



Invest in Positive Change.
www.cheba.unsw.edu.au/the-dementia-momentum

The Dementia Momentum

an initiative of
the Centre for
Healthy Brain
Ageing (CHeBA)



UNSW
SYDNEY

The impact of dementia



With the greying of our society, one of the biggest global public health challenges in history is that of dementia.

The number of people with dementia worldwide is increasing rapidly. There are currently an estimated 55 million people with dementia, and estimated to increase to 139 million by 2050.

More than 487,500 Australians have a diagnosis of dementia, which is expected to increase to almost 1.1 million by 2058 without a medical breakthrough. Each day, an estimated 244 new cases are diagnosed. Dementia is now the second leading cause of death in Australia, and the third leading cause of disability burden for the entire population.

The total estimated global cost of dementia is enormous: approximately \$US818 billion in 2015. In Australia alone, the estimated cost in 2018 was \$15 billion, of which 62% are direct costs and 38% opportunity costs. By 2056, this figure is projected to increase to \$36.8 billion. In 2019, the estimated total global societal cost of dementia was US\$ 1.3 trillion, and these costs are expected to surpass US\$ 2.8 trillion by 2030 as both the number of people living with dementia and care costs increase.

There is no cure for Alzheimer's disease or most other dementias. The answer lies in more high quality research, like the studies being conducted at the **Centre for Healthy Brain Ageing (CHeBA)**. A number of risk and protective factors for Alzheimer's are already known. Since the disease process generally begins 20-30 years before the symptoms become apparent, it is never too early or too late to implement targeted strategies to prevent or delay symptoms. As pre-clinical diagnosis becomes possible, we are better placed to administer disease-retarding and therapeutic treatments as they become available. For this to happen, we need to develop tests to identify those at risk very early in the course of the disease, trial intervention strategies and develop successful treatment packages.



What is The Dementia Momentum?

The Dementia Momentum is a movement to bring researchers and the community together to reduce the incidence of dementia. It is an opportunity for philanthropists to invest firmly in social change by advancing the research being conducted at CHeBA. Despite the challenges being enormous and confronting, the fact that dementia rates for future generations are changeable is encouraging and provides a strong argument for large scale investment aimed at the prevention of dementia. The future of positive ageing and dementia research lies in combining data from international research studies into “big data” sets that produce more robust statistical models involving multiple risk factors from diverse communities and more precise estimates than can be reliably obtained from current, individual cohort studies. This will facilitate the prevention, earlier diagnosis and earlier and more effective interventions for all types of dementia.

Strong and committed funding partners are crucial in increasing research output and developing sustained, long-term impact that helps to prevent dementia. The consortia need infrastructural support and a number of junior researchers to coordinate the data gathering, harmonisation and analyses. CHeBA is seeking philanthropic partners who wish to be a part of this momentum. Our goal is to drive momentum in awareness, research and societal change for a brighter future.



We have had to learn to walk this journey with Suellen all sharing the desolate sense of helplessness, frustration and sadness that comes with knowing there is currently no known cure

The reality of dementia



My wife Suellen has advanced early onset Alzheimer's disease (EOAD) having been formally diagnosed in 2011 aged just 61. She has been in Residential Care since early 2014 and in High Care since December 2015 and is very much in need of high levels of care and support. For me, our children, her family and our close friends, we have had to learn to walk this journey with Suellen all sharing the desolate sense of helplessness, frustration and sadness that comes with knowing that there is currently no known cure.

Any advances in understanding the causes, preventative measures, treatment and care can start the process of confronting this terrible disease and hopefully reduce the number of families that have to endure what Suellen and we are experiencing.

The Dementia Momentum is a bold attempt to bring the right researchers, senior business folk and \$'s together to materially increase the pace of clear, clever and relevant work in confronting this disease.

I am delighted to commend this initiative and encourage you to do what you can to assist.

Richard Grellman AM
Spokesman for The Dementia Momentum



The future of dementia

By 2050: **131,500,000**

ESTIMATED NUMBER OF PEOPLE WITH DEMENTIA IN THE WORLD



MORE THAN 5 TIMES THE POPULATION OF AUSTRALIA: 25,887,654

Without substantial investment in research to alter this prediction, the impact of dementia will be socially and economically devastating.



500
new nursing
home beds
needed per
month for
40 years



US \$1 TRILLION
Global societal
cost in 2018



Aged care
workforce will
need to **TRIPLE**
by 2050

Why CHeBA?



Given that dementia is primarily a disease of late-life, delaying the onset by targeting modifiable risk factors of dementia will have a major impact on prevalence and incidence. Interventions geared at reducing modifiable risk factors such as cognitive inactivity and vascular factors, in isolation or combination, will reduce the number of people affected with dementia.

Australia could save \$5.7 billion over the next decade if it could reduce the number of people over the age of 65 suffering dementia by just 5%.

At CHeBA, we want to lead this momentum.

For these outcomes to manifest, we need world leaders in brain ageing research to tackle this issue, and the resources to deal with it. Led by two of Australia's most distinguished and internationally recognised researchers in dementia and ageing related fields, Professor Henry Brodaty and Professor Perminder Sachdev, CHeBA is well placed to take on the challenges of ageing and dementia by using the power of large international consortia and big data sets.

CHeBA aims to change the future of dementia by:



Identifying
risk and
protective
factors for
abnormal
brain ageing



Developing
strategies for
prevention of
cognitive decline



Promoting global
collaborations to
develop
knowledge and
further research
into brain ageing



CHeBA
researchers
are harnessing
the power of
international
studies by
bringing them
into large
consortia

Big data - big outcomes

“Big data” or “big data analytics” is a broad term describing data sets so large or complex that traditional data processing techniques are inadequate. The extremely high volumes, velocity and variety of data from multiple sources in various formats necessitate specific and expensive technology and analytical methods for its translation into practical value.

The best method to investigate the determinants of healthy ageing is to examine cohorts of individuals as they grow old. At CHeBA, this has been done by establishing **four ageing cohorts (groups of people sharing a particular statistical or demographic characteristic)**: the Sydney Memory and Ageing Study (MAS), the Sydney Stroke Study (SSS), the Older Australian Twins Study (OATS) and the Sydney Centenarian Study (SCS). These studies have provided many insights into ageing and dementia.

CHeBA researchers wish to take this line of investigation to the next level by making it international. World-wide, a number of research groups have asked similar questions and established studies in their local area. Since dementia and ageing are universal concerns, CHeBA researchers have been trying to harness the power of these international studies by bringing them into consortia. These consortia not only provide large sample sizes necessary to address some of the questions, they also provide the ability to replicate the findings of one study in a different geographical and ethnic group, and to determine which risk and protective factors are universal.

The focus is on translation of research into real impacts on affected individuals and their families.

CHeBA: Leading the Way

Funding will go toward the following international consortia, which CHeBA leads:

COSMIC (Cohort Studies of Memory in International Consortium): Identifies common risk/protective factors and biomarkers for dementia, mild cognitive impairment, age-related cognitive decline and geriatric depression. For more information, see <https://cheba.unsw.edu.au/consortia/cosmic>

STROKOG (An international consortium of studies of post-stroke cognitive disorders): Identifies factors that lead to dementia in patients with stroke and mini-strokes, and how cognitive impairment progresses in these patients. For more information, see <https://cheba.unsw.edu.au/consortia/strokog>

ICC-DEMENTIA (The Dementia Workgroup of the International Centenarian Consortium): Examines the determinants of healthy and abnormal cognitive function in exceptionally long-living individuals who may be regarded as models of successful ageing. For more information, see <https://cheba.unsw.edu.au/consortia/icc-dementia>

Our goal is to develop sustained, long-term impact that helps to prevent dementia

Challenges of Big Data

The technologies and human resources needed to overcome the following challenges are expensive and require significant funding over several years:

- Gathering
 - Pooling
 - Analysis
 - Storage
 - Information privacy
 - Highly specialised biostatisticians

The word cloud illustrates the interdisciplinary nature of big data research, encompassing fields like technology, management, and social science, while also highlighting specific challenges such as privacy and data volume.

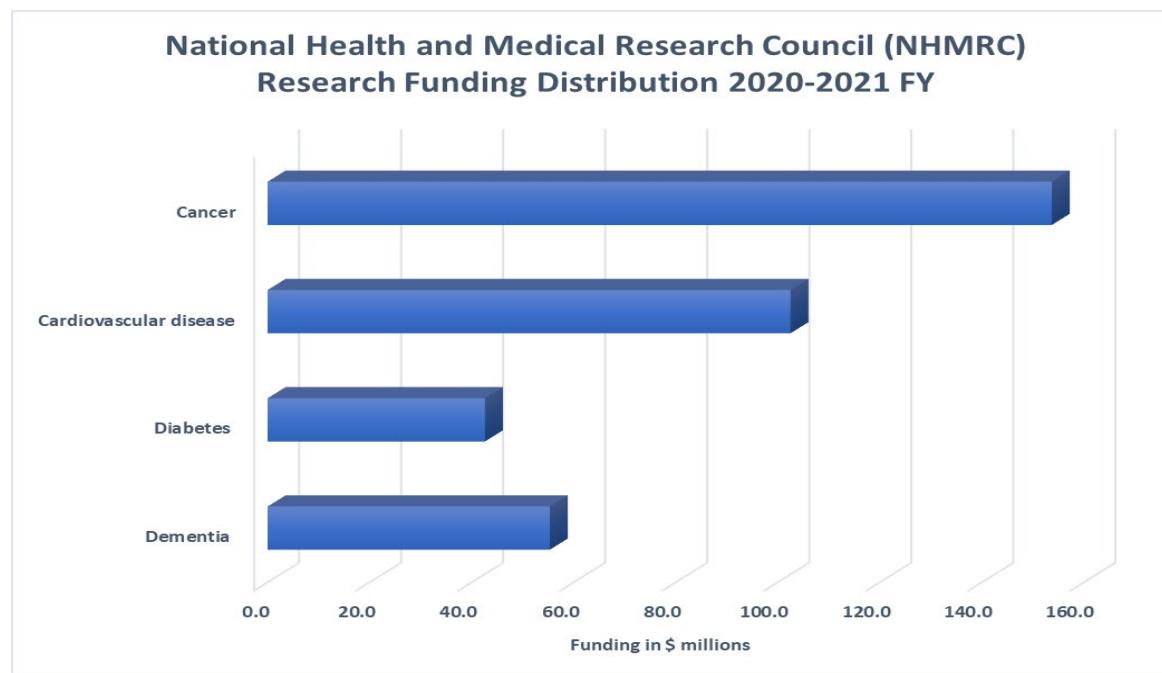


Philanthropy is crucial for big data



Prevention depends largely on research, yet dementia research continues to be grossly and disproportionately underfunded when its prevalence, disability burden and cost are taken into account. In the 2010-11 financial year, the National Health and Medical Research Council (NHMRC) funding for research on chronic disease was \$144 million for cancer and only \$19.3 million for Alzheimer's disease and other dementias; an imbalance that must be righted.

The formation of consortia to harness “big data” is labour-intensive. It requires the provision and support of a computer platform for the safe repository of the data, considerable effort into quality checking and harmonising diverse data sets, and high end statistical expertise to analyse large datasets. CHeBA is seeking funds to support this infrastructure. The success of this project will make CHeBA the hub of considerable international research activity in ageing and dementia, situating Australia as a world leader in dementia studies.



Dementia Momentum Membership

DEMENTIA MOMENTUM PARTNER
(over five years)

\$1,000,000+

DIAMOND
MOMENTUM
MEMBER
\$500,000+

PLATINUM
MOMENTUM
MEMBER
\$100,000+

GOLD MOMENTUM
MEMBER
\$50,000+

SILVER MOMENTUM
MEMBER
\$25,000+

BRONZE
MOMENTUM
MEMBER
\$10,000+

TEAL MOMENTUM
MEMBER
\$5,000+



Members of The Dementia Momentum

DIAMOND MEMBERS

**John Holden
Family Foundation**



PLATINUM MEMBERS



**Sachdev
Foundation**

**Judy Harris &
Phil Cave AM**



GOLD MEMBERS



**Peter & Yvonne
Halas**

**Henroth Investments
Pty Ltd**

SILVER MEMBERS



**Roger & Merrilyn
Layton**

BRONZE MEMBERS



Sandler iPartners



**Sue
Edwards**

**Paul Cave AM
& Carol Cave**

**Keri
Chittenden**

**Jan
Surnicky**

**Arthur
Mitsoulis**

Members of The Dementia Momentum

TEAL MEMBERS



Brenda &
Stephen Lennard

The Mansfield
Family

Pamela
Madafiglio



The Howarth
Foundation

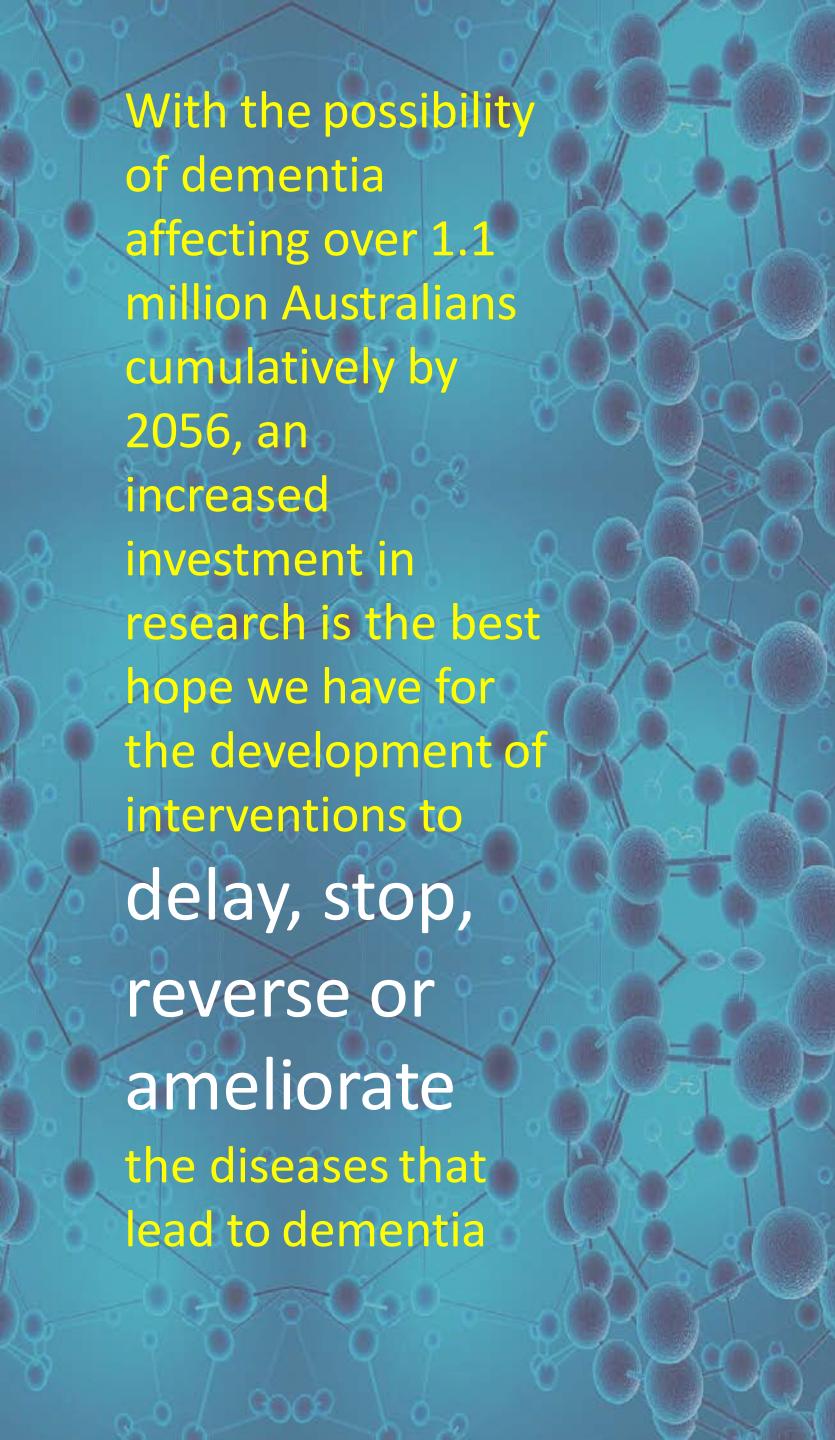
Peter Ivany AM
& Sharon Ivany

Ann & John
Cunningham



MAJOR IN KIND SUPPORTERS





With the possibility of dementia affecting over 1.1 million Australians cumulatively by 2056, an increased investment in research is the best hope we have for the development of interventions to delay, stop, reverse or ameliorate the diseases that lead to dementia

Join the movement. Invest in positive change.

Become a member of The Dementia Momentum and help determine a better future for Australia.

Individuals can become a Friend of The Dementia Momentum.

To find out more go to www.cheba.unsw.edu.au/the-dementia-momentum or to discuss your contribution, please contact:

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