

The HOPE Foundation for Research on Ageing

Preparing New Zealand for an Ageing Future

From the Chair

Leap year! Enjoy the extra day. I do not need to encourage women to take the lead this year as you are all out there doing this every day in your lives. Keep it up.

This year, the HOPE Foundation will focus on expanding our sponsorship, income and membership to meet the goals of our Charity which are to:

Lead and resource the funding of people doing research on ageing

- We have funded 142 PhD/Masters scholarships, 42 summer students and various individual pieces of work like training for the Ronnie Gardiner Method, a multisensory exercise programme to improve mobility, neurological and rehabilitation outcomes. These are great achievements but there are more questions out there, especially during times of political and policy changes.

Disseminate research-based information about the effects of ageing on individuals and society

- Our Knowledge Exchange is in April. We support the New Zealand Association of Gerontology with their scientific meetings. Our scholars are presenting their work nationally and globally.

Develop the pool of researchers in New Zealand

- I am proud of how the Hope Foundation has been able to support this growth. We have purposefully focussed on people starting their research journey (not necessarily just younger researchers!) to build a skilled base of people and support the established research hubs. Collaboration is also key. The numbers presenting at meetings and working in positions of influence have blossomed. However, it is still a very fragile space as evidenced by the loss of the two Professors of Geriatric Medicine Chairs. These positions took years to achieve and seemingly minutes to lose.

Influence decision-makers to improve the quality of life for ageing New Zealanders

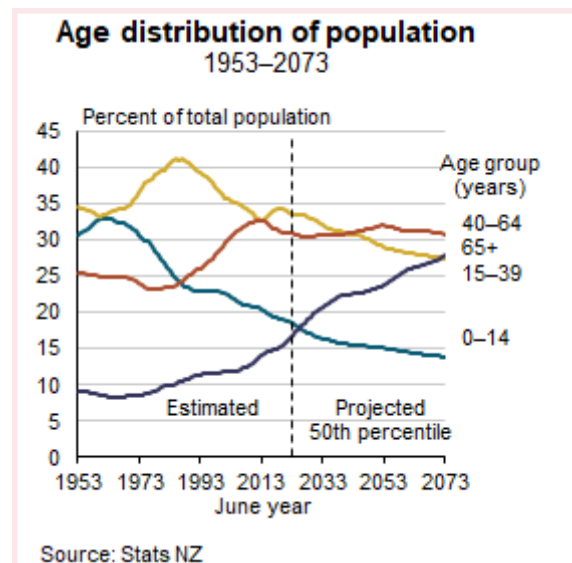
Dr Maree Todd
Geriatrician
Chair of the Foundation



- More to do here but we try!

We could not have achieved this without the dedicated support of our various sponsors, donors and volunteers. Thank you all so much. We value your ongoing support and anything you can do to encourage others to help.

There is more to do as the population of New Zealand ages. In 2022 there were 842,000 people over 65 years in New Zealand, by 2027 it is projected to be over 1 million and rapidly growing. To me this is one of the greatest successes of humankind (think of the alternative), but we will need to plan well to maximise the opportunities this brings for older people and the rest of society.



(Continued on page 2)

HOPE Foundation Scholarships

23/24 Summer Scholarships

These scholarships support high achieving University students to do an ageing focused research project over the 10-week summer break. The aim is to achieve high quality worthwhile research and enable these students to gain valuable skills by working with experienced researchers, who supervise these projects. This year we awarded one Summer Scholarship.

Rosa Griffiths : How satisfied are frail older adults with living in retirement villages?

MBChB, University of Auckland, Main supervisor: Dr Katherine Bloomfield



Older adults enter retirement villages for a multitude of reasons. Some choose retirement villages for a social and secure environment, while others move into retirement villages in response to increasing health needs.

I was lucky to join a team who had already published valuable research on older adults in retirement villages. This research shows many people in retirement villages are experiencing frailty: a state of increased vulnerability to stressors and adverse health outcomes. A Frailty Index was developed to measure frailty in an objective way.

My summer project used the data collected from a wider study: Older People in Retirement Villages. I

compared the satisfaction levels of different aspects of retirement village living between frail and non-frail older adults.

As a third-year medical student, I am passionate about this research and older adult health. My grandparents and their health struggles have inspired me to pursue medicine.

Thank you to the HOPE Foundation for this amazing opportunity and I extend my gratitude to my supervisors, Dr. Katherine Bloomfield, Dr. Zhenqiang Wu and everyone involved in the Retirement Villages study.

Outcomes from Rosa's work was presented at the HOPE Foundation Quiz Fundraiser and are on the Research Findings section of the website— <https://hopefoundation.org.nz/scholars/research-findings/>

References for Older People in Retirement Villages

Bloomfield, K., Wu, Z., Tatton, A., Calvert, C., Peel, N., Hubbard, R., Jamieson, H., Hikaka, J., Boyd, M., Bramley, D., & Connolly, M. J. (2021). An interRAI-derived frailty index is associated with prior hospitalisations in older adults residing in retirement villages. *Australasian Journal on Ageing*, 40(1), 66–71. <https://doi.org/10.1111/ajag.12863>

Peri, K., Broad, J. B., Hikaka, J., Boyd, M., Bloomfield, K., Wu, Z., Calvert, C., Tatton, A., Higgins, A. M., Bramley, D., & Connolly, M. J. (2020). Study protocol: Older people in retirement villages. A survey and randomised trial of a multi-disciplinary invention designed to avoid adverse outcomes. *BMC Geriatrics*, 20(1), 247–247. <https://doi.org/10.1186/s12877-020-01640-6>

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So, what can you do to help?

- Join the HOPE Foundation as a Friend to keep connected (and join up others).
- Consider donating regularly.
- Please consider leaving us a bequest (always good to regularly review Wills, Power of Attorney and Advance Care Plans to keep them up to date).
- Consider donating a living bequest and see the benefits of your gift.
- Offer specific assistance by donating skills - marketing, fundraising, auditing costs, website design, newsletter costs.

Feel free to talk to us about how we might work together for mutual benefit. Thank you all again

Dr Maree Todd (Chair)

Thanks to our Sponsors

The Douglas Goodfellow Charitable Trust

Agnes Hope Day Charitable Trust

Bollard Charitable Trust

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BH and SW Picot Charitable Trust

The Jogia Charitable Trust

Friends of the HOPE Foundation

HOPE Foundation Scholarships

2024 Hope Foundation Scholars

Through the generosity of our sponsors and the Friends of HOPE, we awarded nine HOPE scholarships this year. Each HOPE scholar receives \$6,000 to support their work on an ageing related topic of research.

Five of the nine scholars (Josephine Dixon, Ben Krinkel, Conor Nelson, Christine Roseveare and Tara Sani) are scholars from 2023 and have been written up in past Newsletters and their projects are briefed online (<https://hopefoundation.org.nz/scholars>). Below we welcome our new scholars and their projects.

Thomas Bird : Structural and functional characterisation of the FAM171 family of neuronal proteins

PhD candidate, Biological Science, Victoria University, Main supervisor: Associate Professor Davide Comoletti



An ageing population is a positive for individuals in New Zealand who enjoy longer lives together, however it entails an increase in the prevalence of neurodegenerative diseases. The rate of Alzheimer's Disease (AD) is predicted to double by 2050.

AD is a complex disease primarily characterised by the formation of protein aggregates within the brain. This dysregulated protein behaviour causes damage to the neuronal networks in the brain, resulting in damage to brain tissue and the clinical presentation of dementia. The dysregulation of disease signalling pathways leading to AD are still not fully understood.

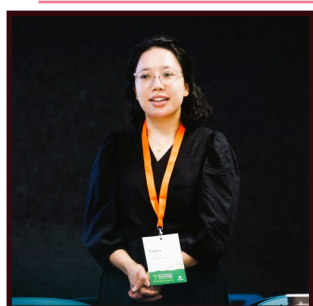
FAM171 A2 is a neuronal receptor that appears to be a potential regulator of protein aggregation in mouse models of AD. My PhD research is focused on characterising the structure and function of the three-member FAM171 family of proteins using biochemical and biophysical techniques.

So far I have found these proteins to interact with

each other and themselves with high affinities. Efforts to understand the atomic structure of these proteins, alone and when in a complex with each other, have been successful and we are beginning to understand several details of their structures.

The knowledge gained from my research, as well as in vivo research from our collaborator at the Leuven Center for Brain & Disease Research, Belgium, shall hopefully provide a better understanding of the role of FAM171 proteins in AD. This will provide new avenues for understanding the progression of AD and potential therapeutic development.

I am grateful to receive this award. It is reassuring my research is a worthwhile investment. Given the high cost of living at the moment, this extra money will also relieve a lot of stress financially and allow me to be fully focussed on my research and completing my PhD this year.



Rubina Bogati : Later life work decisions of older Asian workers in New Zealand

PhD candidate, Nursing, University of Auckland, Main supervisor: Professor Vanessa Burholt

New Zealand (NZ) has an ageing workforce due to an ageing population and less

working-aged people, thus increasing workforce involvement of older people has been promoted for economic sustainability. Simultaneously, the reliance on migrants to fill the gap in the workforce has increased the diversity of the population and the workforce. Asian countries are top contributors to NZ's net migration gains and Asian people may be the second-largest ethnic group in NZ by 2043. More older Asian people will participate in the workforce in future, but minimal research has been done to understand this group of workers.

Research has identified that the decision to work in later life is driven by older people's need or their choice to work, particularly if their health, social and workplace structure supports their working ability. Some life-course factors, such as wealth, social, education, and sociocultural differences between ethnic groups can vary and shape their decision to work in later life.

For older Asian people, what keeps them in the workforce and expedites their retirement is under-researched. This lack of research leaves unanswered questions regarding their participation, motivations, barriers, cultural influences, necessities

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HOPE Foundation Scholarships

Chunxu Chen : Organisational support for older registered nurses' continuation of practice in inpatient hospital settings

PhD candidate, Nursing, Auckland University of Technology, Main supervisor: Dr Kay Shannon

The nursing workforce is ageing, and this demographic shift has significant implications for the healthcare system. Older nurses bring a wealth of experience and knowledge to the workforce, however, research conducted internationally and locally suggests that workplace ageism can be a significant barrier to the continuation of practice for older nurses. Workplace ageism refers to discriminatory behaviours or attitudes towards older workers, which can negatively affect their employment opportunities, job satisfaction and wellbeing. It could also hinder older nurses' access to organisational support, such as opportunities for professional development, flexible work arrangements and supportive leadership.

The purpose of this study is to explore older

registered nurses' and organisational representatives' perceptions of organisational support for older registered nurses' continuation of practice in inpatient hospital settings. This study will contribute to the understanding of organisational support for older registered nurses in their work environment and how it affects their decision to continue practicing in inpatient hospital settings in the New Zealand context.

Recommendations will be made to Te Whatu Ora-Health New Zealand on strategies for supporting older registered nurses to remain in the workforce and ways to address workplace ageism in their practice settings.



Mathew Shuen : Age-related changes to nuclear pore complex proteins in human myocardium

MBChB/PhD candidate, Physiology, University of Otago, Main supervisor: Associate Professor Phil Sheard

My name is Mathew Shuen. I am a MBChB/PhD student in the department of physiology at the

University of Otago.

Age-related heart disease is a leading cause of death and loss of independence as we get older. My research is aimed at improving our understanding of fundamental age-related changes of the heart. Specifically, the key proteins in the nucleus of heart muscle cells. These proteins, called nucleoporins, are not replaced as cells age and thus can be damaged or lost with time. Hence, they can lose their ability to help the nucleus communicate with the rest of the cell, ultimately leading to cell dysfunction or death. This is

especially important in heart muscle cells, as these are generally not renewed throughout a person's life, meaning loss or damage to these proteins occurs over an entire lifetime.

To study these proteins, I am using fluorescence immunohistochemistry to detect, and measure selected nucleoporins in heart muscle across a range of ages, using generously donated human tissue from the HeartOtago tissue bank. This work is based on previous findings in the Sheard laboratory studying nucleoporins in motor neurons of mice, which similarly are not renewed as we age. Our hope is that this work could one day lead to the development of interventions directly targeting these underlying causes of the ageing heart.

(Continued from page 3)

and choices of working in later life.

My research aims to understand the later-life work decisions of older Asian workers in NZ. I am a PhD candidate at the School of Nursing, University of Auckland. I have a nursing background. I am sincerely grateful for the HOPE Foundation scholarship awarded for my studies. This opportunity will help further ageing research and support my development as an aspiring ageing researcher.

To subscribe to our online newsletters and updates, visit our website - <https://hopefoundation.org.nz>

Scroll down and on the right hand side there is a link to sign up to the HOPE Foundation newsletters

Research Findings

Providing scholarships allows the students to devote more time to their research. It removes the financial stress surrounded and allows career development opportunities which may not otherwise be available if the student is required to work. 2023 was a year of successes, inspiring events and motivation.

Research outcomes

New Zealand Association of Gerontology (NZAG) Conference

Current and recent HOPE scholars attended the NZAG conference in September at University of Auckland. The HOPE Foundation Board supported this conference and sold 'My Crazy Grandma' books.



HOPE Board Members, Jenny and Ngaire crew the desk at the NZAG conference

The NZAG conference was a great opportunity for scholars to connect with each other. Posters were presented by **Tara Sani** and **Christine Roseveare**. Christine won the overall poster prize for the conference.



Past, present and future scholars came together at the NZAG conference

Other successes

Ben Krinkel won the Oxford Poster Prize at the International Union of Crystallography 2023 Conference in Melbourne.

Celine Camon was awarded the Jean Hailes Memorial Prize for the best free communication presentation at the Australasian Menopause Society Conference in Queenstown. Currently, Celine is at the University of California on a research exchange programme.

Eva Bonning attended the Society for Applied Research in Memory and Cognition Conference in Nagoya, Japan.

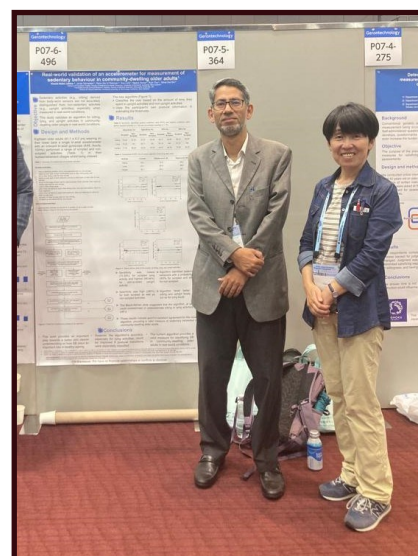
Khalid Abdul Jabbar presented a poster at IAGG Asia/Oceania Regional Congress 2023 held in Yokohama, Japan.

At this same conference **Keiko Oda** gave an oral presentation titled "Integrating oral care into home care nursing practice". Keiko also submitted her PhD thesis in 2023.

Josie Dixon presented her work at the International Federation of Automated Control World Congress in Japan and she hopes to return to France (visited early 2023) to explore creating her own LEDs for her project.

Conor Nelson attended the 3-week Australasian Course in Advance Neuroscience in Melbourne. The course was run by leading neuroscientists from around the globe and was only available to 12 PhD and post-doctoral students from Australasia.

Keep up-to-date at the Research Findings section of the website - <https://hopefoundation.org.nz/scholars/research-findings/>



HOPE Scholars Khalid Abdul Jabbar and Keiko Oda attend the IAGG Asia/Oceania Regional Congress 2023

Research Findings

Recent research publications from HOPE scholars

Abdul Jabbar K, Mc Ardle R, Lord S, Kerse N, Del Din S, Teh R. Physical activity in community-dwelling older adults: Which real-world accelerometry measures are robust? A systematic review. 2023. Sensors 23(17) doi: 10.3390/s23177615

Abdul Jabbar K, Sarvestan J, Zia Ur Rehman R, Lord S, Kerse N, Teh R, Del Din S. Validation of an algorithm for measurement of sedentary behaviour in community-dwelling older adults. 2023. Sensors 23 (10) doi: 10.3390/s23104605

Oda K, Bakri NN, Majeed S, Ferguson CA, Boyd M, Smith M, Bartlett S, Holden R, Thomson WM, Parsons J. Improving nursing oral care practice for care-dependent older adults through interprofessional collaboration: A study protocol. 2023. Kaitiaki Nursing Research 14(1) 50-57

Oda K, Majeed S, Parsons J, Boyd M, Smith M. Putting the mouth into the head-to-toe assessment: Nursing oral health assessment training with an oral health therapist. 2023. Journal of Nursing Education 62(7), 399-402. doi: 10.3928/01484834-20230509-04

Roseveare C, Breheny M, Mansvelt J, Murray L, Wilkie M, Gates MC. Companion animal fostering as health promotion: A literature review. 2023. International Journal of Environmental Research and Public Health 20(13), 6199. doi.org/10.3390/ijerph20136199

The Knowledge Exchange - 12 April

Friday 12 April 2024 at Room 501-110, School of Medicine, 85 Park Rd,
Grafton, Auckland.

The Knowledge Exchange is an opportunity for emerging researchers (from any discipline relating to ageing) to:

- present their research work.
- hear from leading New Zealand researchers in the field of ageing
- network and consider collaborations across disciplines
- be inspired and share knowledge.

Students, Masters/PhD researchers, Advanced Trainees, Academics, anyone interested in the field of ageing research should attend.

Call for abstracts

Closing date for abstracts **31 March 2024**

Closing date for registration **2 April 2024**

The format of this Knowledge Exchange is different to most conferences - the Knowledge Exchange aims to share, inform, collaborate and encourage our young researchers into Gerontology Research in its widest sense.

We encourage you to submit an abstract in the following areas:

1. Established research groups / senior researchers (15 minutes)
2. Specific gerontology research results

3. Research ideas

For further information, to register and submit an abstract visit our website : <https://hopefoundation.org.nz/events/knowledge-exchange-2024/>

Suitable for general public,
academics, clinical practitioners,
researchers, students and everyone
else

No Cost - Lunch, morning and
afternoon tea provided.

- ~ chance to see what is happening in older adults
- ~ connection with other researchers in the same and wider fields
- ~ talking and learning about research beyond mine
- ~ refreshing for retired GP
- ~ informal environment
- ~ Feedback from previous Knowledge Exchange Days



Friends of the HOPE Foundation

Social connection and belonging is very important in older people and the Friends of HOPE is an opportunity for connection. They are friends and a committed team to deliver high quality fundraising events for the HOPE Foundation. Their contribution to funding our scholarships is so much appreciated – thank you Friends.

The Friends utilise a variety of skills such as organising, flora arranging, hosting amazing afternoon teas, contacts with interesting people, ideas and many more. Please contact karen@hopefoundation.org.nz if you can contribute and would like to belong. No one is too young or too old to help make a difference.

You can read write ups of previous Friends of HOPE events on our website (hopefoundation.org.nz/events/). The events range from our recent QuizTime to Movie afternoons, to A



The Friends of HOPE at the planning meeting for the QuizTime fundraiser

magical night in Vienna to interesting Author talks (including crazy chefs).

Quiz Time fundraiser

10th March 2024, Danish House



I had never heard about the 'tangled web we weave', however other people in the room all broke out into a chant to complete the line of the poem. Thanks to Paul Bushnell's hypoglossal nerve, our quiz master took us smoothly through five rounds of questions. The neural machinery was churning when Paul delivered the 'Health and the Body' round of which the doctors in the room scored superbly.



The winning team, All Sorts, scored 36 points but close on their heels were three other teams sitting on 35 points.

Rosa Griffiths spoke about her summer studentship question - "How satisfied are frail older adults with living in retirement villages?". Rosa's talk was of great interest to the audience and is available online hopefoundation.org.nz/scholars/research-findings/



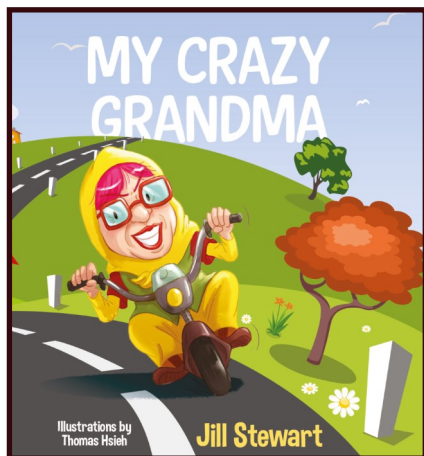
The afternoon peaked with an outstanding afternoon tea. The food was beautifully prepared and presented by the Friends of HOPE team.



Final things

My Crazy Grandma raises funds for ageing research

This is not a story about your typical Grandma but one you will always want on your side



Jill Stewart (aka Dr Jill Waters) has written a children's story and is donating all profits to the HOPE Foundation to support students undertaking research on ageing.

Jill shares the story, in over 16 colourful pages, of a Grandma with a pet orangutan and python; a Grandma who does not knit, sew, bake scones but follows motor racing, jousting and adventure.

Thomas Hsieh visually portrays the personalities of the characters.



Books can be purchased for \$20 plus \$6 pp.

Complete the order form on our website or email karen@hopefoundation.org.nz

[https://
hopefoundation.org.nz](https://hopefoundation.org.nz)

Our website



The HOPE Foundation has more information about Research on Ageing, our scholars and Friends of HOPE.

Please take a look

- Under the student menu option (hopefoundation.org.nz/scholars/) you will find
- Details of the scholars and their research projects
- Research outputs from both past and present scholars – both publications and scholar activities
- Thank you letters from our scholars

The website also has links to our social media page (bottom of page). You will keep up to date with the news if you follow the HOPE Foundation.

Ronnie Gardiner Method

In 2023 the HOPE Foundation sponsored training of practitioners in the Ronnie Gardiner Method (RGM) - a cognitively challenging exercise programme designed to provide

- activation for those with Parkinson's disease,
- rehabilitation for those with stroke,
- possibly delay in cognitive decline and
- improvement in functional measures related to falls.

It is also very acceptable and fun for healthy older people.

There are currently around 46 international RGM practitioners in New Zealand most working in residential care or community settings. Open classes/courses are currently only available in Kaitia, Auckland (Waiheke Island, Hobsonville), Kaikoura, Rangiora, Christchurch, Timaru, and Oamaru. If you would like to attend visit the Ronnie Gardiner Method website for more details.

<https://rgm-nz.auckland.ac.nz>

