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Unravelling dementia requires a holistic approach that addresses the intricacies of the disease and shows dedication to the wellbeing of people with living experience. Our supported researchers are working tirelessly to provide solutions that offer more than a cure.

Dementia Australia Research Foundation acknowledges Traditional Owners of Country throughout Australia and recognises the continuing connection to lands, waters and communities. We pay our respect to Aboriginal and Torres Strait Islander cultures; and to Elders past and present.

#### Foreword

With more than 400,000 Australians living with dementia, it continues to pose an urgent and complex challenge.

Behind every confronting statistic, committed families are taking on this challenge with resilience, compassion and an unwavering dedication to their loved ones.

Alongside these families, teams of researchers are leading the charge not only towards a cure, but to improve the lives of nearly two million Australians who are either living with dementia or involved in their care.

For 25 years, Dementia Australia Research Foundation has supported Australia's best emerging researchers to explore, innovate and advance the entire field of research. During this time, they've enhanced our understanding of dementia at a cellular level and have developed models of care that are improving life for people and their carers.

This report is a testament to that remarkable progress and the important role that Dementia Australia Research Foundation has played. Equally, this report is a call to action. It's predicted that the number of Australians living with dementia will approach 800,000 in the next 35 years. However, with continued commitment and support from people like you, by the time we get there, we can be closer to a medical breakthrough and, ultimately, a cure.





Ita Buttrose AC OBE Dementia Australia Patron

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#### An exceptional journey

As Chair of Dementia Australia Research Foundation, I am extremely proud to present this 25-year impact report. The stories of progress, innovation and translation you are about to read are a testament to the inroads that have been made in research, from basic science all the way through to the design and delivery of dementia care. What is exciting is that this report is a mere snapshot of the exceptional research and researchers that Dementia Australia Research Foundation has supported.

The phrase 'humble beginnings' comes to mind when I reflect on how far Dementia Australia Research Foundation has come. In the early days, Dementia Australia, through the dedication of Scientia Professor Henry Brodaty AO, began raising funds specifically to support research. What was then known as Alzheimer's Australia Research Limited was formed 25 years ago in January 1998, with the first funding round in 2000. This marked the beginning of a formalised and consistent commitment to funding the best and brightest emerging dementia researchers in Australia.

I take this opportunity to acknowledge the work of many individuals during this time who, behind the scenes, have supported the Foundation by way of governance, strategy, scientific integrity and administration. Specifically, I acknowledge the past and present Board of Directors, members of the Scientific Panel and the National Managers of the Foundation. Importantly, I acknowledge people living with dementia, their families and carers who have guided all the work that we do.

In the past 25 years, \$31 million in research funding has been awarded in the form of fellowships, post-graduate scholarships and innovation, project and travel grants. So, finally, to anyone who has donated, however big or small, as a member of the public, or as a private or philanthropic organisation, I express my sincere thanks. The amazing work of Dementia Australia Research Foundation does not happen without your generous support.



Gras. Land

**Professor Graeme Samuel AC** Chair, Dementia Australia Research Foundation



# our Theory of Change



#### Problem

Dementia is a fatal degenerative condition. More than 400,000 people in Australia are living with dementia and it is one of the largest health and social challenges facing the world. People living with dementia can experience loss of dignity, identity and social connections – and are vulnerable to having their human rights significantly breached.

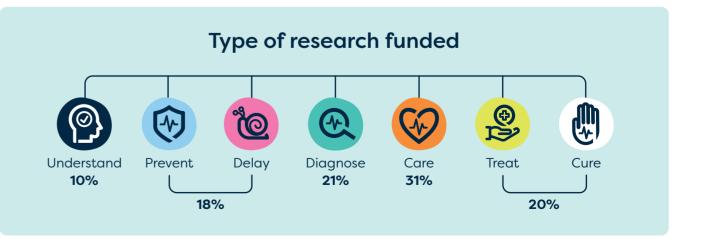
Dementia also impacts their families, carers and the broader community. As our population ages and the number of people living with dementia is projected to double in the next 35 years, a better understanding of dementia is critical. Interventions that reduce risk, improve early diagnosis and provide bestpractice care are now urgent.

#### Activities

- Inspire early-career researchers to embark on a career in dementia research.
- Support and mentor early-career researchers to build their track record of success and fast-track their funding opportunities - encouraging and inspiring them to stay in the sector.
- Support researchers across all stages of their career to undertake research that positively impacts the lives of people living with dementia, their families and carers.
- Seed fund the testing of new ideas and evidence-gathering for researchers to upscale projects.
- Assist dementia research to be effectively promoted, translated and sustained in practice.
- Actively and meaningfully engage people with living and lived experience of dementia at all stages of the research process to ensure research reflects their needs and concerns.
- Harness expert advice to identify key areas of dementia research need and strong teams with a high potential for success.

#### Outcomes

- Improved understanding of the mechanisms of all forms of dementia and their causes.
- Strategies that prevent the development of dementia or delay its onset.
- Better diagnostic tools and practices.
- Treatment options that slow the progression and relieve the symptoms of all forms of dementia.
- Strategies to improve the care of people living with dementia and the lives of their carers.
- Strategies that reverse or cure dementia.



#### Impacts

- Reduced incidence of dementia.
- People live a longer life before dementia.
- People living with dementia have better quality of life and more time to plan after diagnosis.
- People with dementia live longer and healthier lives with less severe symptoms.
- People living with dementia receive the best possible care.
- Carer wellbeing is improved and the cost of being a carer is reduced.
- Dementia is no longer a terminal illness and those diagnosed have a future.

Donor **Powered** Legacy

# World-first software facing pain head-on

Care

Donor support enabled a team at Curtin University to pioneer facial recognition-enabled software that detects pain in people around the globe who are living with dementia.



For Professor Jeff Hughes, it was 15 years working as a pharmacist in aged care, seeing people living with dementia prescribed cocktails of psychotropic drugs, that made him wonder if things could be done better.

"The focus was on management of behaviours - psychotic drugs, benzodiazepines, antidepressants," he explains.

"But behaviour changes are a response to an unmet need. One of the things that's often missing is good pain relief."

As a consultant pharmacist reviewing medications in aged care settings, Professor Kreshnik Hoti also dealt with many cases of antipsychotics being prescribed instead of pain relief.

"The problem was so obvious," he remembers.

So, Professor Hughes, Professor Hoti and their PhD student Mustafa Atee, sought funding to develop an AI-enabled pain assessment tool prototype in the form of a mobile device app.

Fast-forward to 2024 and that simple prototype has become PainChek®, a world-first clinically proven, technologyenabled pain assessment tool.

Using a smartphone camera, the AI-enabled software recognises subtle facial muscle movements indicative of pain in people living with dementia who cannot verbally communicate.

The carer then completes a series of digital checklists of other observed pain-related non-facial behaviours, which PainChek<sup>®</sup> uses to calculate an overall pain score.

#### Less people are silently suffering from pain; this is life-changing for people

In 2019, the Federal Government invested \$5 million to have PainChek® implemented in aged-care facilities around Australia. It is also regulatory approved and being used in New Zealand, Canada, Singapore and the UK, with more than three million pain assessments completed to date.

their loved ones.

Professor Hoti says receiving the Dementia Australia Research Foundation grant was a critical moment during a time when they were met with scepticism around the potential of AI and technology in this area.

"Now, it's really satisfying to see the effects of our innovation

is resulting in behavioural improvement and reduced need for psychotropic drugs," he says.

Dr Atee, who has risen from PhD student in 2012, to Research and Practice Lead at The Dementia Centre, says the possibility of reducing pain for millions of people inspires them all to keep innovating.

he says.

"Plus, we're investing in our own future and that of our loves ones."

8 More Than a Cure

#### in real-world clinical practice,"

he says.

"Less people are silently suffering from pain: this is lifechanging for people living with dementia and their loved ones."

Professor Hughes says the team has been blown away that what began as a prototype is now helping people living with dementia on a mass scale.

"Aged-care facilities have reported identifying pain in residents with behavioural changes where it was not suspected, and its treatment

# living with dementia and

"We always say to each other that easing the pain of one person is great, but doing it for many people is a blessing,"



#### Professor **Kreshnik** Hoti

Professor, Faculty of Medicine, University of Prishtina • University Associate, Curtin University • PainChek Senior Research Scientist Consultant

Publications: 80+ Book chapters: 3 Books: 1 Awards: 2 Patents: 5



Dr Mustafa Atee

#### **Research and Practice Lead.** The Dementia Centre

Publications: 20 Book chapters: 2 Conference participations: 53 Awards: 22 Patents: 5



#### **Professor Jeff Hughes**

PainChek Chief Scientific Officer • **Emeritus Professor, Curtin University** 

Publications: 300+ Book chapters: 37 Books: 3 Awards: 8 Patents: 5

#### Improving pain management amongst patients with dementia

Curtin University, Western Australia

Project grant and three-year PhD scholarship grant \$140,000 (2012) Supported by: Sylvia and Charles Viertel **Charitable Foundation** 



# The Brain Change Brain

Dementia Australia Research Foundation proudly supports researchers nationwide, including the dynamic team at Macquarie University. This multi-talented group is driving groundbreaking projects that are steering us closer to treatments that prevent dementia, slow its advancement and, ultimately, become a cure.



Dr Daryl Ariawan

13

**Dr Janet van Eersel** 

MACQUA

Dr Sor

**Professor Lars Ittner** 



#### NUMBER OF GRANTS: 1

#### Supported by: Navarra Care Foundation Winner of the 2022 Dementia Advocates' Award

Dr Bright is growing 3D human 'mini brains' to investigate genetic mutations involving the protein tau that cause dementia-like symptoms in children. Using the mini brains, she can model and investigate brain changes caused by these mutations. Dr Bright hopes her work will move researchers closer to developing treatments for tau-related dementias in brains of all ages.

## Delay

#### NUMBER OF GRANTS: 1

Supported by: Bondi2Berry

Dr Ariawan is using innovative peptide technology (which she developed) to target and block the toxic effects of the protein tau, which kills brain cells and causes cognitive decline in people with Alzheimer's disease. If successful in mice, she's hoping to develop peptidebased treatments that prevent or delay Alzheimer's disease in humans.

## Prevent

MREP OF GRANTS

NUMBER OF GRANTS: 3

Supported by: Bondi2Berry, Bondi2BlueMtns, Royce Simmons Foundation, Hiley and Allars families

Dr van Eersel has led multiple projects investigating the toxic, dementia-causing tau. Using her own technology, Dr van Eersel is now aiming to develop a revolutionary treatment that targets the build-up of tau in the brain, to stop the progression of Alzheimer's disease and frontotemporal dementia.

#### Treat

#### NUMBER OF GRANTS: 7 (Associate Investigator)

#### Supported by: Bondi2Berry

As director of the Dementia Research Centre, Professor Ittner has worked as an associate investigator or mentor on multiple projects run by his pioneering team. His own research has advanced our understanding of Alzheimer's disease and frontotemporal dementia by identifying new targets for drug development. Now Professor Ittner is working to translate these findings into treatment approaches.

#### NUMBER OF GRANTS: 1

Dr Parakh is investigating the impact that faulty proteins in the nucleus of brain cells have on frontotemporal dementia, and whether a little-understood nuclear regulator can prevent these proteins malfunctioning. Dr Parakh believes this may lead to the development of brand-new treatments for frontotemporal dementia.

Dr Sonam Parakh



Treat

**Dr Arne Ittner** (not pictured, now at Flinders University)



#### NUMBER OF GRANTS: 3

Supported by: The Yulgilbar Foundation, Howard and Norma Beaconsfield

Dr Ittner discovered how a molecule called p38gamma protects brain cells from toxic signals associated with Alzheimer's disease. He also uncovered a new function for the protein tau, which is heavily implicated in the development of the disease. His work has developed a new understanding of the brain, so researchers can create treatment pathways.

## Combatting dementia inequity among **First Nations peoples**

First Nations Elders are highly respected members of their communities. They pass down traditional knowledge and provide strong leadership, particularly for younger generations. Unfortunately, the risk of dementia in First Nations peoples is 3-5 times higher than the general population, making it one of the highest prevalence rates in the world.

Here are four projects that are aiming to reduce this by increasing awareness and developing much-needed culturally appropriate interventions.



Care

#### Associate Professor Melissa Lindeman

**Flinders University** 

Evaluation of a dementia awareness resource for use in remote Indigenous communities (2009)

Associate Professor Lindeman explored the effectiveness of a resource called *Looking Out for Dementia* in raising awareness of dementia in four remote Northern Territory Aboriginal communities. Linguistic and cultural barriers between health services and community members prevent people from becoming well-informed about the disease. The resource, which was in English and three Indigenous languages, had a substantial impact. It helped people develop a vocabulary for talking about dementia in their own languages, prompted others to access services and reduced the sense of isolation in supporting family members who had, or were at risk of, dementia.



Care

#### Dr Leander Mitchell

The University of Queensland

Developing appropriate assessments for people with dementia living in the Torres Strait (2020)

Supported by: NHMRC Dementia Centre for Research Collaboration

Dr Mitchell and the Healthy Ageing Research Team is developing a new screening tool for social and emotional wellbeing in First Nations peoples in the Torres Strait and Northern Peninsula Area. Depression and anxiety commonly occur alongside dementia. Due to a lack of culturally specific assessment tools, misdiagnosis in this population is common.

The team is conducting yarning circles with community members, Elders and health service staff, to ensure the tool uses culturally appropriate language for identifying common signs and symptoms of depression. The tool will be used in primary health and geriatric settings, ensuring a personalised dementia management plan.



#### **Dr Louise Lavrencic**

**Neuroscience Research Australia** 

Understanding relationships between neuroimaging markers and culturally relevant protective factors in Aboriginal communities: a way to enhance dementia prevention and diagnosis (2021)

Dr Lavrencic is working with First Nations Elders from communities in New South Wales to understand the relationship between the brain and culturally relevant factors that might help protect against cognitive decline. In an Australian first, Dr Lavrencic is conducting a study with 200 people from partnering communities, involving neuroimaging and validation of telephone cognitive assessments, to better understand how the brain and protective factors predict cognitive decline and dementia. The aim of this work is to inform culturally meaningful interventions and prevention strategies to reduce dementia risk.



Care

#### **Ms Pauline Mackell**

Royal Melbourne Institute of Technology and National Ageing Research Institute

Realising the potential of remote art centres to support older Aboriginal people and people living with dementia within the context of consumer directed care (2017)

Ms Mackell worked within a collaboration that explored the role that three Aboriginal community-controlled art centres play in keeping older people, Elders and people living with dementia strong and connected within their communities. The collaboration learnt that art centres are vital community hubs that uphold the roles and responsibilities of older people and, importantly, generate opportunities for intergenerational connection. In addition, the centres provide routine care and assist older people and their families to access aged care and other services.

# **Research's far-reaching ripple effect**

While the researchers we support are initially based in Australia, the influence of their work reaches well beyond our shores. Here, we illustrate the global impact that emerges when visionary researchers are empowered to pursue their ideas.

Canada

Washington

Los Angeles

San Francisco



Professor Clare Anderson Melbourne – Birmingham (UK)

Dr Jo Antoniades Melbourne – Bengaluru (India)

Associate Professor Nasser Bagheri Canberra – Boston (USA) – Nijmegen (Netherlands) – Saskatoon (Canada)

**Dr Alex Bahar-Fuchs** Canberra – Israel

Dr Leah Beauchamp Melbourne – Boston (USA)

Associate Professor Janet Beilby Perth – Detroit (USA)

Associate Professor Bianca Brijnath Melbourne – Amsterdam (Netherlands) - Boston (USA)

**Dr Rachel Buckley** Melbourne – Boston (USA) Associate Professor Michele Callisaya Melbourne - New York (USA)

**Dr Monica Cations** Sydney – London (UK) – Maastricht (Netherlands) - New Haven (USA)

Professor Nicolas Cherbuin Canberra – Texas – Los Angeles (USA)

Dr Karen Croot Sydney - Bielefeld (Germany)

Dr David Elliott Sydney - Gottingen (Germany) -Calgary (Canada)

Dr John Gehman Melbourne – Atlanta – Nashville (USA)

A/Professor Julia Gilmartin-Thomas Melbourne – London (UK)

Associate Professor Kreshnik Hoti Perth – Boston (USA) – Kosovo

**Professor Yue Huang** Sydney – Beijing (China)

Boston

New York

Chicago Missouri Nashville

Texas

Atlanta

Associate Professor Yen Ying Lim Melbourne - Providence - St Louis (USA)

Dr Sidong Liu Sydney - Boston (USA)

Dr Melinda Martin-Khan Brisbane – Oxford (UK) – Washington (USA) – Sri Lanka

Professor Alexandra McCarthy Toowoomba – London (UK)

**Dr Myles Minter** Melbourne - Chicago - Boston -Lemont - San Francisco - Davis (USA)

Professor Eneida Mioshi Sydney - Norwich - Cambridge (UK)

Associate Professor Chris Moran Melbourne - Oakland - Chicago (USA) Dr Patricio Opazo Brisbane – Edinburgh (UK)

Dr Yijun Pan Melbourne – Japan

Finland

Poland

Kosovo

Israe

Netherlands

German

UK

Associate Professor Lyn Phillipson Wollongong – Stirling (Scotland) - Salford (UK) - New Brunswick -Montreal (Canada) – Maastricht (Netherlands) - London (UK) - Wroclaw (Poland) – Kitchener (Canada)

**Professor Olivier Piguet** Sydney – Boston (USA) – Japan

Ms Dana Pourzinal Brisbane - Baltimore - Maryland (USA)

Dr Dustin Proctor Brisbane – Calgary (Canada)

Dr Lei Qian Brisbane – China

Dr Timo Rantalainen Melbourne – Jyväskylä (Finland) Dr Megan Steele

India

**Dr Juliet Taylor** 

Townsville – Singapore

Dr Ruby Tsang

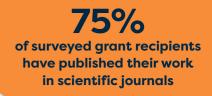
Dr Marion (Toni) Turnbull

Dr Sicong Tu

Professor Carolyn Unsworth Montreal (Canada)

Professor Kate Webster

14 More Than a Cure



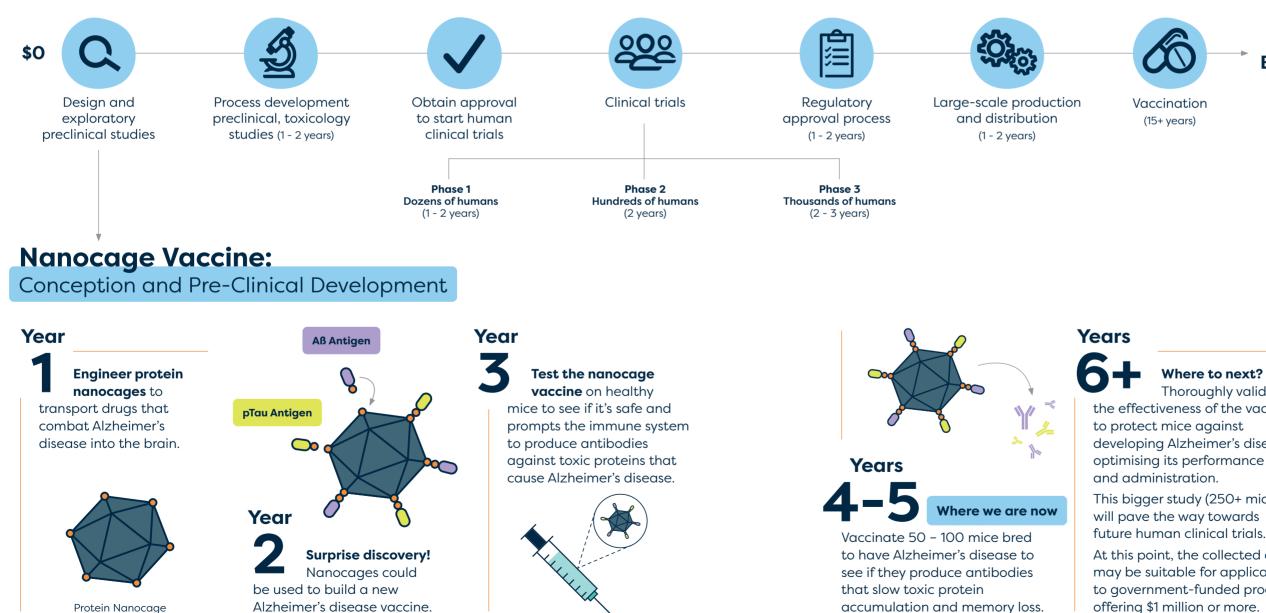




# Philanthropy fuels scientific innovation

Developing disease-preventing treatments demands years of work and billions of dollars. Philanthropy enables young scientists to explore unconventional ideas that could lead to ground-breaking discoveries. Here, we share the ongoing journey of early-career researchers Dr Andrew Care and India Boyton, and their innovative idea of re-engineering tiny particles found in nature, known as 'protein nanocages', into a vaccine to fight Alzheimer's disease.

#### **Vaccine Development Timeline**



3% of surveyed arant recipients have patented technology

\$2+ **Billion** 

Where to next?

Thoroughly validate the effectiveness of the vaccine developing Alzheimer's disease,

This bigger study (250+ mice)

At this point, the collected data may be suitable for applications to government-funded programs offering \$1 million or more.



**Dr Andrew Care** Chancellor's Research Fellow and Senior Lecturer University of Technology Sydney



**India Boyton** PhD Candidate University of Technology Sydney

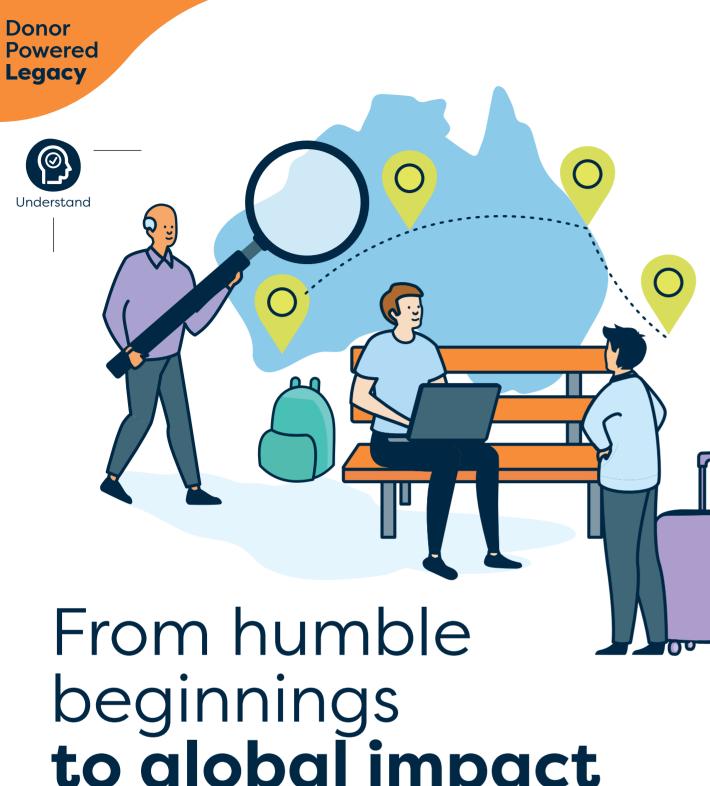
#### Dementia Australia Research **Foundation Funding**

Bondi2Berry Project Grant (2019)

PhD Scholarship (2019)

The Providence Foundation Project Grant (2023)

**Total funding** \$280,000



# to global impact

**Discover how three** researchers transformed a modest project grant into prestigious careers and an international crusade to conquer familial Alzheimer's disease.

If you could put a price on creating decades-long relationships with families that are central to advancing international research on familial Alzheimer's disease, that price would be \$6,750.

That's how much we awarded Dr Bill Brooks, Professor Tony Broe and Professor Olivier Piquet in 2002 to travel around Australia and study

families with rare inherited forms of the disease.

"Our goal was to understand the early brain changes in younger generations with the gene mutation," Professor Piquet remembers.

People with one of the specific gene mutations have a 50-50 chance of developing Alzheimer's disease from as

#### Our goal was to understand the early brain changes in younger generations with the gene mutation.

early as their mid-thirties, a worrying prospect that hangs over family members.

In one family, the first person affected by the disease died in 1940. He has more than 100 descendants spread over several states.

"We were able to meet about 20 key members of his family, some of whom were symptomatic, along with several other affected families," says Dr Brooks.

While the project may have officially finished more than 20 years ago, Dr Brooks has continued working with fourth and fifth generation family members and has learned a lot from them.

He's now studying 30 Australian families and, in 2008, they became part of a major international study, the **Dominantly Inherited Alzheimer** Network (DIAN), which is funded by the US National Institute on Aging.

- "The 2002 project grant, funded by donors through Dementia Australia Research Foundation, was vital to us becoming a part of DIAN, because we'd already built relationships with these families," he explains.
- "Without them, we wouldn't be doing this important work now."

Being a part of DIAN has supercharged Dr Brooks' research. DIAN is now conducting clinical trials of drugs that target the build-up of a protein called amyloidbeta, which researchers believe may at least in part cause Alzheimer's disease.

After the project, Professor Piquet completed a Post-Doctoral Fellowship at the prestigious MIT in the United States. He's now director of FRONTIER, the frontotemporal dementia clinical research group at The University of Sydney.

He has been following families with frontotemporal dementia, as part of the Dominantly Inherited Non-Alzheimer Dementias research project.

Professor Piquet has also spent many years mapping cognitive and functional changes to better support people and their families through their dementia journey.

"We're now at a point where, depending on the person's presentation, we are better equipped to inform them, and their family, about the disease trajectory and likely future changes in cognition and behaviour, based on the type of dementia they have," he says.

As Dr Brooks explains, if it wasn't for the families who continue to donate their time to research, the field wouldn't have progressed this much in 30 years.

"They've been part of an international effort to understand the condition and they're now getting a degree of hope for the next generations."



#### Dr Bill **Brooks**

#### Neuroscience Research Australia

Senior Research Fellow (Honorary)

Site Principal Investigator, Dominantly Inherited Alzheimer's Disease Trials Unit (Sydney)

Publications: 80 Book chapters: 2



Professor Olivier Piquet

The University of Sydney Professor of Clinical Neuropsychology

Publications: 330 Book chapters: 15



**Professor Tony Broe** 

#### **Neuroscience Research Australia**

**Emeritus Senior Principal Research Scientist** 

Publications: 200 Book chapters: 20 Books: 4

#### Variable clinical presentations in Australian families with familial dementias

Neuroscience Research Australia, New South Wales

Project Grant \$6,750 (2002)

### Lived experience powers passionate careers

For many of our researchers, their pursuits of effective treatments and better care for people living with dementia are fuelled by their own lived or living experience. Find out why these six researchers have dedicated their lives to creating a world that is no longer devastated by dementia.





#### Dr Nathan D'Cunha

Assistant Professor in Nutrition and Dietetics, University of Canberra

#### It is truly devastating when the person you love slowly changes and doesn't recognise you.

#### **Dr Kristie** Stefanoska

Scientia Professor Henry Brodaty Fellow, Flinders University

During my undergraduate degree I became interested in neuroscience, specifically how the brain works. Around the same time, my grandfather was diagnosed with Alzheimer's disease.

A few years later he was moved into an aged care home. I saw the impact this disease had on him and our family. It is truly devastating when the person you love slowly changes and doesn't recognise you. I decided to become a neuroscientist in the hope that I could learn about the causes of dementia and contribute to potentially identifying biomarkers or therapeutic interventions.

I volunteered at Prince of Wales Hospital in the dementia ward, where I got to meet people and learn about their experiences. It taught me that it is so important to promote what people can do and provide support where they may need it.

#### She used to be a person who had a photographic memory, but she essentially lost all memory of everybody, including me.



studying dementia.

I experienced the strain that dementia put on our family, not just economically, but mentally, socially and in many other aspects of life we could not have imagined beforehand. The goal of my work as a researcher is to provide the best therapies possible in a timely manner, to improve the lives of those living with dementia and the people who care for them.

#### **Dr Adekunle Bademosi**



#### My mum was diagnosed with younger-onset dementia, which further fuelled that motivation.

After high school, I worked in residential aged care for three years and felt very connected to people with dementia. A few years later, both of my grandmothers were diagnosed with Alzheimer's disease and moved into that aged care home. My interest in research was motivated from a personal perspective - I was trying to learn about modifiable risk factors, so that I could potentially prevent developing dementia myself.

During that time, my mum was diagnosed with younger-onset dementia, which further fuelled that motivation. It was my Dementia Australia Research Foundation PhD scholarship that helped push me towards interventions that may improve quality of life for people living with dementia and their carers. Currently, I'm focused on evaluating a multicomponent reablement program for people and carers at the University of Canberra Hospital. Spending time with participants and learning their stories is the highlight of my work.

My foray into dementia started when my maternal grandmother passed away from dementia. She used to be a person who had a photographic memory, but she essentially lost all memory of everybody, including me, and this piqued my interest in

Research Fellow, Queensland Brain Institute, The University of Queensland



## Initially, she experienced cognitive decline and memory loss, then it affected her behaviour. (9)

#### Dr Andrew Shoubridge

Post-Doctoral Research Fellow, South Australian Health and Medical Research Institute My maternal grandma and great-aunt both had dementia.

I saw how it impacted them, particularly my aunt, and it was devastating for our family. Initially, my aunt experienced cognitive decline and memory loss, then it affected her behaviour. She became aggressive and had to move into a psychiatric hospital, where she was locked down because of her aggression. Before long, she no longer recognised her husband, which devastated him. He'd visit her every second day, but she didn't know who he was.

I'd planned to be a medical doctor, but seeing this happen to my family made me want to find out why some people develop dementia and others don't. That's what pushed me down this path - as a researcher, I can ask these challenging questions and work towards an answer that will help not just people living with dementia, but also their partners and children.

# 66 He's still part of my research and that motivates me to be the best scientist I can be. 99

**Dr Leah Beauchamp** 

Post-Doctoral Researcher, Harvard University



#### Dr Anita Goh

Senior Research Fellow, National Ageing Research Institute



"

When it was time to think about a career, I felt I could make a difference in the dementia field. **9**  My Koong Koong's (maternal grandfather) diagnosis with vascular dementia sparked my curiosity about the brain. I remember being curious about what was happening to him – the changes in his personality – and how our family and friends came together to care for him. When it was time to think about a career, I felt I could make a difference in the dementia field.

As a clinical neuropsychologist and researcher, I am deeply committed to making a difference My memories of Grandpa are vivid. He'd let me "help" him with his crosswords, take me for long walks, and encourage me to stay curious. He was diagnosed with Alzheimer's disease when I was 16 and it was a tough adjustment for our family. Grandma inspired me to create something meaningful from my uncertainty and fear about Grandpa.

I'd always been excited by science and at university leaned into neuroscience. I remember my first lecture on the pathology of Alzheimer's disease and learning that although we knew so much about it, there was no cure. That was the moment I switched my academic focus to neurotherapeutics.

Grandpa passed away during the first year of my PhD. It wasn't a sad moment for my family; it was a celebration of all that he was. He's still part of my research and that motivates me to be the best scientist I can be.

in dementia care, prevention and treatment. I've met amazing people who continually inspire me and make my work fulfilling and meaningful. My Aba (father-in-law) is now living with dementia. I admire his quiet strength and, again, how his family and community have come together to find innovative ways for him to connect with his children, grandchildren and friends. The people are the reason I remain devoted to this vital work. Donor Powered Legacy

# <text>

Determination and donor support enabled a young researcher to transform a Post-Doctoral Fellowship into her own laboratory at Harvard University, where she's producing groundbreaking work on women and dementia.

#### We're one of the first groups to show that women are very different to men in their risk for pathology.

Being rejected from multiple scientific research grants is enough to make many earlycareer researchers throw in the towel. But Dr Rachel Buckley's drive to forge a career in dementia research gave her the tenacity to keep applying until something stuck.

That something came in 2014, when she was awarded a Dementia Australia Research Foundation two-year Post-Doctoral Fellowship to investigate memory complaints in at-risk older adults.

"That was huge for me," she recalls.

"I was feeling a bit downhearted and wondering if I was going to do a postdoc. Then this grant came along and allowed me so much autonomy.

"I had pitched an idea I was really excited about and was given the opportunity to explore it."

That fellowship turned out to be a stepping stone to several prestigious, highly competitive international grants and her own laboratory at Massachusetts General Hospital, which is Harvard University's largest teaching hospital. It's in this lab, in the Department of Neurology, where Dr Buckley is producing cutting-edge research on how dementia impacts men and women differently.

"We're one of the first groups to show that women are very different to men in their risk for pathology," she explains.

"We've found over and again that older women show much higher levels of tau, a brain protein that becomes toxic in dementia.

"Our most recent finding is that even middle-aged women have higher levels of tau, which we think is related to menopause. The use of hormone therapy may have a dual role in reducing or increasing the risk of dementia."

Dr Buckley is also in the early stages of researching how the X chromosome may exacerbate the risk of dementia.

For her, the big goal is to have a profound impact on the lives of women as they move through the ageing process.

"Not because women should be the only thing that we worry about," she explains.

"But because women have been so neglected for such a long time in basic science and clinically."



#### **Dr Rachel Buckley**

Assistant Professor of Neurology, Harvard Medical School

Assistant Investigator, Neurology Faculty Department, Mass General Research Institute

Publications: 284 Awards: 6

Investigating the modifying effect of cognitive reserve on subjective memory complaining in pathologically at-risk older adults

The University of Melbourne, Victoria

Post-Doctoral Fellowship \$220,000 (2014)

"There's still a hideous amount we don't know, but I feel like there's much more attention on women's health lately, in research and even in the media.

"It feels like we're in this now and we need to capitalise on it."



### Trailblazing women redefining innovation

We take immense pride in championing strong and brilliant women in science. Our grants empower early and mid-career researchers to advance scientific discovery and social progress, while ensuring a more equitable and inclusive future. Here are just five exceptional female minds making significant contributions in the fight against dementia.

**Dr MacAndrew's** research has identified care practices that are contributing to people living with dementia getting lost and being found injured or deceased. She has also identified strategies to improve the safety of people at risk of getting lost, while ensuring they remain engaged in meaningful and enjoyable activities. Dr MacAndrew is director of Dementia Training Australia for Queensland and the Northern Territory, an academic at Queensland University of Technology's School of Nursing and a member of Dementia Australia Research Foundation's Scientific Panel.

**Dr Goh**, a clinical neuropsychologist and senior researcher at the National Ageing Research Institute, is aiming to close the 17year gap between research evidence, policy and practice, and accelerate translation of research into improved care practices. Dr Goh is an honorary principal fellow at The University of Melbourne, honorary clinical neuropsychologist at the Royal Melbourne Hospital, an advisory council member of the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment, board director of the Australian Association of Gerontology, and vice president of Science and Technology Australia.

Dr Stefanoska's research has shown how a protein called tau – a critical factor in the development of Alzheimer's disease – switches from a normal to diseased state. As a research fellow in dementia and deputy lead of the Molecular Dementiaa and Memory Research Laboratory at Flinders Health and Medical Research Institute, she's investigating whether this discovery can be translated into a treatment that reduces the toxic properties of tau and improves memory function in people living with Alzheimer's disease.

#### Associate Professor Anita Goh

Closing the gap from evidence to practice to enhance dementia care: using change management and implementation science (2022) Supported by: Dr Stuart and Bonnie Bartle Mid-Career Research Fellowship

#### Dr Kristie **Stefanoska**

Master sites of tau phosphorylation as treatment targets for Alzheimer's disease (2021)

A tau-associated factor to enhance memory function and prevent neuronal cell death (2022) Supported by: Bondi2Barossa Project Grant Associate Professor Margaret MacAndrew

Getting home safely, phase 1 - generating agreement on national policies and procedures for reporting a missing person with dementia (2018) Autonomy and safety for people living with dementia: the 3Ps approach to getting home safely with dementia (2022)

Supported by: Many Miles for Mary Project Grant

#### Dr Rebecca Nisbet

Targeting pathogenic tau with phosphorylated-tau specific intrabodies (2013)



#### Dr Alexandra Grubman

Characterising and inducing a protective microglia phenotype in human Alzheimer's dementia (2018) Dr Grubman's research identified diverse molecular responses of microglia, the brain's immune cells, to the protein betaamyloid, which is a hallmark of Alzheimer's disease. Her highly cited work revealed specific single gene expression patterns tied to genetic susceptibility in the brain tissue of Alzheimer's disease patients. Dr Grubman is now medical advisor at pharmaceutical company Eisai. She collaborates with clinical Alzheimer's disease experts to prepare Australia for emerging treatments and plan educational and evidence generation strategies, to optimise quality use of future medicines.

**Dr Nisbet** developed antibodies that target and neutralise the toxic build-up of the dementiacausing protein tau. These antibodies have since been used by research groups worldwide and Dr Nisbet has become well-known for her innovative work engineering antibodies to break through the protective blood-brain barrier and bind to toxic tau. Her pioneering research has developed a greater understanding of how better tau-targeting drugs can be developed. Now head of the Antibody Therapeutics Laboratory at The Florey Institute of Neuroscience and Mental Health, Dr Nisbet is aiming to develop the next generation of potential treatments for Alzheimer's disease.

# Prevention: the ultimate defence against dementia

Modifying 12 specific risk factors has the potential to prevent or delay up to 40 per cent of dementia diagnoses worldwide. Many researchers we support have zeroed in on the lifestyle factors that are within our control. Their unwavering mission: to unveil actionable strategies that reduce our risk. Here are some of those projects.

\*Livingston G., et al. Dementia Prevention, Intervention, and Care: 2020 Report of the Lancet Commission. The Lancet Commissions. 2020; 396:413-46.

#### 12 modifiable risk factors\*

Less education	Smoking	
Hearing loss	Depression	
Traumatic brain injury	Infrequent social contact	
Hypertension	Physical inactivity	
Excessive alcohol consumption	Air pollution	
	Diabetes	
Obesity		



#### Associate Professor Nasser Bagheri

University of Canberra

Hotspots of dementia risk in Australian communities: an approach to better targeting preventive interventions (2015/2018)

Supported by: the Archie & Alwynne Gates and BB & A Miller research grants

Dr Bagheri was the first to identify Australian communities at high-risk of both dementia and cardiovascular disease. These two conditions share numerous risk factors, enabling the research team to identify regions at dual jeopardy and their correlation with socioeconomic status. They looked at the built environment, modifiable risk factors (cholesterol levels, smoking habits, diabetes prevalence, high alcohol consumption and depression) and nonmodifiable risk factors (age, sex). Two protective factors were also included - physical activity and social engagement. Using advanced geospatial techniques. Dr Baaheri predicted the future risk of dementia and cardiovascular disease for more than 17,000 people aged over 65 residing within these high-risk communities. This work will allow health professionals and policymakers to target prevention strategies where they're needed most.



Dr Phillip Tully The University of Adelaide

The importance of blood pressure and its variability to dementia: an individual participant data metaanalysis from the VARIABLE BRAIN consortium (2018)

Blood pressure naturally fluctuates whenever we move from sitting to standing, when sleeping and exercising. Dr Tully discovered that fluctuations in resting blood pressure (when we're sitting still) during the mid-life period are more strongly associated with a diagnosis of dementia or cognitive impairment than high blood pressure (hypertension). These findings are significant because many high-powered clinical trials of hypertension drugs have not consistently reduced the likelihood of developing dementia. Dr Tully's results may inform clinical practice and policy regarding blood pressure and hypertension management, especially in older people at greater risk of cognitive decline and dementia.

Prevent



#### Associate Professor Michele Callisaya Monash University

#### Pilot randomised controlled trial of exercise to preserve brain health in Type 2 Diabetes Mellitus (2013)

Dr Callisaya found promising results that exercise improves cognitive function and brain volume in people with Type 2 diabetes (T2D), which is a major risk factor for dementia. It's estimated that almost 200,000 dementia diagnoses could be prevented if there was a 25 per cent reduction in T2D. Exercise is associated with better brain function and is also recommended for people with T2D to reduce cardiovascular risk. However, Dr Callisaya wanted to know if it could preserve or improve brain health in this population. She conducted a six-month aerobic and resistance training intervention with people aged 50-70 and discovered that not only did the exercise group have better outcomes than the control group (who did light stretching), participants stuck with the program throughout the trial. These results suggest that exercise may play a valuable role in helping to reduce the risk of dementia and T2D.



#### **Dr Christa Dang**

National Ageing and Research Institute

MiND your thinking: examining relationships between patterns of repetitive negative thinking and blood-based biomarkers of Alzheimer's disease, neurodegeneration, inflammation and stress (2022) Supported by: The Co-Group Project Grant

Dr Dang is examining the connection between repetitive negative thinking (RNT) and cognitive decline, as well as biological markers of Alzheimer's disease. While it's normal to experience occasional negative thoughts and worries, persistent RNT has been associated with heightened rates of anxiety, depression, systemic inflammation and neuroinflammation. All these conditions are independently associated with dementia. For the first time, Dr Dang is investigating all these risk factors together in one group of people. Additionally, she will assess if the content of their thoughts plays a role and whether any blood biomarkers can predict a neurodegenerative disease diagnosis. With a better understanding of the connection between mental health and dementia, scientists can work towards developing preventative interventions.

# Innovative Projects

Care

#### At the forefront of enriching dementia care

As our dedicated biomedical researchers continue their diligent efforts towards developing treatments, preventions and a cure, brilliant minds across the nation are also focused on ensuring individuals living with dementia and their caregivers receive exceptional, evidence-driven support.



Dr Nathan D'Cunha, University of Canberra (2021)

Supported by: Hazel Hawke **Research Grant in Dementia** Care and The Co-Group





**Creating training** and education resources for community visitors of LGBTQ+ people who are living with dementia. Equipping visitors with the resources and tools to maintain relationships and prevent further isolation of this vulnerable community.

#### Dr Louisa Smith, Deakin University (2021)

Supported by: Dr Stuart and Bonnie Bartle Project Grant

Improving emotional and practical support to family carers during the residential care placement of their relative: and developing a standardised tool that helps aged care facilities to monitor, evaluate and improve mental health care practices and outcomes for residents with dementia.

Dr Deborah Brooks, Queensland University of Technology/ The University of Queensland (2015/2020/2021)

Supported by: NHMRC Dementia Centre for Research Collaboration



**Educating family** carers about behaviour changes associated with younger-onset dementia and equipping them with the skills to manage these behaviours at home, reducing the need for medication and early residential care.

Dr Sau Chi (Candy) Cheung, The University of Sydney (2021)

Supported by: NHMRC Dementia Centre for Research Collaboration



Investigating what's important to people living with dementia in terms of their intimate and sexual expression, and making recommendations for how their preferences can be both integrated into individual care plans, and used to inform industry best-practice quidelines.

Associate Professor Cindy Jones. Bond University (2013/2018)



Investigating whether a personalised, voice-controlled rehabilitation program, delivered via Amazon's Alexa Show 8, can improve cognition in people aged 60 and over with mild cognitive impairment or dementia. Assisting people Australiawide to live independently.

Dr Paul Jansons, Deakin University (2021)

Supported by: Dr Stuart and Bonnie Bartle Project Grant

Supported by: Hazel Hawke Research Grant in Dementia Care



O to build evidence, reduce

Associate Professor Lvn Phillipson, University of Wollongong (2021)

Supported by: NHMRC Dementia Centre for Research Collaboration



**Developing an** online program that teaches carers of people living with dementia how to use personalised **music playlists** to support people experiencing changes in mood and behaviour, thereby reducing the reliance on psychotropic medication.

Dr Sandra Garrido, Western Sydney University (2019)

Helping dementiafriendly communities evaluate the effectiveness of programs and activities they implement to allow people and carers to live well. Enabling communities

stigma and promote inclusion in community environments.





#### **Developing techniques** to combat common language difficulties

that can impact a person with dementia's social interaction and quality of life. Examining the clinical effect of a speech pathology treatment that encourages naming and talking about pictures to help people recall words in conversation.

#### Associate Professor Erin Conway. Australian Catholic University (2012)

Supported by: Hazel Hawke Research Grant in Dementia Care



#### Humanisina and empowering people with dementia living in residential aged care,

by developing recommendations for recognition of their human rights and creating a redress framework that facilitates justice and reparation for those who experience harm.

Associate Professor Linda Steele, University of Technology Sydney (2017/2020)

Supported by: NHMRC Dementia Centre for Research Collaboration

Our new research superstars

In the ever-evolving landscape of dementia research, a new wave of dedicated minds is emerging, determined to reshape the trajectory of prevention and care. These are four researchers who are harnessing the power of neuroscience, technology and community engagement to pave the way for a brighter future.



319 early-career researchers received funding



**Dr Marianne Coleman** The University of Melbourne

Breaking down barriers to accessing dementiafriendly eyecare (2020) Supported by: Lucas' Papaw Remedies

Dr Coleman is aiming to remove unique barriers people living with dementia face when accessing evecare. Routine eve examinations identify issues early and allow for timely intervention. Unfortunately, there is no formal training to help optometrists adapt these tests for people living with dementia. Poor eyesight increases the risk of serious falls and reduces a person's ability to perform daily activities. Reduced vision also impacts social interactions, causing feelings of isolation. In consultation with people impacted by dementia, Dr Coleman has developed online training for optometrists to deliver dementia-friendly eye tests and tailored eyecare advice, to improve quality of life and allow people with dementia to live independently for longer.





**Dr Andrew Shoubridge** South Australian Health and Medical Research Institute

Targeting of host-microbiome interactions to achieve precision in dementia risk reduction (2021) Supported by: McCusker Charitable Foundation

Dr Shoubridge has identified a link between changes in intestinal microbiology, impaired immunity and an increased risk of dementia. Maintaining healthy gut microbiology can reduce that risk by preventing inflammation, which is present in all age-related neurodegenerative disorders, including Alzheimer's disease. Fortunately, a nutritious diet and regular exercise positively impact the health of our microbiome and can reduce inflammation. Dr Shoubridge is now investigating whether profiling intestinal microbiome composition can identify people at risk of dementia before symptoms appear. He hopes the results can be used to develop a simple and inexpensive screening tool, similar to that of the National Bowel Cancer Screening Program.



Understand



**Dr Karissa Barthelson** Flinders University

Adult- and childhood-onset dementias: related causes and related solutions (2021) Supported by: Race Against Dementia

Dr Barthelson is investigating similarities between Alzheimer's disease and a form of childhood dementia called Sanfilippo syndrome. Both diseases present with similar brain changes and cognitive decline, and Dr Barthelson believes they may also share disease mechanisms. More than 2,300 Australian children are living with a form of dementia, due to more than 70 rare genetic disorders causing these progressive and fatal conditions. Genetic bases of childhood dementia are much better defined than Alzheimer's disease and there are more reliable animal models. Dr Barthelson is hoping that understanding their shared disease mechanisms will open the door to developing treatments for both forms of dementia.

Dr Suraj Samtani University of New South Wales

A novel social cognition intervention for older adults with cognitive impairment: co-design and pilot study (2020) A randomised control trial of a co-designed social cognitive stills intervention for older adults with cognitive concerns (2022) Supported by: NHMRC Dementia Centre for Research Collaboration

Dr Samtani is conductina a world-first randomised control trial of an online social cognitive skills intervention for older adults with cognitive concerns. Social cognitive impairments are consistently linked to poor mental health and reduced quality of life. Dr Samtani previously piloted this five-week group program with promising results. He's now investigating whether it helps people to stay connected, feel confident and contribute to meaningful activities. This project will also explore whether social cognitive skills training slows the rate of cognitive decline. If successful, it will be delivered to thousands of older Australians via a national aged-care provider.

# On the shoulders of giants





#### Professor Elizabeth Beattie

Emeritus Professor of Nursing, Queensland University of Technology

Nutritional challenges for family caregivers and persons with dementia (2008)

Supported by: Hazel Hawke Research Grant in Dementia Care

While Professor Beattie's grant targeted nutrition and dementia, her stellar career has improved the lives of people living with dementia in numerous ways. Her globally acclaimed research on dementia-related wandering, coupled with her extensive senior roles across academia and research, have significantly advanced dementia care. But her most significant impact lies in fostering emerging brilliance. With her supervision and mentoring of many investigators, Professor Beattie's influence also extends to training numerous clinical leaders in aged care. In developing curriculum for training organisations and co-chairing the Dementia Australia Research Foundation's Scientific Panel, she shapes the pathways of aspiring researchers.

The most satisfying aspect of mentoring early-career scholars is seeing them mature into skilled, independent, compassionate and committed scientists, with a respect for the lived experience and a desire to improve care and support. 59





#### Professor Chennupati Jagadish AC

Distinguished Professor of Physics, Australian National University

Use of brain organoids and artificial intelligence for understanding dementia (2018) Supported by: The Yulgilbar Foundation Innovation Grant

#### It has been a great pleasure working with bright early- and mid-career researchers with diverse backgrounds on important work to understand dementia.

Professor Jagadish AC brought together a team of rising stars across neuroscience, stem cell biology, nanotechnology and computer science to better understand the function of a healthy brain versus the brain of someone living with Alzheimer's disease. To do this they grew brain organoids, aka 'mini brains', which are human brain tissue grown from stem cells in a petri dish. His team used the mini brains to identify differences between diseased and healthy neurons and developed new insights into how the brain's immune cells function in Alzheimer's disease. Australia's most esteemed dementia researchers have secured grants to conduct pioneering projects, while nurturing new talent to establish careers in this highly competitive field. Mentoring is critical for scientific innovation and solving complex challenges. These researchers are passing their wisdom and knowledge onto the next generation of brilliant minds.



#### 

Treat

#### **Professor Simon Bell**

Director, Centre for Medicine Use and Safety, Faculty of Pharmacy and Pharmaceutical Sciences, Monash University

An international common data model for improving medicine management for people with dementia and comorbid conditions (2018) Supported by: The Yulgilbar Foundation Innovation Grant

Professor Bell and his team of four postdoctoral researchers, five PhD students and four masters students, developed an innovative platform for analysing medication data for people living with dementia. They analysed data from Australia, the UK, US and Hong Kong to generate new evidence regarding medicine safety and effectiveness for people living with dementia and cardiovascular disease or type 2 diabetes. This project filled a critical evidence gap, as people living with dementia are often excluded from randomised controlled trials. This project demonstrated that people with and without dementia derive the same benefits from newer diabetes medications for preventing cardiac events and heart failure hospitalisations.

This funding has allowed us to train and mentor researchers who'll continue to generate knowledge that improves medication safety for people living with dementia. 97% of surveyed grant recipients have mentored new researchers





#### Professor Perminder Sachdev AO

Scientia Professor of Neuropsychiatry, University of New South Wales

Nanotechnology for the diagnosis and treatment of neurodegenerative disorders (2018) Supported by: The Yulgilbar Foundation Innovation Grant

# It's a privilege to work with bright, young researchers. These minds have the potential to expand our knowledge and defeat this dreaded disease.

Professor Sachdev AM worked with earlycareer researchers across neuroscience and nanoscience to revolutionise the way Alzheimer's disease is detected and treated in the brain. His team used nanoparticles with magnetic imaging properties to transport anti-amyloid antibodies across the bloodbrain barrier in mice, which then bound to diseased plagues in the brain and could be detected by MRI. This two-year project created a new strategy for faster and more accurate diagnosis of Alzheimer's disease and treatment development. Two early-career researchers who worked on this project have since found success as a post-doctoral scholar in Switzerland and a faculty member in chemistry at Australian National University.

# Our past, present and future

Our Board of Directors and Scientific Panel have collaboratively shaped a foundation that emphasises progress. Their expertise and steady guidance have cultivated an environment that supports emerging talent and successful collaborations. Thanks to their efforts, Dementia Australia Research Foundation is on solid ground. Their guidance is steering our projects towards unravelling the complexities of dementia. We extend a heartfelt thanks to the past, present (and future) members.

Dementia Australia Research Foundation started small and the principles were simple: money raised for research should go to research. I'm very proud to be part of what has been achieved.

- Scientia Professor Henry Brodaty, Director and Chair (2000-2016)

#### **Board of Directors**

**Current Directors** 

Associate Professor Michael Woodward AM Ian Knight Neil Samuel OAM **Tony Newman** Isabelle Burke Maree McCabe AM, Company Secretary Professor Amy Brodtmann Professor Blossom Stephan Professor Graeme Samuel AC, Chair **Professor James Vickers** Scientia Professor Henry Brodaty AO

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Associate Professor Marc Budge Alan McCutcheon Andrew Watt Michael Lowe Michael Preece Robert Yeoh AM Ron Sinclair Sean Maher Vicki Krause Emeritus Professor Don Aitkin AO **Emeritus Professor Phil Waite** Alan Bevan Daniel Byrne (Dementia Australia Research Foundation Victoria) David Nathan David Scarlett David Galbally AM QC (Dementia Australia Research Foundation Victoria) David Guinane Glenn Rees AM Gordon Robinson Jerome Rowley John Morrison John van Ogtrop Swain Roberts Elizabeth Kennedy Kaye Pritchard Lynette Chester Maureen Keating Patricia Collett

Professor John McKellar AM ED Scientia Professor Kaarin Anstey

**Previous Company Secretaries** 

Frank Schaper Glenn Rees AM Carol Bennett

#### Scientific Panel

**Current Co-Chairs** 

Emeritus Professor Elizabeth Beattie

#### **Current Members**

Associate Professor **Giuseppe Verdile** 

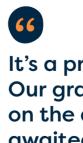
Margaret MacAndrew Associate Professor Paul Yates

Associate Professor Stephanie Rainey-Smith Dr Theresa Scott

Cameron Stewart, Dementia Advocate Ann Pietsch, Dementia Advocate Tara Ouirke, Dementia Advocate Professor Anna King Professor Kate Laver **Professor Olivier Piquet** Professor Thomas Fath Professor Meera Agar

#### **Previous Chairs**

**Professor James Vickers** Professor Velandai Shrikanth Scientia Professor Henry Brodaty AO Scientia Professor Kaarin Anstey



Professor Elizabeth Coulson

Adjunct Professor Kathryn Moyle, Dementia Advocate

Associate Professor Joanne Ryan

Associate Professor

#### **Previous Members**

Associate Professor Chris Toye Associate Professor Mark Yates Associate Professor Michele Callisava

Associate Professor Peter Dodd

Associate Professor Rosie Watson

Associate Professor Nawaf Yassi

Dr Christine Bryden AM, Dementia Advocate

Dr Jane Thompson, Dementia Advocate

Dr Mukesh Haikerwal AC

Emeritus Professor David Ames

Emeritus Professor Lindy Clemson

Emeritus Professor Rhonda Nay lan Gladstone. Dementia Advocate Professor Colin Masters AO Professor Glynda Kinsella Professor Lee Fay Low

Professor Leon Flicker AO

Professor Lynn Chenoweth

Professor Paul Adlard

Professor Ralph Martins AO

Professor Simon Bell

Professor Tony Broe AM

Professor Wendy Moyle

Professor Yun-Hee Jeon

#### It's a privilege to be part of this team. Our grants and fellowships, now a fixture on the dementia landscape, are eagerly awaited each year.

- Dr Annette Moxey, General Manager

# How our grants work

With a focus on supporting Australia's talented new and early-career dementia researchers, the Foundation awards more than \$2 million annually through its highly competitive Dementia Grants Program.



Over the past 25 years, we've funded project grants, travel grants, innovation grants, fellowships, and post-graduate scholarships.

#### Step

#### Academic review

Our Scientific Panel, a group comprised of leading dementia researchers and people with a living experience of dementia, leads the assessment of the Dementia Grants Program and advises the Board of Directors on the bestqualified award recipients.

Our rigorous academic review process is conducted in two stages:

- **1.** The scientific merit of each application is reviewed without the identity of the applicant being revealed (a 'blind' review), to ensure a fair assessment.
- 2. Shortlisted, potentially fundable applications receive a comprehensive review. The applicant's ability to conduct the research (track record) is assessed alongside the scientific merit, originality and significance of the proposed research.

#### Step

#### The voice of living experience

Our panel of living experience experts assess the shortlisted applications to determine whether researchers have included the voice of people living with dementia, their families and carers in the project in a meaningful way. Each year, the highly regarded Dementia Advocates' Award is given to one project Advocates' deem best placed to deliver important outcomes for people impacted by dementia.



March – June

Scientific Panel and Board of Directors decide on the size and composition of the Dementia Grants Program, based on available funding and strategic direction



July – August Dementia Grants Program open for

applications



September – October

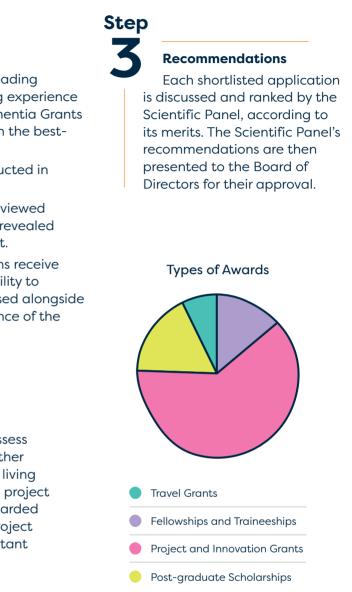
Applications undergo review by leading dementia researchers and experts with a living experience of dementia



November

Scientific Panel makes award recommendations for approval by the Dementia Australia **Research Foundation Board** 

#### 75% of arant recipients are still working in the field





# Why invest in us?

#### **Proud history**

In the early days, small grants were provided for dementia research. In 2000, three \$10,000 grants were awarded under the newly formed organisation Alzheimer's Australia Research Limited. With the generosity of our supporters, the value of our grants program has steadily increased. To date, \$31 million has been awarded to researchers around Australia - an achievement we are extremely proud of.

#### Living experience experts

The voices of people living with dementia and carers are included in our strategic decisionmaking and grant review process. This ensures that our work reflects the needs of (and yields important real-world outcomes for) people living with dementia, their families and carers.

#### Our experiences help researchers develop strategies that improve the lives of people impacted by dementia. We provide the human face

to research. 🥺 - Tara Quirke, Dementia Advocate and Scientific Panel member

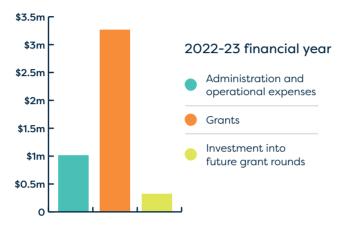
#### Leadership

Our Board of Directors consists of highly qualified medical, research, finance, governance and living experience experts, responsible for providing leadership and strategic direction. The Board meets quarterly and receives recommendations from the Scientific Panel on funding the best and brightest researchers through our annual Dementia Grants Program.

#### Sustainability

The Finance, Audit and Risk Management Committee of Dementia Australia is responsible for ensuring Board stewardship and oversight

in respect to key financial, risk, compliance and audit-related matters. Revenue is responsibly managed, with 80 per cent of annual income spent on funding high-quality dementia research.



#### Track record of success

Major success has been achieved through our ability to provide targeted funding for new and early-career dementia researchers, and form collaborative partnerships with donors, key stakeholders and research teams. The scope of our grants program encompasses areas that are vital to improving the outcomes of people living with dementia and, ultimately, ending the disease.



The critical role of this funding in advancing my career cannot be overstated. It opened doors to various opportunities, such as presenting my findings and delivering training to healthcare professionals. As a result, my work has gained recognition on national and international platforms.

- Cindy Jones, Project Grants (2013/2018)

#### **25 Years of Impact**

<ul> <li>1984</li> <li>The network of consumer support organisations known as Alzheimer's Australia (and the precursor organisation to Dementia Australia) begins providing small grants for dementia research</li> <li>1998</li> <li>Alzheimer's Australia Research Limited registered with ASIC</li> <li>2000</li> <li>\$30,000 awarded</li> <li>2001</li> <li>\$30,000 awarded</li> <li>2002</li> <li>\$41,750 awarded</li> <li>2003</li> <li>Hazel Hawke AO and Alzheimer's Australia (later known as Dementia Australia) establish the Hazel Hawke Alzheimer's Research and Care Fund to support dementia care research across Australia</li> <li>Scientific Panel formally established to review grant applications</li> <li>\$60,000 awarded</li> <li>2004</li> <li>\$206,375 awarded</li> <li>2005</li> </ul>	
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\$172,933 awarded	\$1,776,1
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9.426 awarded

1.112 awarded

2.191 awarded

8.188 awarded

consumer involvement itated through the sumer Dementia earch Network, ch was established Izheimer's Australia er known as Dementia ralia) to facilitate e active involvement eople with a living erience of dementia esearch design and ementation

1.744 awarded

ne changed to eimer's Australia entia Research ndation Ltd

2.535 awarded

eimer's Australia nentia Research ndation Victoria ablished, with a focus ictorian researchers outcomes

76.110 awarded

2013 \$2,535,000 awarded

2014 \$2,799,910 awarded

\$1.028.291 awarded

2016

2015

\$965,000 awarded

#### 2017

Unification of state and territory organisations as Dementia Australia and a single national research organisation established - Dementia Australia Research Foundation Ltd

\$1.010.000 awarded

2018

\$3,160,000 awarded

2019

\$1,497,262 awarded

2020

\$1.716.364 awarded

2021

\$5,363,423 awarded

2022

\$2,384,388 awarded

2023

\$3.006.114 awarded

#### **Dementia Australia Research Foundation**

# Strategic Intent 2022 - 2025

#### Our vision and purpose

Dementia Australia Research Foundation's vision is:

- A world where dementia research is well funded and translates into practice in all of its forms;
- Dementia researchers are inspired and supported; and
- People living with dementia, families, carers and supporters are a key part of dementia research and translation.

Dementia Australia Research Foundation's core purpose is to:

• Support new, early- and mid-career researchers to get involved, and then stay involved, in high-quality dementia research.

We also aim to:

- Drive and support translation, so that research ultimately makes a tangible difference to the lives of people living with dementia.
- Be a 'go-to' body for dementia researchers and provide authoritative advice, especially on strong research practice and where research intersects with, or has an impact on, people living with dementia and their supporters.
- Support the proactive and appropriate involvement of people living with dementia, families and carers in research.

#### 3 Our enablers

In order to deliver our strategic intent, it is vital that Dementia Australia Research Foundation invests accordingly in key organisational enablers, including investment in the following key areas:

- Staff capacity and capability
- Consumer engagement
- Partner co-ordination
- Donor management
- Administration costs.

78% of surveyed grant recipients have secured further funding to continue their work



#### Objective 1:

- a) Support new, early- and mid-career researchers to undertake research that positively impacts the lives of people living with dementia, their families and carers; and
- b) Encourage new, early- and mid-career researchers to remain in the dementia research sector.

#### **Objective 2:**

Help to ensure that dementia research is effectively translated and sustained in practice, and translation science is progressed.

#### **Objective 3:**

Develop Dementia Australia Research Foundation as an independent, authoritative voice on evidence-based dementia research, research approaches and funding advice.

#### **Objective 4:**

Ensure that people living with dementia are actively engaged in research, can access relevant research findings, and experience better service and treatment, as a result of research.







For 25 years, Dementia Australia Research Foundation has supported Australia's best emerging researchers to explore, innovate and advance the entire field of research. 9

 Ita Buttrose AC OBE Dementia Australia Patron

If you'd like to see dementia research make a real impact, donate today:

& 1300 636 679

- dementia.org.au/donate-research
- foundation@dementia.org.au

Dementia Australia Research Foundation Ltd. ABN 79 081 407 534 / ACN 081 407 534