

# The HOPE Foundation for Research on Ageing

Preparing New Zealand for an Ageing Future

I have been doing my usual medical reading and have been impressed by the range of research endeavours to improve the lives of older people.

Scientists examined the whole human genome and found over 70 specific genes that are associated with the risk of Alzheimer's disease. They also looked at the function of these genes to see if they might be truly causal. They found specific genes predicted increased risk of Alzheimer's disease in humans as well as behavioural abnormalities in fruit flies. The good news for fruit flies was reversing these genetic changes appeared to be neuroprotective, suggesting potential therapeutic options in humans.

Another group found by instilling gold nanoparticles into the eye, combined with electronic and computing wizardry, they could improve sight in macular degeneration, a common cause of visual loss in older people.

Others have found that urinary incontinence in women is a risk factor for cardiovascular disease. This finding may be important because cardiac disease is more challenging to detect in women.

Scientists at the pharmaceutical company GSK have developed gepotidacin, the first new antibiotic in 20 years to treat urinary tract infections. Few new antibiotics have been developed, while antimicrobial resistance has increased significantly over the past 2 decades, making this issue critical. Gepotidacin still needs to be registered and will take some time before it is available in clinical practice.

Closer to home, I have received the annual report from the Australian and New Zealand Fragility Fracture Registry. Collecting data and comparing outcomes across New Zealand has driven improvements in the quality of care and outcomes for people with osteoporotic fractures. Clinical standards of care have been developed, which you can read about in the 2025 Annual Report (<a href="https://live.fragilityfracture.co.nz/reports/">https://live.fragilityfracture.co.nz/reports/</a>

ANZFFR2025 Annual Report ELECTRONIC FIN AL.pdf). Additionally, this report highlights the research conducted by our HOPE Scholars.

What does all this research have in common? Research requires years of dedication, substantial funding, perseverance, recognition of both negative Dr Maree Todd Geriatrician Chair of the Foundation



and positive results, serendipity and a supportive culture at both national and global levels to make progress. Currently, government funding for research and universities in New Zealand and internationally is under pressure.

This makes the need for the HOPE Foundation for Research on Ageing greater than ever.

This year marks 20 years of support from the Friends of the HOPE Foundation. We will be celebrating their contributions later in the year. They have organised social gatherings, fundraising events and have spread the word about our work. Thank you, Friends, for your generous support. If anyone wishes to join and support this group, please let us know.

Please support us by sharing this newsletter and giving generously in any way you can.

Thank you for your support.

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

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### Friends of the HOPE Foundation



### Join the Friends of HOPE, make a difference

Yates, the chair of the Friends Committee, stepped aside, leaving an important gap within the Friends of HOPE.

This group plays a crucial role in fostering social connection and belonging, especially among older adults. The Friends of HOPE is a dedicated team committed to organizing high-quality fundraising

events for the HOPE Foundation, significantly contributing to funding our scholarships. We deeply appreciate their efforts – thank you, Friends! Thank you, Karen!

Under Karen's leadership, the Friends Committee

Recently, Karen Andersen- organized 22 successful events. Their hard work has not only provided financial support but also increased the profile of the HOPE Foundation for Research on Ageing as a reliable charity within the community.

> The HOPE Scholars enrich some events with their research and insights. The gatherings offer not just entertainment and delightful teas but also valuable information on new research relevant to older adults.

The Friends utilize a variety of skills, including organizing events, floral arranging, hosting delightful afternoon teas, and connecting with interesting people. Their creativity and dedication have been instrumental in their success. If you have a passion for making a difference and would like to join this vibrant group, please contact us. No one is too young or too old to help make a positive impact.

### An Italian afternoon with Nicky Pellegrino

13 October 2024, Selwyn Library, Parnell

The Friends of the HOPE Foundation created a superb Italian afternoon with author, Nicky Pellegrino.

Nicky was as bubbly as the Prosecco being sipped by guests who nibbled at the antipasto treats. She reminisced about her early days with her cousins in Italy, where she would often be the shy observer. Nicky frequently captures the drama of everyday Italian conversations in her books, bringing a slice of la dolce vita to her readers.

Nicky's writing career springboarded from the confidence gained from co-authoring the biography of Angela D'Audney. This project allowed her to write more than 1200 words in one piece, a significant milestone that propelled her into the world of novel writing. She shared how her characters evolve organically, guiding the story rather than adhering to a rigid plan. For Nicky, it's crucial that her stories are infused with humour and light-heartedness, offering readers an escape from their daily routines.

As the afternoon drew to a close, guests were treated to an array of delectable Italian sweets such as Florentines, tiramisu and amaretti. The event ended on a sweet note, much like Nicky's stories, leaving everyone with a sense of warmth and contentment. It was a lovely ending to the afternoon that celebrated not just Nicky's journey, but also a fundraising milestone for the Friends of HOPE. Buon appetito!



### Recent graduations

Congratulations to HOPE Scholars who have graduated in the last six months

Dr Keiko Oda—Integrating oral care into nursing practice from home to hospital car with interprofessional education and collaboration

Dr Fathima Shakeela—Comprehensive assessment of Parkinson's disease and novel non-medical therapy of swallow, cough and vocal symptoms.

Dr Nicola Slater—Parkinson's disease, cognition, and the cholinergic system

# **HOPE Foundation Scholarships**

### 2025 Hope Foundation Scholars

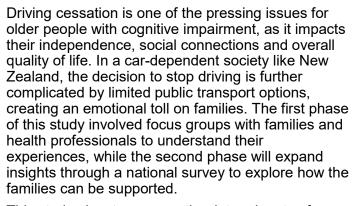
Through the generosity of our sponsors and the Friends of HOPE, we awarded eight HOPE scholarships this year. Each HOPE scholar receives \$6,000 to support their work on an ageing related topic of research.

Four of the eight scholars (Chunxu Chen, Christine Roseveare, Tara Sani and Mathew Shuen) are scholars from 2024. Their projects have been written up in past Newsletters and are briefed online (https://hopefoundation.org.nz/scholars).

Below we welcome our new scholars and their projects.

# Kushalata Baral: When to stop driving? An exploration into driving cessation decision-making for people with cognitive impairment

PhD candidate, Health Science, University of Waikato, Main supervisor: Prof Matthew Parsons



This study aims to uncover the determinants of balancing safety concerns with the emotional and practical impacts of taking away a loved one's driving privileges. Combining qualitative discernment from families and health professionals with quantitative data from a national survey, this research aims to inform strategies that support older

people and their families through this transition, fostering acceptance and reframing driving cessation as a natural part of ageing rather than failure.

The findings of the study will guide healthcare providers and community organisations in developing interventions that promote dignity, safety and social inclusion for older people as they adapt to life beyond the driver's seat. Health professionals are identified as advocates who can connect older people and families with resources such as transport alternatives, community support services and driving retirement planning initiatives.

I am deeply grateful for this scholarship, which provides financial backing and confidence to undertake such a socially significant topic. It can potentially improve the lives of older New Zealanders and their families, making New Zealand a better place to live and drive.

# Khanal Diwakar: Perspectives and experiences of migrant care workers in aged residential care in New Zealand

PhD candidate, University of Canterbury, Main supervisor: Dr Tiina Vares



Diwakar Khanal is a PhD candidate in Sociology at the University of Canterbury, researching the experiences of Asian migrant care workers (MCWs) in New Zealand's aged residential care sector. As the demand for aged care workers grows globally,

countries like New Zealand increasingly rely on MCWs, yet their voices often remain unheard. Asian MCWs, particularly women, face systemic challenges, including racism, gender oppression, exploitation and social marginalization, compounded by cultural differences and language

barriers. This study critically examines their perspectives through a migration lens, aiming to promote workforce sustainability, inclusivity, and equity in the aged care sector.

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

# **HOPE Foundation Scholarships**

# Jayanthi Nagalingam: Healthy ageing and wellbeing: Exploring the perspectives of older Indian migrants in Aotearoa New Zealand

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

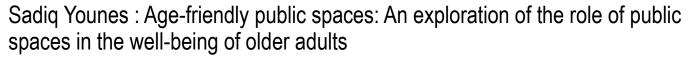
This study explores how older Indian migrants in New Zealand perceive healthy ageing and wellbeing, considering their diverse social, cultural, linguistic and religious backgrounds. Using a qualitative interpretive descriptive approach, the research examines many factors to identify the key barriers and enablers shaping their experiences of ageing and wellbeing.

Additionally, the study investigates perspectives from representatives of government and non-governmental organisations (NGOs) involved in supporting older Indian migrants. It evaluates existing policies and strategies aimed at promoting healthy ageing and wellbeing, while identifying gaps and opportunities for improvement. Older Indian migrants will share their personal experiences and perceptions related to healthy ageing and wellbeing.

They will discuss the barriers and enablers encountered and offer insights into how social, cultural, linguistic and religious backgrounds influence their health behaviours

and decision-making. Likewise, representatives from government and NGOs will provide their perspectives on policies, strategies and services that support this community.

The insights gained from this study aim to inform the development of culturally appropriate healthcare and social services tailored to the specific needs of older Indian communities and ultimately generating recommendations for developing a culturally responsive migrant-centred framework for healthy ageing and wellbeing within Auckland's multicultural context.



PhD candidate, Victoria University of Wellington, Main supervisor: Assoc Prof Bruno Marques



Ageing and urbanization are two major global challenges of the 21st century. The number of older people is increasing worldwide due to higher life expectancy, declining birth rates and better healthcare. Furthermore, the majority of older people now live in cities, which is part of the overall trend where more than half of the population resides in urban areas, and this is projected to increase to

around two-thirds by 2050.

New Zealand is not exempt from this global trend, and the number of older individuals is increasing exponentially. It is also important to note that New Zealand is a highly urbanized nation, with 87% of its population, including older adults, residing in urban areas. These two factors may contribute to greater pressure on social and healthcare services. Given this, the urban environment, as the immediate living space for older people, is becoming increasingly important and can significantly impact their quality of life. However, the needs of older people in urban space design are often not addressed, due to the paradigm that prioritises the preferences of the younger generation.

Using a mixed-methods approach, I seek to understand how older individuals use and perceive public spaces, the physical and social barriers and

facilitators that impact their daily lives, and the ways in which public spaces can be improved to enhance their quality of life. The findings of the study can guide the development of age-friendly communities in medium-sized cities and have policy implications for promoting autonomy and creating healthy and age-friendly environments.

Scholarships allow scholars to devote more time to their research. Scholarships relieve financial stress and allows career development opportunities which may not otherwise be available if the student is required to work.

#### Thanks to our Sponsors

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## **HOPE Scholar updates**

Being a PhD student is exciting. Not only are you focussed on a topic which you are passionate about but you get to talk about your project with like minded people—this includes overseas conferences and travel adventures.

All posters and reports can be accessed from our website—https://hopefoundation.org.nz/scholars/research -findinas

#### Benjamin Krinkel: Structural characterisation of human malic enzymes with small molecule inhibitors

PhD candidate, University of Auckland. Main supervisor: Assoc **Prof Kerry Loomes** 

In 2024, Ben gave his 'first-ever' conference talk at Biomolecular Horizons 2024. Ben was also awarded interactions. the Rising Star at the Asian Crystallographic meeting in Malaysia.

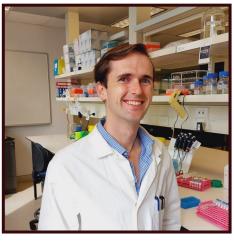
Ben's research focuses on two specific molecules which may stop the activity of a key enzyme (malic) in cancer cells. In 2024, Ben completed a significant stage of his research by producing malic enzyme crystals and resolving the crystal structure of malic enzyme 2 with a newly discovered small molecule inhibitor, thus enabling the determination of the

binding site and

Ben has papers in progress to document these findings.

This year, Ben will attend the American Association of Cancer Research Conference 2025 to present findings to a significant international audience and visit a lab at the University of Michigan to learn techniques for testing the new malic enzyme inhibitors on breast cancer cell lines.





#### Conor Nelson: Anti-GluN1 antibodies as a therapeutic approach to treating cognitive decline in ageing

PhD candidate, University of Auckland. Main supervisor: Assoc Prof Deborah Young

Conor is in the final stages of validating the effect of a novel therapeutic antibody for the treatment of dementia associated illnesses. There were two arms of the identify changed expression levels in proteins in the affected brain regions in response to the therapy.

The second arm explored alternate vaccination strategies for the delivery of the antibody therapy aiming for a preferred 'one-and-done' approach rather than repeated administration.

Conor presented at the Australasian Neuroscience Society Conference in Perth in December 2024. Conor is hopeful that some of the connections made at the conference will lead to long-term collaborations in the future.

Both arms of the project are in the final stages with Conor expecting to submit his thesis very soon.

#### project.

The first arm was to test the therapy in a mouse model of Huntington's disease. Results showed the therapy could attenuate the changes in motor function and behaviour. Conor was also able to

#### Aziza Shawudun: How do clinicians use assessment data to inform clinical practice when working with older people?

Summer Student, University of Auckland. Main supervisor: Dr Joanna Hikaka

Aziza's summer project was a segment from the larger 'Co-Creating High Utility Data Reports for Home Care and Aged Residential Care' project and focussed on the sector survey targeting professionals in the aged care sector to improve the

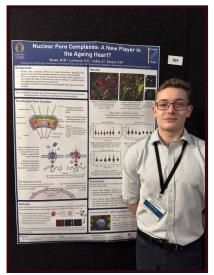
application and engagement with interRAI data, ultimately to enhance care quality and effectiveness.

(Continued on page 6)

# **HOPE Scholar updates**

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

PhD candidate, University of Otago. Main supervisor: Assoc Prof Phil Sheard



In 2024, Mathew focused on investigating longlived nuclear envelope proteins in ageing cardiomyocytes and cardiomyocyte senescence. He conducted proteomic analysis of these proteins in ageing human myocardial tissue. With most of the experimental work now complete, Mathew is currently writing his thesis and a review article on the role of nuclear proteins in

cardiac ageing.

Mathew presented some findings in a poster at the Queenstown Research Week. His research aimed to determine whether age-related changes in the levels of long-lived nuclear envelope proteins are a feature of ageing human cardiomyocytes. He concluded that there are no significant changes in the levels of immunodetectable Nup93, Nup98, or Lamin A/C as a function of patient age. These findings suggest that ageing human cardiomyocytes may have mechanisms for piecemeal repair of nuclear envelope components, or that age-related damage is not reflected by a decline in protein levels but rather by functional decline or modification.

The poster can be viewed on our website.

#### Emma Larsen: Deprivation in people with venous leg ulceration

Summer Student, University of Auckland. Main supervisor: Prof Andrew Jull

Emma's summer project aimed to examine the distribution of deprivation using the NZ Deprivation Index (NZDep) and the Indices of Multiple Deprivation (IMD) among trial participants, compared to the general New Zealand population, to determine whether deprivation is linked to venous of deprivation, individuals ulcer healing.

Data was aggregated from five historical trials to include 913 participants. Variables included ethnicity, ulcer area, duration of time to heal, smoking status, history of varicose ulcers, prescribed antihyperlipidemic, history of deep vein thrombosis and other factors. Deprivation level was quantified based on participants' home addresses.

Findings showed that although more Māori and Pasifika participants experienced deprivation than non-Māori and non-Pasifika, there was no association with deprivation and healing or time to healing.

These findings deliver an important message to clinicians working with venous leg ulcers. They emphasise that, regardless with venous leg ulcers who have access to appropriate and effective treatment have

similar likelihood of healing and achieving the same clinical outcomes as others, irrespective of their level of deprivation.

Access to this information could help foster and maintain optimism in individuals with venous leg ulcers, provided they have access to high compression treatment. Additionally, it can encourage healthcare

providers to persist in offering the best treatment options.

(Continued from page 5)

The interim analysis, of 66 professionals, highlights that while clinicians recognize the potential benefits of interRAI assessments, challenges such as data interpretation, system integration, and training hinder their effective use. Despite these barriers, there is broad recognition of interRAI's value. The study suggests addressing issues, such as, being more

accessible and targeting specific needs, and enhancing clinician training could improve the implementation and effectiveness of interRAI assessments.



# Research Findings

### Recent research publications from HOPE scholars

Oda K, Bakri N, Majeed S, Bartlett S, Thomson M, Parsons J, Boyd M, Ferguson A, & Smith M. Improving nursing oral care practice for community-dwelling care-dependent older people. 2024. Internation Journal of Older People Nursing 19:e12656 doi: 10.1111/opn.12656

Sani TP, Cheung G, Peri K, Yates S, Kerse N, Whaanga H & Cullum S. Cultural adaptations of the WHO iSupport for dementia: A scoping review. 2024. Dementia doi: 10.1177/14713012241283860

Slater NM, Melzer T, Myall DJ, Anderson TJ & Dalrymple-Alford JC. Cholinergic basal forebrain integrity and cognition in Parkinson's disease: A reappraisal of magnetic resonance imaging evidence. 2024. Movement Disorders doi: 10.1002/mds.30023 per lonelines nearth promotion and the promotion where the promotion of th

### The Knowledge Exchange - 8 May 2025

Thursday 8 May at Room 332, Building 903 (Ray Meyer Building), 314-390 Khyber Pass Road, Newmarket, Auckland.



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

#### Why attend the HOPE Foundation Knowledge Ex- 2. Specific gerontology research results change Day?

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.

#### Call for abstracts

Closing date for abstracts 24 April 2025 Closing date for registration 2 May 2025

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

- Established research groups / senior researchers (15 minutes)
- 3. Research ideas

For further information, to register and submit an abstract visit our website : https:// hopefoundation.org.nz/events/knowledge-exchange-25/

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

*No Cost* - Lunch, morning and afternoon tea provided.

### e-Diva online launch—15 May 2025, 3.30-6.30 pm

HOPE Scholar, Tara Sani, has been working on e-DIVA (Empowering Dementia Carers with an iSupport Virtual Assistant), a website to support carers of people living with dementia across New Zealand.

The e-DIVA website, developed in New Zealand, Australia, Indonesia and Vietnam, provides practical information on dementia care and is available in multiple languages. It is easy to find support topics which can be explored by typing or saying a few keywords.

Flyer can be downloaded from our website—https:// hopefoundation.org.nz/events/e-diva/



physiology knowledge Exchange 2025

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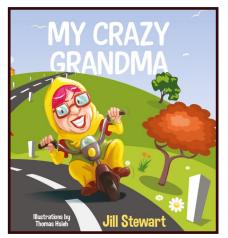
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# Final things

### 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 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/) your 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 webpage). Follow the HOPE Foundation for Research on Ageing to keep up-to-date with our news.

#### Ronnie Gardiner Method

In 2023 the HOPE Foundation for Research on Ageing 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.

Practitioner training is available in May in Auckland and Christchurch. These are both Introduction and Module 1 courses. If interested visit the Ronnie Gardiner Method website for further details.

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

