE - Prevention of Fall-related Injuries brings together a diverse team of researchers that will collaboratively develop and evaluate strategies in fall prevention that will have the best chance of reducing Australia's rising rate of fall-related injuries.

### *What we do*

We strive to extend our knowledge base by linking with stakeholder groups to co-create, implement, scale-up and evaluate strategies designed to reduce fall-related injuries. We support and guide implementation of evidence-based falls prevention strategies into policies, practices, and programs.

### *Our Mission*

Our mission is to develop and implement evidence-based strategies to prevent fall injuries.

## Aims

We will focus on solutions that can be implemented within current health, community services or residential care. All strategies will be developed with input from policy makers, health service managers, clinicians, consumers, and carers to maximise their chance of success. The CRE-PFI is divided into four research streams.

## Research Themes

### ***Theme 1. Better use of existing data to develop new solutions***

Identify the most effective solutions for fall-related injuries in different Australian settings and circumstances.

### ***Theme 2. Co-design new solutions***

Co-design fall-injury prevention interventions and implementation strategies, suitable to be scaled up and embedded into existing services in conjunction with clinicians, managers, policy makers, patients and carers.

### ***Theme 3. Test implementation of evidence-based interventions***

Evaluate implementation of evidence-based fall-prevention interventions with pragmatic trials using effectiveness-implementation hybrid designs.

### ***Theme 4. Test new pragmatic interventions***

Test new pragmatic fall-injury prevention interventions that build on previous evidence and offer novel solutions.

## Our Team

Our CRE team consist of researchers from many disciplines including:

- Falls prevention
- Falls injury prevention
- Geriatric Medicine and Gerontology
- Physiotherapy
- Occupational therapy
- Implementation science
- Orthopaedics
- Endocrinology
- Rehabilitation Medicine
- Health Economics
- Epidemiology

# OUR TEAM

## Chief Investigators

### Professor Cathie Sherrington

Professor, Sydney School of Public Health, University of Sydney. Cathie leads the 28-person Physical Activity, Ageing and Disability Research Stream within the Institute for Musculoskeletal Health (a partnership between the University and Sydney Local Health District) and is Deputy Director of the Institute. She has led or collaborated on 47 RCTs (18 with NHMRC funding) and 25 systematic reviews about exercise to prevent falls and enhance mobility. *Scopus* ranks her 3rd in the world for research into independent living and falls. She co-leads the physiotherapy group of the Global Fragility Fracture Network.



### Professor Stephen R Lord

A Scientia Professor at UNSW and NHMRC Senior Principal Research Fellow. He works in the areas of applied neurology, psychology, instability, falls and fractures in older people. He has co-edited a Handbook of Neurology on Balance, Gait and Falls and published 145 peer-reviewed journal articles, 3 reviews, four book chapters and nine other articles. He has received a Tomson Reuters Highly Cited Researcher Award ranking him among the top 1% most cited researchers internationally.



### Professor Maria Crotty

A Rehabilitation Physician who leads the Rehabilitation Studies Unit at Flinders University College of Medicine and Public Health, which undertakes research on treatments in rehabilitation. She is a clinician manager and Director of Rehabilitation in Southern Adelaide. Her expertise lies in running pragmatic clinical trials within rehabilitation and aged care settings and she has led trials on home rehabilitation, day rehabilitation, transition care and case conferencing, which have informed Australian funding models. Professor Crotty has extensive networks with clinicians, managers and policy makers working in aged care and in the disability and rehabilitation sectors.



### **Professor Terry Haines**

Head of School, School of Primary and Allied Health Care at Monash University. This follows his previous appointment as Director of Monash Health & Monash University Allied Health Research Unit, Monash Health. He has pursued work in the areas of falls prevention, implementation science and translation of evidence into policy and practice.



### **Professor Julie Byles**

Director of the Research Centre for Generational, Health and Ageing – a Priority Research Centre at the University of Newcastle. As a clinical epidemiologist, Professor Byles' interests are in risk determination, health assessment, other health care evaluation, and measurement of health outcomes. As a Gerontologist and Fellow of the Australian Association of Gerontology, Professor Byles' research interests in ageing include the role of health services, preventive activities, and treatments in maintaining quality of life for older people. Her work has included health assessment, medications used by older people, sleep disturbance, health effects of alcohol, nutrition screening and interventions, health and retirement, and prevention of falls in residential care.



### **Professor Markus J Seibel**

Professor of Endocrinology at the University of Sydney and the Inaugural Director of the Bone Research Program at Sydney's ANZAC Research Institute. He has an extensive track record in basic and clinical research into musculoskeletal health and biology. In recognition of his substantial contributions to biomedical sciences and health, Markus was elected Fellow of the Australian Academy of Health & Medical Sciences in 2017. Since 1986, his research has been continuously funded through competitive grants and his work has been cited >20,000 times.



### **Professor Ian Cameron**

Prof Cameron is the Head of the John Walsh Centre for Rehabilitation Research, Faculty of Medicine and Health, University of Sydney. He is a Consultant Physician in Rehabilitation Medicine and the Chair in Rehabilitation Medicine, at the University of Sydney. His current research themes are injury, rehabilitation, and disability; specifically, disability and health in older people, musculoskeletal injury in compensable settings, and catastrophic injury (associated with severe long-term disability).



### Professor Jacqueline Close

A consultant in Orthogeriatrics at the Prince of Wales Hospital in Sydney and Clinical Director of the Falls, Balance and Injury Research Centre at Neuroscience Research Australia. Her primary research area is falls in people with cognitive impairment and dementia and particularly the relationship of cognitive function to postural stability, falls and fractures. She has an epidemiological interest in the impact of falls and injury to health service use and the way in which health services are designed to prevent and manage falls and injury in older people. She sits on a number of State and National committees in relation to Aged Health and is Co-Chair of the ANZ Hip Fracture Registry, Chair of the ACSQHC Clinical Care Standards Working Group for Hip Fracture.



### Professor Kirsten Howard

Professor of Health Economics in the Sydney School of Public Health at the University of Sydney. Her research focuses on methodological and applied health economics research. She has led the economic evaluations of a large number of intervention trials in kidney disease and falls prevention interventions and has conducted many discrete choice experiments of patient and consumer preferences in areas as diverse as cancer screening, including benefit harm trade-offs, labour induction, aged care services, exercise interventions for older people, dialysis services and organ donation and allocation policy. She is Chair of the Economics Sub Committee of the Pharmaceutical Benefits Advisory Committee (PBAC) and a member of the PBAC.



### Professor Adrian Bauman

A professor of Public Health at Sydney University, Australian Prevention Partnership Centre leader in Implementation Science and scale up evaluation and leader of the Sydney-based World Health Organization Co-ordinating Centre on Physical Activity. He is very widely published in physical activity and public health research. He brings epidemiological expertise in use and analysis of cohort and intervention data, interpretation and policy-translation of physical activity evidence, experience in research and practice-based methods for research translation, including the design and evaluation of communications research and assessing the reach of physical activity and exercise evidence into professional and public arenas and into policy and practice, management of scale up and research translation projects. He has broad collaborative relationships nationally and internationally.



## Associate Investigators

### Professor Richard Lindley

An academic geriatrician at the University of Sydney with experience of conducting large scale randomised controlled trials in stroke, aged care, frailty and falls. He remains in hospital clinical practice (Blacktown Hospital) two days a week. He is the Co-Chair of the University of Sydney's Lifespan Research Network that supports innovative new research for those in major life transitions such as the frail elderly. He is a mentor for the Science in Australia Gender Equity program.



### Professor Allison Tong

Professor at the Sydney School of Public Health, The University of Sydney. Her main interest is in using applied qualitative research methods to the areas of chronic disease and disability to improve practice and policy for improved patient-centred outcomes. She has published reporting guidelines for primary qualitative research (COREQ) and systematic reviews of qualitative health research (ENTREQ) which are endorsed by the EQUATOR network and by international peer-reviewed journals.



### Professor Andrew Milat

Director, Evidence and Evaluation at the NSW Ministry of Health. Prof Milat is a leading authority on the scale-up of health interventions in complex health systems and his scalability framework will guide efforts to facilitate system-wide adoption of effective interventions implemented into policy and practice. With over 20 years' experience in the design, implementation and evaluation of innovative health policies and programs at national, state and local levels he has a unique appreciation of the interface between research and its adoption into policy and practice.



### Professor Vasi Naganathan

An academic at the University of Sydney, a Geriatrician at the Centre for Education and Research on Ageing and the Deputy Project Director of the Concord Health and Ageing in Men Project. His research interests are wide including: health of older men, oral health, falls, fractures and osteoporosis, pharmacology in the older people and the application of evidence-based medicine to older people. His research strength is his ability to collaborate with people from a variety of disciplines who share his passion and interest in conducting research that has the potential to improve the health and quality of life of older people.



### **Dr Xenia Dolja-Gore**

A NSW Health Prevention research fellow at the University of Newcastle and the project biostatistician for the Analysis for Policy program at the Sax Institute. Dr Dolja-Gore is a senior biostatistician, she has substantial experience using linked longitudinal health data to identify and analyse key areas of quality and efficiency in health service utilisation. She has very strong methodological skills, with a focus on data quality; with expertise in the analysis of treatment optimisation and identification of the delivery of health services. Dr Dolja-Gore has undertaken the application of systems theory methodology by using mathematical modelling techniques to frame, understand, and describe complex issues and problems to help with decision making in disease prevention.



### **Professor Ian Harris**

Professor of Orthopaedic Surgery at the South Western Sydney Clinical School, UNSW and is Honorary Professor at the School of Public Health, University of Sydney. As a clinician, his interest is in trauma surgery and this aligns with his academic activities, many of which focus on fractures in older people. Previous co-chair of the ANZ Hip Fracture Registry and is conducting multicentre randomised trials on wrist fractures and hip fractures in older people in Australia. He has extensive experience in clinical trials and clinical and teaching expertise in fall-related injuries in older people.



### **Mr Matthew Jennings**

Director of Allied Health at Liverpool Hospital, the Director of Physiotherapy, South Western Sydney Local Health District and Deputy Lead for the Musculoskeletal Health Clinical Academic Group, The Sydney Partnership for Health Education, Research and Enterprise (SPHERE). He has a role in policy and practice as a member of the hospital executive, as Co-Chair of the NSW Agency of Clinical Innovation (ACI) Musculoskeletal Network and as member of the NSW Department of Health Physiotherapy Advisors Group. Mr. Jennings has led the multidisciplinary development, implementation and evaluation of a number of NSW care programs.



### **A/Professor Patrick Kelly**

Associate Professor in Biostatistics at the Sydney School of Public Health, The University of Sydney and is the Program Director of the Masters of Biostatistics at The University of Sydney. He has extensive experience in developing and applying statistical methods to research in health and medicine. His main areas of research include randomised control trials especially cluster RCTs, survival analysis and analysing linked health services data for retrospective cohort studies.



### **Professor Rob Herbert**

NHMRC Principal Research Fellow and Senior Principal Research Scientist at Neuroscience Research Australia. He conducts clinical trials investigating the effectiveness of physiotherapy interventions as well as laboratory research into the mechanical properties of human muscles in health and disease. He is a founder of the Centre for Evidence-Based Physiotherapy which developed and maintains the PEDro database.



### **Dr Danielle Currie**

A System Dynamics Modeller at The Sax Institute and a Research Fellow in Menzies Centre for Health Policy at the University of Sydney. Her work focuses on creating user friendly dynamic simulation models to help decision-makers gain insight of the complex public health problems they routinely encounter. Her research interests have included exploring population-level approaches to preventing communicable and non-communicable disease, building systems capacity through participatory model building, and improving the integration of evidence into public health decision-making processes.



### **CRE PFI Manager**

#### **Ms Sandra O'Rourke**

Ms O'Rourke has been a research project coordinator in falls prevention studies for over 17 years. She coordinates the day-to-day running of the CRE. She is responsible for CRE management, collaboration with all the researchers and organisation of meetings and events.



## CRE Funded Early Career Research Post-Doctoral Fellows

### Dr Morag Taylor

Dr Morag Taylor is a Senior Postdoctoral Research Fellow at Neuroscience Research Australia. She was awarded a prestigious NHMRC-ARC Dementia Research Development Fellowship 2016 – 2019. Her work is currently focusing on physical and cognitive function and fall/fall-injury risk and prevention in older people with dementia. She completed her PhD (Understanding fall risk in cognitively impaired older people) in 2014 and has presented her work nationally and internationally and has 33 publications. Morag is a physiotherapist with extensive experience working in Aged Care Rehabilitation, as well as the Falls, Balance and Bone Health clinic. Her role within the CRE is to undertake a body of work aimed at understanding care and outcomes in older people with dementia who have sustained a hip fracture. She plans to pilot an intervention aimed at improving care and outcomes for this group.



### Dr Jasmine Menant

Dr Menant is a Research Fellow at Neuroscience Research Australia. Her research involves gait laboratory-based experiments, longitudinal studies and randomised controlled trials investigating balance control mechanisms, fall risk factors and effective interventions to improve health outcomes in ageing and clinical populations. She has written 9 book chapters, 74 peer-reviewed papers. She is the communication manager of the ANZ Falls Prevention Society and the blog editor of the International Society for Posture and Gait Research. Within the CRE, Jasmine will work on the update of ANZ best practice guidelines on fall prevention intervention, systematic reviews and secondary analyses of falls studies datasets as well as conduct a study to explore risk factors for falls in cancer survivors with chemotherapy-induced peripheral neuropathy.



### Dr Marina De Barros Pinheiro

Dr Pinheiro is a NHMRC Early Career Fellow at Sydney School of Public Health, The University of Sydney. Her research focuses on investigating the cost-effectiveness of physical activity programs and implementing solutions to improve physical activity promotion by health professionals within routine care. She has published 61 peer-reviewed papers and has attracted more than \$2.6 million dollars in research-related grants and fellowships. Marina will work on projects investigating the cost-effectiveness of solutions to fall-related injuries and will also contribute to the co-design of fall-injury prevention interventions and implementation strategies.



### Dr Juliana Souza De Oliveira

Dr Oliveira is a Postdoctoral Research Fellow physiotherapist at the Institute of Musculoskeletal Health at the University of Sydney. Juliana has a leading role in coordinating NHMRC funded trials on physical activity coaching and yoga for fall prevention. Juliana's research focuses on clinical trials for optimising physical activity and preventing falls among older people.



### **Dr Suzanne Dyer**

Dr Suzanne Dyer is a Senior Research Fellow at Flinders University. She has been conducting research in the public and private sector for over 20 years, with expertise in evidence-based medicine methodologies including health technology assessment, systematic reviews, meta-analysis and guideline development. Suzanne is an author of 46 publications and 24 contracted research reports for government and NGOs, including the Cochrane Collaboration Review of Interventions for preventing falls in older people in care facilities and hospitals, two reviews conducted for the Aged Care Royal Commission and the Australian Clinical Practice Guidelines for Dementia. In her role with the CRE, Suzanne aims to improve the evaluation and interpretation of existing trial evidence for falls prevention strategies, contributing to improved recommendations and cost-effectiveness evidence for falls prevention approaches. She will also guide South Australian clinicians on evaluation of existing falls prevention strategies in hospitals.



### **CRE Higher Degree Research Candidates**

#### **Ms Venisa Kwok**

Venisa is a PhD student at the Institute of Musculoskeletal health at the University of Sydney. She is a physiotherapist and has been working with older people in residential aged care facilities and in the community. Venisa's research focuses on preventing falls and fall related injuries in older adults.



#### **Mr Rik Dawson**

Rik Dawson is an experienced aged care physiotherapist. Rik was the owner of Agewell Physiotherapy, a practice that employed physiotherapists and occupational therapists in aged care across Australia. Rik sold his practice in 2020 and is now enrolled at Sydney University as HDR candidate where he is focusing on telehealth for older people under the supervision of Professor Sherrington and Dr Pinheiro. Rik has a scholarship awarded by this CRE to support his HDR program. He will investigate the effectiveness, cost-effectiveness, and acceptability of physiotherapy led exercise programs delivered via telehealth for older Australians. This research will answer key questions about whether the role of technology can reduce falls, enhance mobility and quality of life of older people with and without dementia receiving aged care services in their home or in residential aged care. Rik is the Vice President of the Australian Physiotherapy Association.



#### **Ms Charlotte McLennan**

Charlotte is a Physiotherapist and Health Manager in Sydney Local Health District and a PhD candidate with the University of Sydney. Her clinical background is in aged care and rehabilitation. Charlotte's current position of Inpatient Falls Research Manager is based within the Institute for Musculoskeletal Health and is supported by Sydney Local Health District. Her research focuses on understanding and reducing falls in hospital settings.



# CRE-PFI 2021 Funded Project Updates

## **Dr Morag Taylor**

Project 1: Characteristics and outcomes of older people with dementia who do and don't receive rehabilitation after surgery for a hip fracture.

We have obtained appropriate ethical approval and access to the SURE environment. Data cleaning and analysis is underway, and some results have been produced, with further analyses and results to come. The manuscript draft is also underway.

Project 2: Care provision and outcomes in older people with and without cognitive impairment who sustain a hip fracture

We have drafted, submitted and received appropriate ethical approval for the project. The data has been supplied by the ANZHFR and data cleaning and labelling has commenced.

## **Dr Jasmine Menant**

During the past year as part of the CRE we have been primarily working the following projects:

- (i) a systematic review and meta-analysis investigating the effectiveness of cognitive-motor interventions on falls and physical, cognitive and psychological fall risk factors in older community-dwelling people. Analysis of the data is underway.
- (ii) a secondary analysis of longitudinally acquired data investigating determinants of falls location in older people (i.e., indoor versus outdoor falls, home versus away falls).
- (iii) translation of evidence into policy: collaborating with members of the CRE and international falls prevention experts on the writing of the World guidelines for falls prevention, specifically on the section on exercise interventions for the prevention of falls.

## **Dr Marina De Barros Pinheiro**

Enhancing transition from hospital to community-based exercise for patients with musculoskeletal disorders: pilot implementation study

We have completed the phase 1 of the project, which included comprehensive literature reviews and consultations with stakeholders, formal qualitative interviews with consumers and workshop with stakeholders. Based on the findings of phase 1 we created a transition exercise program to overcome the challenges faced by patients to engage in ongoing physical activity outside the hospital. Due to the COVID-19 restrictions, we have adapted the program so it can be delivered remotely. We have set up a randomised controlled trial to investigate the adapted version of the program, where participants will receive remote support to continue participating in exercise opportunities.

Despite the impact of COVID-19 we were able to make substantial progress, including the completion of stage 1 of this project, a manuscript on qualitative results in preparation, a manuscript about the co-design process in preparation, and the presentation of results internally. We have used the pilot data collected in this project to support several grant applications. One application was successful.

Economic evaluations of fall prevention exercise: systematic review for the WHO. We completed a WHO-commissioned review investigating the value for money of exercise interventions for fall prevention. The final report was submitted in December 2021, and we are preparing the manuscript for submission to a peer-reviewed journal.

### **Dr Juliana Souza De Oliveira**

Dr Oliveira is a Postdoctoral Research Fellow at the Institute for Musculoskeletal Health, and she works in the Centre of Research Excellence in the prevention of fall-related injuries, designing strategies to implement supported referral to community-based fall prevention exercises into health services. This year she was awarded two grants: (1) ANZMUSC Clinical Trials Network Seed Funding Research Scheme, \$20,000; (2) Women's Health Research Translation Network. Early and Mid-Career Researcher Funded Award, \$15,000. She has presented her research at four international and national conferences & scientific meetings. She has also provided major contributions to a report for the WHO on the best available evidence for the effectiveness of physical activity programmes and services for older adults.

### **Dr Suzanne Dyer**

Since March 2021, Suzanne Dyer has contributed to developing recommendations for the World Falls Guidelines for exercise to prevent falls in older people, drafting recommendations and providing guidance on the use of GRADE (Grading of Recommendations, Assessment, Development and Evaluations) for guidelines. Suzanne has updated a meta-analysis with novel subgroup analyses of exercise and multifactorial trials conducted in aged care settings and has commenced a novel analysis of these studies. This analysis will inform which elements of the trials contribute to achieving positive falls prevention outcomes. She has presented a poster on outcomes following non-hip, non-vertebral fracture to the Fragility Fracture Network international congress. To increase knowledge of evidence-based falls prevention strategies at a local level, she has presented to the Southern Adelaide Local Health Network (SALHN) nursing leadership, SALHN falls committee (attended by wider Adelaide hospital staff) and SALHN research week. Two presentations have also been accepted for the Australian and New Zealand Falls Prevention Society Conference. Suzanne is guiding an ongoing analysis of a fall's prevention program in SALHN's subacute wards and has chaired a Falls CRE seminar session on preventing inpatient falls. Suzanne is actively engaged in establishing an online e-Community of Practice of aged care facility staff to improve evidence-based post-hip fracture recovery, including secondary falls prevention, to commence in early 2022.

### **Venisa Kwok PhD candidate update**

We applied to access the survey data in the Australian Longitudinal Study on Women's health (ALSWH) early this year and is working on the first project to compare if there are any generation difference in falls, injurious falls and physical activity participation in Australian women between two cohorts. I was able to disseminate part of the work at the Emerging Researchers in Ageing conference. Meanwhile, we have also started working on another project to examine if there are any differential impacts between frailty and different types of physical activity on falls and injurious falls while utilising the data in the ALSWH. Lastly, we got approval to access the linked health data and is planning the project about association between ongoing participation in physical activity from middle age and falls and injurious falls that involve care in emergency department and hospital admission.

### **Rik Dawson PhD candidate update**

The focus of Rik's PhD is the TOP UP Study - a physiotherapy led telehealth and exercise intervention to improve mobility in older people receiving aged care services: an effectiveness and implementation randomised controlled trial. Throughout the first year of his CRE Scholarship, Rik worked with his supervisors Professor Sherrington and Dr Pinheiro, and other CRE collaborators, Professor Naganathan and Dr Taylor, to develop the ethics application and trial protocol. The TOP UP Study received ethics approval from Concord Hospital HREC in May 2021. He has commenced recruitment and currently has 55 participants randomised and enjoying the intervention. Rik has not been able to obtain any other funding but is fortunate to have in-kind support from Whiddon, St Luke's, and Ashfield Baptist Homes who purchased the iPads and provide aged care staff support to enable the physiotherapy zoom assessments and weekly exercise supervision. Working with Professor Delbaere he will be using the StandingTall app in the study to enhance participant exercise adherence.

## Research updates from our collaborating Research Fellows

### Prof Kim Delbare

Prof Delbaere is a Senior Principal Research Scientist and Director of Innovation & Translation at the Falls, Balance & Injury Research Centre at Neuroscience Research Australia, and Professor at University of New South Wales, Sydney. Prof Delbaere's research has proven the efficacy of novel technology-driven physical activity interventions, thereby challenging outdated stereotypes of old age and suggesting that these approaches could help in enhancing health more broadly in older Australians. The StandingTall program is a progressive exercise application that offers a variety of balance, strength and mobility exercises in the home, without the need for supervision. A conclusive randomised controlled trial in 503 individuals aged 70+ over 2 years showed a 16% lower falls rate, and a 20% lower rate of injurious falls over 2-years in the intervention group compared to controls. Ongoing funded clinical trials are evaluating the efficacy/effectiveness of StandingTall on fall rates in older people at higher fall risk (N=518), in people with fear of falling (N=189), in First Nations people (N=200) and as the exercise rehabilitation component in stroke survivors (N=800). The StandingTall balance program is being tested as part of a fall prevention implementation in New South Wales, Victoria and Northern England (UK).

### Dr Daina Sturnieks

Dr Daina Sturnieks is a Senior Research Scientist at Neuroscience Research Australia and Senior Lecturer at UNSW Medicine and Health. She presented the results of a large randomised controlled trial of the smart±step home-based exergame training system for preventing falls in older people. This system was designed to target both cognitive and motor training related to balance control and fall risk with an enjoyable and engaging approach to exercise, thereby addressing adherence issues. An assessor blinded randomised controlled trial examined the effectiveness of the smart±step system, delivered either as cognitive-only training (seated computer training) or cognitive-motor training (standing and stepping on a wireless mat), on preventing falls in 769 community-dwelling people aged 65+ years, compared to a control group. Training participants were asked to undertake two hours of smart±step exergame training per week for 12 months. All reported falls monthly for 12 months. The rate of falls was significantly reduced in the motor-cognitive training group compared to control (IRR=0.74, 95%CI=0.56-0.98) and not significantly different between the cognitive training and control groups (IRR=0.86, 95%CI=0.65-1.12). Secondary analyses showed these effects were likely achieved through improved choice stepping reaction times. The smart±step system is now being trialled in hospital rehabilitation settings and aged care facilities across Australia.

### Dr Yoshi Okubo

Dr Yoshi Okubo at Falls, Balance and Injury Research Centre, NeuRA has been leading an innovative project to develop a virtual-to-reality fall prevention program in older adults at risk of falling. This program involves the task-and-context specificity i.e., training and educating older adults how to proactively identify and avoid hazards and destabilising situations that often lead to falls in daily life as well as how to recover balance when an unexpected event occurred (e.g., trips and slips). His team has analysed almost 1000 falls reported by over 600 community-dwelling older adults in a randomised controlled trial. The novel virtual-to-reality technology can accurately simulate the whole-body sensation of losing balance when a client's limb collided with a virtual hazard in a 3D immersive virtual environment (e.g., tripping on a cracked foot path). Their pilot experiment has demonstrated that the motor learning to avoid the virtual hazards while walking can be significantly enhanced by the sensation of balance loss (delivered by a treadmill belt acceleration) compared to no such sensory feedback. This novel technology will be further developed and tested to improve effectiveness of fall prevention programs in clinics, gyms, and aged care settings.

### **A/Prof Leanne Hassett**

Physical activity coaching for adults with mobility limitations is a randomised controlled trial (ComeBACK). Mobility limitation is common and often results from neurological and musculoskeletal health conditions, ageing and/or physical inactivity. In consultation with consumers, clinicians and policymakers, we have developed two affordable and scalable intervention packages designed to enhance physical activity for adults with self-reported mobility limitations. Both are based on behaviour change theories and involve tailored advice from physiotherapists. Currently we have randomised 335, 109 from health service and 226 from community referral strategies. For more information, please see our protocol paper.

<https://bmjopen.bmj.com/content/bmjopen/10/11/e034696.full.pdf>

### **Prof Anne Tiedemann**

Professor Tiedemann is a Principal Research Fellow at the Institute for Musculoskeletal Health, a research partnership between The University of Sydney and Sydney Local Health District. Associate Professor Tiedemann leads the Healthy Ageing theme within the Institute's Physical Activity, Ageing and Disability research stream.

Associate Professor Tiedemann's NHMRC-funded Successful AGEing (SAGE) yoga trial is testing the effectiveness and cost-effectiveness of a yoga-based exercise program compared to a seated yoga relaxation program on falls in people aged 60 year and over. The complete sample of 700 participants was recruited between October 2019 and October 2021. The intervention group participates in a 40-week, twice weekly group-based yoga program, now delivered online due to the COVID-19 pandemic restrictions. Participant follow-up and data collection will be complete by the end of 2022. So far, participants have enjoyed the yoga-based exercise program, and many have noted significant improvements in various physical and mental health outcomes, such as improved balance, strength, mental wellbeing and sleep.

## CRE-PFI 2021 Meetings and Events

- **CRE Launch Webinar**

The CRE PFI was officially launched on 26th March 2021.

Guest speaker included Hon Pru Goward who spoke about ageing, falls and exercise: and the policy changes needed. A copy of the recorded webinar.

Link: <https://www.youtube.com/embed/Vk2bXoXoYHU>.

- **CRE Executive meetings**

Attendees: Prof Sherrington, Prof Lord, Prof Crotty, Prof Bauman.

This meeting is scheduled every 2 months and designed to update the executive board members. The goal of this meeting is to make decisions, bring up and solve problems, align cross-functionally, and gain insights into the progress of the CRE-PFI projects. Held: February, April, May, July, September, November 2021.

- **Scientific meetings**

Attendees: All CIs, AIs, ECRs and students.

This meeting is scheduled every 2 months. The first half of this meeting is designed to update all CRE-PFI members on the general progress of the CRE. The second half of the meeting will see presentations from CRE members on their projects where others can provide feedback.

Held: June, August 2021.

- **CRE Planning Day meeting**

Attendees: All CRE-PFI members and other Mid-career Research collaborators.

Held annually to update everyone on the CRE PFI progress. Updates on projects and discuss new grant applications and projects for the upcoming year.

Held: 29<sup>th</sup> October 2021.

- **Early Career Researchers meetings (funded ECRs, students)**

These meetings are scheduled every 2 months. Current ECR and PhD students will give a quick update on the status of their project at the beginning of each meeting.

Held: March, April, June, August, December 2021.

- **Research Seminars**

Attendees: All CRE-PFI members and other collaborators.

These seminars are scheduled every two months and have been designed and initiated by our early career researchers on topics that interest them and designed to promote discussions and potentially collaborations. All seminars have been recorded and the link can be accessed on our website. Website: [crepreventfallsinjuries.org.au/](http://crepreventfallsinjuries.org.au/)

### **Five research seminars topics held in 2021.**

- Implementation studies (Bauman, Sherrington): 6th May 2021 (41 attended)
- Influencing policy (Tatz, Wilson): 26<sup>th</sup> May 2021 (51 attended)
- Inpatient falls prevention (Bierer, Bachelor): 28<sup>th</sup> July 2021 (112 attended)
- Getting media coverage (Dwyer, Timms): 29th September 2021 (42 attended)
- Driving change in practice (Close, Jennings): 24<sup>th</sup> November 2021 (48 attended)

## Funding awarded for CRE-PFI Projects

1. Women's Health Research Translation Network, referral to falls exercise from osteoporosis services. **Oliveira J.** Awarded \$15,000.
2. The Australia & New Zealand Musculoskeletal (ANZMUSC) Clinical Trials Network Seed Funding Research Scheme. **Oliveira J.** Awarded AU\$ 20,000.
3. Systematic review of selected physical activity interventions. **Pinheiro MB, Norris S, Howard K, Sherrington C, Tiedemann A, Bauman A, Ding M, Smith B, Bellew B.** *World Health Organization, Physical Activity Unit.* Timeframe: June 2021 to September 2021. Awarded \$18,340.
4. Enhancing transition from hospital to community-based exercise for patients with musculoskeletal disorders. **Pinheiro MB, Sherrington C, Hassett L, Richards B, Marabani M, Bauman A, Wood A, Needs C, Wakefield J, Walkley J, Coombs D, Menz F.** *2020 Grant in Aid, Arthritis Rheumatology Association.* Timeframe: January 2021 to December 2021. Awarded \$15,000.
5. Transitioning patients with musculoskeletal disorders from hospital to community-based exercise: a pilot hybrid type 2 implementation-effectiveness wait-list randomised trial. **Pinheiro MB, Sherrington C, Hassett L, Wood A, Richards B, Marabani M, Bauman A, Needs C, Wakefield J, Walkley J, Coombs D, Menz F.** *2020 Australian and New Zealand Musculoskeletal Clinical Trials Network (ANZMUSC) Seeding Grants.* Timeframe: November 2020 to October 2021. Awarded \$10,000.

## CRE-PFI Presentations



### Australian New Zealand Falls Prevention Society conference , 1-3 Dec 2021

Caldwell P, **Sherrington C**, Norris S, **Howard K**, Tiedemann A, Wang B, Michaleff Z, Fairhall N, Ferguson S, Mayo E, **Pinheiro M**. Economic evaluations of exercise-based fall-prevention programmes in the community: a WHO-commissioned review (Oral).

Chantanachaia T, Sturnieks D, **Lord SR**, Payne N, Webster L and **Taylor MA**. Fall risk factors in people with cognitive impairment: systematic review and meta-analysis, (e-poster).

**Dawson R, Pinheiro M, Taylor M, Naganathan V, Sherrington C**. TOP UP Protocol Abstract (Oral).

**Dyer SM**, May N, Ross T, Liu E, Cations M, Magaziner J, **Crotty M**. Recovery of function following non-hip non-vertebral fragility fracture: a systematic review (Oral).

**Dyer SM**, Shah D, Shulver W, Bajger B, Harvey G and **Crotty M**. An eCommunity of Practice to improve hip fracture care in aged care (e-poster).

**Kwok WS, Byles JE, Pinheiro M, Oliveira J, Dolja-Gore X, Sherrington C**. Are there any differences in falls, injurious falls and physical activity participation in Australian women between two different generations? (Oral).

**O'Rourke S and Sherrington C**. NHMRC Centre of Research Excellence in Prevention of Fall-related Injuries 2021-2025: overview (e-poster).

**Taylor ME**, Delbaere K, Hewitt J, Mak A. Sunbeam program prevents falls in people with cognitive impairment living in RACF (Oral).

Wang B, **Sherrington C**, Tiedemann A, Fairhall N, **Kwok WS**, Michaleff ZA, Wallbank G, **Pinheiro M**. Differential effectiveness of falls prevention exercise interventions according to falls risk (Oral).

### Charles Perkins Symposium, 16<sup>th</sup> September 2021

**Dawson R, Pinheiro M, Taylor M, Naganathan V and Sherrington C**. TOP UP Protocol Abstract. 7<sup>th</sup> Annual CPC EMCR Symposium (Oral).

## Australian Association of Gerontology , 9-12<sup>th</sup> November 2021.

Dawson R, Pinheiro M, Taylor M, Naganathan V and Sherrington C. TOP UP Protocol (Poster).



Kwok WS, Byles JE, Pinheiro M, Oliveira J, Dolja-Gore X, Sherrington C. Falls and physical activity in Australian older women. Emerging Researchers in Ageing, (Oral).

## Emerging Researchers in Ageing, November 4 2021.

Kwok WS, Byles JE, Pinheiro M, Oliveira J, Dolja-Gore X, Sherrington C.

Falls and physical activity in Australian older women., Australia (Oral).



## ISBNPA Xchange Initiative , June 8-10 2021

Pinheiro M, Oliveira J, Kwok WS, Taylor J, Tiedemann A, Bauman A, Bull F, Sherrington C.

Cost-effectiveness of physical activity programmes and services for older adults: a scoping review (Oral)



## Fragility Fracture Network, 9th FFN Global Congress, September 28-30 2021

Dyer SM, May N, Ross T, Liu E, Cations M, Magaziner J, Crotty M. Recovery of function following non-hip non-vertebral fragility fracture: a systematic review. (Poster)



## CRE-PFI Collaborations

### What is CERI?

The Collaboration for Enhanced Research Impact (CERI) is a joint initiative between The Australian Prevention Partnership Centre (Prevention Centre) and Centres of Research Excellence (CREs) studying topics related to the prevention of chronic disease. CERI was established to enhance the profile and impact of chronic disease prevention research in Australia. We are working together to find alignment in the policy and practice implications of our work and to develop shared communications across our various projects and participating centres. CERI launched as a 12-month pilot in June 2020, comprising the Prevention Centre and four affiliated CREs. Further CREs joined the collaboration from June 2021. Across the Prevention Centre and the CREs, CERI now represents more than 500 prevention researchers.



### CERI Mission

To enhance the impact, profile and value-add of prevention research in Australia through expanded multi-centre collaboration and networking.

## Relevant 2021 Publications from CRE-PFI Investigators

Chantanachai T, Sturnieks DL, **Lord SR**, ...**Taylor ME**. (2021). Risk factors for falls in older people with cognitive impairment living in the community: Systematic review and meta-analysis. *Ageing Res Rev*; 71:101452.

Delbaere K, **Sherrington C**, **Lord SR**, (2021). 'Fall prevention interventions', in Marcus and Feldman's Osteoporosis, Elsevier, pp. 1627 - 1647, <http://dx.doi.org/10.1016/b978-0-12-813073-5.00068-x>

Delbare K, **Lord SR**, **Close JC**, et al. (2021). E-health "StandingTall" balance training for fall prevention in older people: results of a two-year randomised controlled trial. *BMJ*;373.

**Dolja-Gore X**, **Byles JE**, Tavener MA, Chojenta CL, Majeed T, Nair BR, Mishra GD. (2021) 'Estimating the effect of health assessments on mortality, physical functioning and health care utilisation for women aged 75 years and older', *PLoS ONE*, 16.

**Dyer SM**, Perracini MR, Smith T, Fairhall N, **Cameron ID**, **Sherrington C**. (2021). Rehabilitation following hip fracture. *Orthogeriatrics*, 183-222.

Hairu R, **Close JCT**, **Lord SR**, ...**Taylor ME (2021)**. The association between white matter hyperintensity volume and cognitive/physical decline in older people with dementia: A one-year longitudinal study. *Aging Ment Health*1:1-8.

Hairu R, **Close JCT**, **Lord SR**, ...**Taylor, ME (2021)**. The association between white matter hyperintensity volume and gait performance under single and dual task conditions in older people with dementia: A cross-sectional study. *Arch Gerontol Geriatr.*;95:104427

Handoll HG, **Cameron ID**, Mak JCS, Panagoda CE, Finnegan TP (2021). Multidisciplinary rehabilitation for older people with hip fractures. *Cochrane Database of Systematic Reviews*, Issue 11. Art. No.: CD007125. DOI: 10.1002/14651858.CD007125.pub3.

Hassett L, Shields N., Cole J, Owen K., **Sherrington, C**. (2021). Comparisons of leisure-time physical activity participation by adults with and without a disability: Results of an Australian cross-sectional national survey. *BMJ Open Sport & Exercise Medicine*, 7(1).

Haynes A, Gilchrist H, **Oliveira JS**, Tiedemann A. Using realist evaluation to understand process outcomes in a COVID-19-impacted yoga intervention trial: a worked example. *International Journal of Environmental Research and Public Health* 2021;18(17):9065.

Inacio MC, Moldovan, Whitehead C, Sluggett JK, **Crotty M**, Corlis M. (2021) The risk of fall-related hospitalisations at entry into permanent residential aged care *BMC geriatrics* 21 (1), 1-13.

Inacio M, Jorissen RN, **Crotty M et al.** (2021) Predictors of short-term hospitalization and emergency department presentations in aged care. *Journal of the American Geriatrics Society*. 69 (11), 3142-3156.

Jang H, Lovarini M, Clemson L, Willis K, **Lord SR, Sherrington C.** (2021). Fall prevention programs for culturally and linguistically diverse groups: program provider perspectives. *Ethnicity and Health*, 26(2), 1-19.

Khalatbari Soltani S, Stanaway F, **Sherrington C**, Blyth F, **Naganathan V**, Handelsman D, **Seibel MJ**, Waite L, Le Couteur D, Cumming R. (2021). The Prospective Association Between Socioeconomic Status and Falls Among Community Dwelling Older Men. *Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 76(10), 1821-1828.

Khoo I, **Close, JCT, Lord, SR**, Delbaere K, **Taylor ME.** (2021). Relationship between Depressive Symptoms and Cognitive, Psychological, and Physical Performance in Community-Dwelling Older People with Cognitive Impairment. *Dement Geriatr Cogn Disord*. doi 10.1159/000520853.

Liu E, Killington M, **Cameron ID**, Li R, Kurrle S, **Crotty M.** (2021). Life expectancy of older people living in aged care facilities after a hip fracture. *Scientific Reports* 11 (1), 1-9.

**Lord SR**, Purcell K, Clemson L, Tiedemann A, **Sherrington C.** (2021). Fall prevention behaviour after participation in the Stepping on program: A pre-post study. *Public Health Research and Practice*, 31(1).

**Lord SR, Sherrington C, Naganathan V.** (2021), 'Bringing It All Together', in *Falls in Older People*, Cambridge University Press, pp. 469 – 480.

**Lord SR, Menant JC.** (2021). Falls, In Halter JB, Ouslander JG, Studenski S, Asthana S, High KP, Supiano MA and Ritchie CS (Eds) *Hazzard's Geriatric Medicine and Gerontology*, 8<sup>th</sup> Edition. McGraw Hill.

**Lord SR, Sherrington C, Naganathan V.** (2021). 'The Relative Importance of Fall Risk Factors: Analysis and Summary', in *Falls in Older People*, Cambridge University Press, pp. 237 - 248,

Mesinovic, J, Scott D, **Seibel MJ**, Cumming R, **Naganathan V**, Blyth F, Le Couteur D, Waite L, Handelsman D, Hirani V. (2021). Risk factors for incident falls and fractures in older men with and without type 2 diabetes mellitus: The concord health and ageing in men project. *Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, 76(6), 1090-1100.

Mitchell R, Fajardo Pulido D, Ryder T, Norton G, Brodaty H, Draper B, **Close J**, Rapport F, Lystad R, **Harris I, Sherrington C, Cameron I**, et al. (2021). Access to rehabilitation services for older adults living with dementia or in a residential aged care facility following a hip fracture: healthcare professionals views. *Disability and Rehabilitation*, 43(6), 834-845.

Mitchell R, Ting HP, Draper B, **Close JCT**, Harvey L, Brodaty H, Driscoll TR (2021). Frailty and risk of re-hospitalisation and mortality for aged care residents following a fall injury hospitalisation. *Australasian journal on ageing* 40 (1), e44-e53

Montero-Odasso M, van der Velde N, Alexander N, Becker C, Blain H, Camicioli R, **Close J**, Duan L, Duque G, Ganz D, **Sherrington C**, et al. (2021). New horizons in falls prevention and management for older adults: a global initiative. *Age and Ageing*, 50(5), 1499-1507.

Montero-Odasso MM, Kamkar N, F Pieruccini-Faria F, **Cameron ID, Sherrington C, Lord SR, Close J.** (2021). Evaluation of Clinical Practice Guidelines on Fall Prevention and Management for Older Adults: A Systematic Review. *JAMA network open* 4 (12), e2138911-e2138911.

Morris M, **Haines T**, Hill A, **Cameron I**, Jones C, Jazayeri D, Mitra B, Kiegaldie, D, Shorr R, McPhail S. (2021). Divesting from a Scored Hospital Fall Risk Assessment Tool (FRAT): A Cluster Randomized Non-Inferiority Trial. *Journal of the American Geriatrics Society*, 69(9), 2598-2604.

Ng, C, Scott D, **Seibel MJ**, Cumming R, **Naganathan V**, Blyth F, Le Couteur D, Waite L, Handelsman D, Hirani V. (2021). Higher-Impact Physical Activity Is Associated with Maintenance of Bone Mineral Density But Not Reduced Incident Falls or Fractures in Older Men: The Concord Health and Aging in Men Project. *Journal of Bone and Mineral Research*, 36(4), 662-672.

Oberai T, Woodman R, Laver K, **Crotty M**, Kerkhoffs G, Jaarsma R. (2021). Is delirium associated with negative outcomes in older patients with hip fracture: analysis of the 4904 patients 2017–2018 from the Australian and New Zealand hip fracture registry. *ANZ Journal of Surgery*.

**Oliveira JS, Sherrington C, Lord SR**, Sesto R, Youkhana S, Camara GC, Grunseit AC, **Bauman AE**, Anstey KJ, Shepherd RB, Tiedemann A. (2021). Yoga-based exercise to prevent falls in community-dwelling people aged 60 years and over: study protocol for the Successful AGEing (SAGE) yoga randomised controlled trial. *BMJ Open Sport and Exercise Medicine* 2020;6:e000878.

Paul S, Canning C, **Sherrington C**, Lee D, Bampton J, Howard K (2021). People with Parkinson's disease are more willing to do additional exercise if the exercise program has specific attributes: a discrete choice experiment. *Journal of Physiotherapy*, 67(1), 49-55.

Paul S, Li Q, Harvey L, Carroll T, Priddis A, Tiedemann A, Clemson L, **Lord SR, Close J, Sherrington C.** (2021). Scale-up of the Stepping On fall prevention program among older adults in NSW: program reach and fall-related health service use. *Health Promotion Journal of Australia*, 32(Suppl 2), 391-398.

Pelicioni PHS, **Menant JC**, Henderson EJ, Latt MD, Brodie MA, **Lord SR** *Mild and marked executive dysfunction and falls in people with Parkinson's disease.* *Brazilian Journal of Physical Therapy* (2021) 25 (4) 437-43.

**Pinheiro MB, Oliveira JS**, Tiedemann A, Hassett L, Costa NC, Baldwin JN, Gilchrist H, Wang B, Kwok W, Albuquerque BS, Pivotto LR, Carvalho-Silva APMC, Sharma S, Gilbert S, **Bauman A, Sherrington C.** Physical activity programmes and services for older adults: a review of effectiveness from primary studies. A report commissioned by the WHO Physical Activity Unit 2021.

**Pinheiro MB, Sherrington C, Howard K**, Caldwell P, Tiedemann A, Wang B, **Oliveira JS**, Michaleff Z, Ferguson S, Mayo E, Fairhall N, **Bauman A**, Norris S. A systematic review of economic evaluations of fall prevention exercise programs. A report commissioned by the WHO Physical Activity Unit. Dec 2021.

**Pinheiro MB, Sherrington C, Ding D, Smith B, Bellew W, Howard K, Albuquerque BS, Tiedemann A, Bauman A, Norris S.** Systematic review of economic evaluations of physical activity mass media campaigns. A report commissioned by the WHO Physical Activity Unit. Dec 2021.

Robins LM, Lee D, Bell JS, Srikanth V, Mohler R, Hill KD, **Haines TP.** (2021). Cognitive Dissonance of Students Between Falls Prevention Evidence and Strategies. *International Journal of Environmental Research and Public Health.* 18, 7, 20 p., 3639.

Ryder T, **Close J, Harris I, Cameron I, Seymour H, Armstrong E, Bell J, Hurring S, Mitchell R.** (2021). Patient and hospital factors influencing discharge destination following hip fracture. *Australasian Journal on Ageing,* 40(3), e234-e243.

Shebeshi DS, **Dolja-Gore X, Byles J,** (2021). 'Validation of hospital frailty risk score to predict hospital use in older people: Evidence from the Australian Longitudinal Study on Women's Health', *Archives of Gerontology and Geriatrics,* 92.

**Souza De Oliveira J, Sherrington C,** Rissel C, Merom D, Wickham J, **Lord SR,** Simpson J, Tiedemann A. (2021). Statistical analysis plan for the coaching for healthy AGEing trial: a cluster-randomised controlled trial to enhance physical activity and prevent falls in community-dwelling older people. *Brazilian Journal of Physical Therapy,* 25(6), 908-914.

Stamatakis E, Huang B, Maher C, Stathi A, Dempsey P, Johnson N, Holtermann A, Chau J, **Sherrington C.,** et al. (2021). Untapping the Health Enhancing Potential of Vigorous Intermittent Lifestyle Physical Activity: Rationale, Scoping Review, 4-Pillar Research Framework. *Sports Medicine,* 51(1).

Taylor J, Walsh S, **Kwok W, De Barros Pinheiro, M, Souza De Oliveira J, Hassett L., Bauman A, Bull F, Tiedemann A, Sherrington C.** (2021). A scoping review of physical activity interventions for older adults. *International Journal of Behavioural Nutrition and Physical Activity,* 18(1), 82.

**Taylor ME,** Wesson J, **Sherrington C,** Hill KD, Kurrle S, **O'Rourke SD, Lord SR, Close JCT** (2021). Tailored exercise and home hazard reduction program for fall prevention in older people with cognitive impairment: the i-FOCIS randomized controlled trial. *The Journals of Gerontology: Series A* 76 (4), 655-665.

**Taylor ME,** Toots A, **Lord SR,** Payne N and **Close JCT** (2021b). Cognitive Domain Associations with Balance Performance in Community-Dwelling Older People with Cognitive Impairment. *J Alzheimers Dis,* 81, 833-841. doi: 10.3233/JAD-201325.

**Taylor ME,** Whitney J. Cognition and falls. In Lord SR, Sherrington C, Naganathan V, (Eds) (2021). *Falls in Older People.* Cambridge University Press.

Tiedemann A, Sturnieks D, Hill A, Lovitt L, Clemson L, **Lord S, Sherrington C.** (2021). Impact of a fall prevention education program for health and exercise professionals: A randomised controlled trial. *Public Health Research and Practice,* 31(3).

**Taylor ME, Todd C, O'Rourke S, Clemson LM, Close JC, Lord SR, Lung T, (2021)** Implementation of the StandingTall programme to prevent falls in older people: a process evaluation protocol. *BMJ open* 11 (7), e048395.

van Schooten KS, **Taylor ME, Close JCT, Lord SR, Davis JC, Paul,SS, Canning CG,(2021)**. Sensorimotor, cognitive, and affective functions contribute to the prediction of falls in old age and neurologic disorders: an observational study. *Archives of Physical Medicine and Rehabilitation* 102 (5), 874-880.

West K, Purcell K, Haynes A, Taylor J, Hassett L, **Sherrington C.** (2021). "People Associate Us with Movement so It's an Awesome Opportunity": Perspectives from Physiotherapists on Promoting Physical Activity, Exercise and Sport. *International Journal of Environmental Research and Public Health*, 18(6), 1-14.

Zhu S, **Sherrington C, Jennings M, Brady, B, De Barros Pinheiro M, Dennis S, Christie L, Sidhu B, Haynes A, Greaves C, Hassett, L.** (2021). Current practice of physical activity counselling within physiotherapy usual care and influences on its use: A cross sectional survey. *International Journal of Environmental Research and Public Health*, 18(9), 4762.



## CRE-PFI Contact Information

Twitter: [@CRE\\_PFI](https://twitter.com/CRE_PFI)

Facebook: <https://www.facebook.com/CREPFI>

Website: [crepreventfallsinjuries.org.au/](https://crepreventfallsinjuries.org.au/)

Email: [cre.pfi@sydney.edu.au](mailto:cre.pfi@sydney.edu.au)

