



**Research to prevent,
treat and beat stroke**

2021

strokefoundation.org.au

Message from the Chief Executive Officer and Chair of the Research Advisory Committee

Stroke can be prevented and treated. Research will help us beat it.

Research is central to Stroke Foundation's mission to prevent stroke, save lives and enhance recovery. We champion initiatives and support individuals with the potential for significant impact in realising our vision for a world free from disability and suffering caused by stroke. As a small organisation with an ambitious vision, we play a vital role at the start of the research pipeline.

With the generous support of our donors, we provide seed funding to get projects started by supporting early and mid-career researchers to test their ideas. We partner with other organisations and bring the best minds together to tackle the toughest research questions in stroke to maximise our research impact.

At the centre of the Stroke Foundation research program are those for whom these questions matter most – the survivors of stroke, their families and carers.

At each stage of our research program, we listen, involve and engage with members of our stroke community, to ensure our research priorities address the areas that matter most to them.

Over the past two decades, high-quality evidence-based research has led to new treatments and improved diagnosis for stroke.

We are proud to say many of these ground-breaking medical advances have been Australian led, thanks to the many donors who have generously supported the Research Program. Studies highlighted in this publication including endovascular thrombectomy (clot retrieval), advanced imaging and the Mobile Stroke Unit, have paved the way for improvements in stroke treatment across the globe.

“

Over the past two decades high-quality evidence based research has led to new treatments and improved diagnosis for stroke.

”

Sharon McGowan

Stroke Foundation Chief Executive Officer



As a result of these breakthroughs, more Australians are surviving stroke. Between 1980 and 2018, overall death rates for stroke in Australia fell by three-quarters.¹ However, the impact of stroke remains far-reaching and life changing for many.

Globally, the incidence of stroke is increasing. Now, one in four people will experience a stroke in their lifetime² and Australian evidence indicates that stroke among younger people is on the rise.³ Our risk of stroke increases as our population ages and lifestyles become more sedentary.

We also don't know the long-term impact of the coronavirus (COVID-19) pandemic. Evidence is emerging of the direct and indirect consequences of the pandemic, as well as opportunities to ensure lessons from the experience are maximised to benefit health outcomes moving forward. This includes investigating new approaches to disease prevention, telehealth and tools for accelerating the translation of research into practice. There is also evidence from the United States and Europe suggesting COVID-19 may be linked to an increase in stroke among younger people.⁴

With acute stroke treatments significantly improved, we must now turn our attention to stroke prevention and recovery. There is still so much we don't know about the brain and its ability to recover from stroke. Each stroke is unique to the person impacted and every recovery journey is different.

We need to understand so much more about how best to support survivors to recover well, to return to work, to study and to live their lives.

Finding the right keys to unlock the door to brain recovery is the next frontier and this is why we will continue to stand with our researchers, to help give our brightest minds the space, funds and support they need to take the first steps towards this goal.

Thanks to generous families our research program has expanded in recent years with three new dedicated endowment funds. These endowment funds create new opportunities for targeted research.

We are on the cusp of some exciting advancements, with governments recognising the need and potential for breakthroughs in stroke. In 2019 the Australian Government announced a \$220 million 10-year, Medical Research Future Fund (MRFF) Cardiovascular Health Mission to tackle heart disease and stroke. Stroke Foundation's Research Programs will feed into and build on the Mission's work.

We are ambitious and determined to continue to improve the state of stroke. To invest in people and projects with the capability to reduce preventable stroke and transform outcomes for the many thousands of Australians who experience stroke every year.

We invite you to stand with us.



Sharon McGowan
Chief Executive Officer
Stroke Foundation



Professor Amanda Thrift
Chair of the Research
Advisory Committee



“

With emergency stroke treatments significantly improved, we must now turn our attention to stroke prevention and recovery. There is still so much we don't know about the brain and its ability to recover from stroke.

Professor Amanda Thrift
Chair of the Research
Advisory Committee

”

About Stroke Foundation's Research Program

Stroke Foundation champions research in stroke. Thanks to the generosity of supporters, almost \$5.3 million has been awarded to more than 200 researchers since the Research Program's inception in 2008.

Areas of study	Number of grants awarded
Recovery	140
Treatment	25
Prevention	2
Secondary prevention	6
Young stroke	6
Childhood stroke	4
Carers	3
Future leaders	5
Fellowship	27

Stroke Foundation's Research Program aims to support and translate high quality research into changes in practice, policy and knowledge. Its outcomes will improve quality of life for people with stroke, their families and carers.

To achieve this goal we:

- Advocate for more funding for stroke research.
- Empower researchers and clinicians to explore their research questions, to test their concepts and implement their innovative ideas.
- Partner with like-minded organisations to further our mission and support breakthroughs in stroke prevention, treatment and recovery.

History

Research has been an integral part of Stroke Foundation since it began in 1983.

The organisation was originally known as the Stroke Research Foundation. It later became the Australian Stroke and Neurosciences Institute, with its dedicated research arm, the National Stroke Research Institute.

In 1996, stroke was identified as a priority area of need and the organisation became known as Stroke Foundation.



Over the last 20 years, research in stroke has been transformational. Not only do we now have more treatments to offer patients, but the evidence gaps are closing with so many researchers from different disciplines focused on this field and passionate about making a difference.

*Professor Dominique Cadilhac
Cardiovascular Health Mission Expert Advisory
Panel Member and 2019 Stroke Foundation
President's Achievement Award recipient*



Living Guidelines for Stroke Management

Stroke Foundation is partnering with global evidence translation experts Cochrane Australia to deliver Australia's first pilot of living guidelines.

Living guidelines accelerate the impact of investment in health and medical research by rapidly translating findings into reliable, actionable guidance that can be used by health care professionals to deliver better care.

Development and delivery of the Guidelines empowers patients to be actively involved in their own care by providing an accessible and single source of truth that can be used to inform discussions.

The project is supported by the Australian Government's MRFF.



New evidence emerged that extended the time-window for clot retrieval treatment for some stroke patients from six hours to 24 hours. In the past it has taken several years to update guidelines but with the living approach, guidelines were drafted within weeks of new evidence being published and they were finalised and approved by the NHMRC within months. This led to changes within the health system and more Australians accessing life-changing stroke treatment.



*Professor Bruce Campbell
Stroke Foundation Clinical Council Chair*

Living Stroke Guidelines Pilot Project

- › First national living evidence-based guideline.
- › Over 90 content experts, 28 survivors of stroke and carers involved.
- › Living mode since November 2019.
- › Around 400 abstracts screened monthly.
- › >More than 130,000 page views of the guidelines.

informme.org.au/guidelines

NATIONAL
COVID-19
CLINICAL
EVIDENCE
TASKFORCE



This innovative project has paved the way for other conditions to adopt a similar model, including the National COVID-19 Clinical Evidence Taskforce providing clinicians with up-to-date, evidence-based guidance in managing the coronavirus (COVID -19).

Endovascular thrombectomy

Stroke Foundation was at the forefront of research into this procedure that has changed the way stroke is treated nationally and internationally.

In 2012, Stroke Foundation provided an Early Career Fellowship Grant to now Professor Bruce Campbell. This grant, partnered with project funding from the Heart Foundation, the National Health and Medical Research Council (NHMRC) and The Royal Melbourne Hospital Foundation supported the Endovascular Therapy for Ischaemic Stroke with Perfusion-Imaging Studies (EXTEND-IA) study. They investigated the use of clot removal in stroke patients with large clots coupled with clot dissolving treatment.

The results of this study changed clinical practice in Australia and worldwide. It has provided a foundation for future advancements including extending stroke treatment time frames from six hours to 24 hours in some patients.

Cardiovascular Health Mission

Stroke Foundation was part of a major advocacy effort which led to the Australian Government's 2019 announcement of a \$220 million 10-year targeted Cardiovascular Health Mission. It is being delivered through the MRFF.

This dedicated research pool for cardiovascular health is supporting Australian researchers to make game-changing discoveries.

It will help develop a global biotech industry and enable the implementation of changes in healthcare.

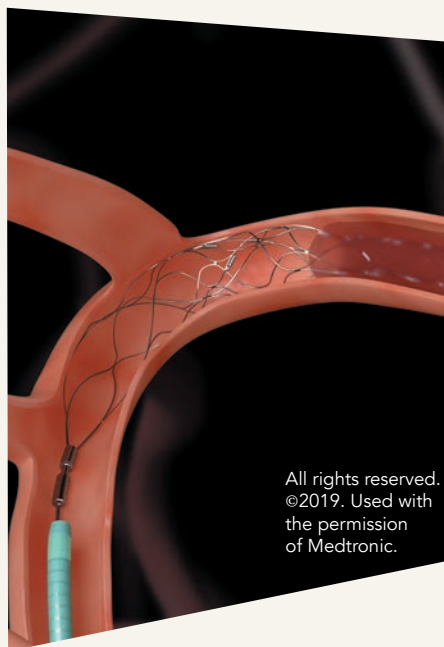
Expansion of telehealth services in treatment and care of stroke across Australia

The use of telehealth to overcome current geographical barriers to stroke treatment and care is actively promoted by Stroke Foundation.

The COVID-19 pandemic extended this technology's use from emergency treatment to rehabilitation.

Stroke Foundation's Research Program provided a solid foundation from which to build these services.

Stroke Foundation responded early in the pandemic, bringing together the national and international stroke research community, and compiling the best available evidence and guidance for delivering telehealth in rehabilitation for Australian clinicians. Disseminated via the Stroke Foundation's health professional online community InformMe (www.informme.org.au), it has guided the care of thousands of Australians. This will be an emerging area for investigation in years to come.



All rights reserved.
©2019. Used with
the permission
of Medtronic.



Felix Schebeci, survivor of stroke.

Profile

Dr Andrew Bivard University of Melbourne

2009 Fellowship, 2013 and 2014
Small Project Grant, 2016 Seed Grant
– Modafinil in Debilitating fatigue
After Stroke (MIDAS)

Dr Andrew Bivard has been awarded several Stroke Foundation grants which served as solid building blocks in his research career.

The most recent was in 2016, when Dr Bivard received a \$50,000 Seed Grant enabling a phase 2 single-site clinical trial aimed at alleviating post-stroke fatigue (MIDAS), by using a common drug to treat sleep disorders. The trial's positive results led to a substantial charitable donation from the Greater Charitable Trust in Newcastle and a \$1 million NHMRC grant award in 2020 to support a larger study.

This research has the potential to transform the lives of thousands of people recovering from stroke, given up to 70 percent of survivors experience fatigue not improved by any amount of rest.



The funding was fantastic. This was my first clinical trial which provided a lot of broad experience which I have continued to leverage. This grant scheme is essential for building early career researchers.

Dr Andrew Bivard



Why we fund stroke research

Stroke is one of Australia's greatest health challenges. It changes lives in an instant and its impact extends well beyond the individual to families, the community, the health system and economy.

Stroke has long been recognised as being among Australia's most costly disease groups.⁵ In 2020, it is estimated the economic impact of stroke in Australia was \$6.2 billion in direct financial costs and a further \$26.0 billion in lost wellbeing.⁶

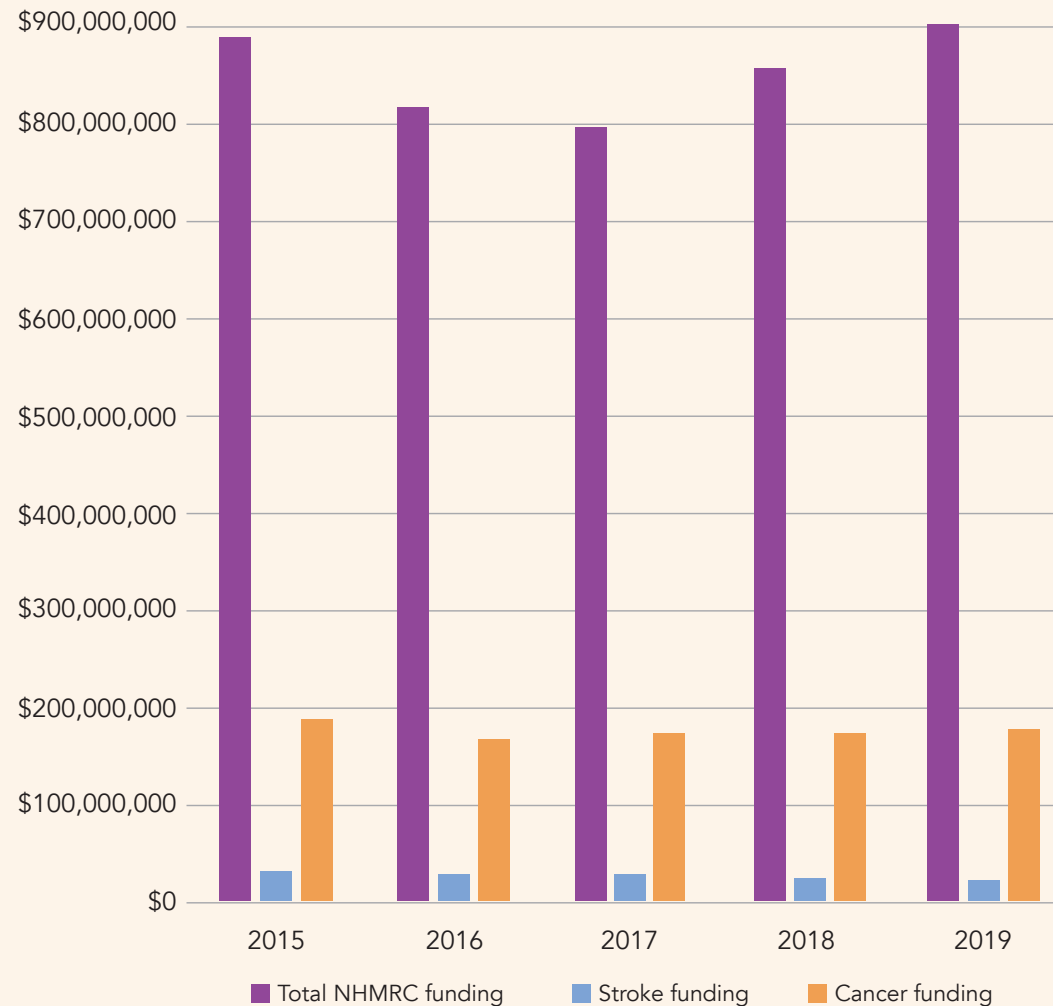
Despite the shocking statistics and devastating impact of stroke on the Australian community, stroke-related research continues to be under-represented in funding support.

Stroke attacks the brain, the human control centre. Research is the only way to unlock the mysteries of the brain and take important steps towards achieving breakthroughs in stroke prevention, treatment and recovery that will benefit generations to come. However, this work takes time and a great deal of funding.

There is an opportunity to make a difference.

Applications for Stroke Foundation research grants are highly competitive, and many worthy projects cannot be funded due to the funds available. Increased investment will result in a greater number of worthwhile projects being funded.

NHMRC support for stroke research⁷



Lived experience guides the way

Lived experience of stroke is the cornerstone of Stroke Foundation's Research Program. People living with stroke are uniquely placed to help guide researchers in their direction and study design.

The importance of lived experience, or consumer involvement and engagement, has been recognised nationally and internationally, and is now required for Australian Government funding.

Stroke Foundation plays an important role in connecting those with lived experience directly with researchers.

Meredith Burke

Meredith was 39 when stroke changed her life in an instant.

At first Meredith tackled the physical impacts of stroke, re-learning to walk and talk, but her recovery journey did not end when she left rehabilitation.

Meredith suffered debilitating fatigue and sensory and cognitive issues that made returning to her roles in vocational training and as a marriage celebrant too difficult. It was not how Meredith anticipated her life would be.

As a younger survivor of stroke, Meredith felt strongly about helping others who may find themselves in a similar situation. Meredith has used her lived experience to contribute to a number of research trials and is now a Consumer Consultant on the i-Rebound project and is a Consumer Representative on the Stroke Research Register – Hunter (University of Newcastle).

Through these roles, Meredith is thrilled to be able to help shape the way researchers communicate with survivors of stroke with compassion and by making information clear, accessible and timely to get the best outcomes for all.



Change can only happen when you have evidence a concept works. Research is that crucial first step to making changes that can improve lives.

*Meredith Burke
Survivor of stroke*



Partners in research

Stroke Foundation partners with like-minded organisations and governments to maximise its impact and achieve its goals. Research Partnerships include:

Australian Stroke Alliance

The Australian Stroke Alliance has its eyes on the skies and is developing brain scanners light enough to travel in aircraft and road ambulances. This study has the potential to radically transform access to early pre-hospital treatments and dramatically improve stroke outcomes for people with stroke in regional and rural areas who are currently at a geographical disadvantage. Initial research was funded by a \$1 million grant as part of the MRFF Frontiers Initiative. Further funding support is being sought.

The Alliance brings together more than 30 leaders from key academic, health, consumer and commercial agencies. It includes the University of Melbourne, The Royal Melbourne Hospital, Ambulance Victoria, Royal Flying Doctor Service, Council of Ambulance Authorities, RMIT University, Stroke Foundation and Neurosciences Victoria.



The Royal Melbourne Hospital and Ambulance Victoria – Stroke Ambulance

Australia's first Stroke Ambulance or Mobile Stroke Unit (MSU) has paved the way for emergency stroke treatment. The Stroke Ambulance brings the emergency department to the patient. It has slashed treatment times, improving outcomes for stroke in Melbourne since it began operation in November 2017.

The Stroke Ambulance is a purpose-built ambulance with onboard brain scanner and staffed by a neurologist, nurse, radiographer and two paramedics.

Stroke Ambulance treatment times are 74 minutes quicker than the average hospital treatment time nationally.

Evidence from the Melbourne trial is being used by Stroke Foundation to advocate for the roll out of Stroke Ambulances nationally. In November 2020 the New South Wales Government announced \$10 million for its own MSU research pilot.

Results have also contributed to international evidence supporting this innovative approach for diagnosing and treating stroke.

The Melbourne based Stroke Ambulance is being delivered in a partnership between Stroke Foundation, the Victorian Government, Ambulance Victoria, Royal Melbourne Hospital (RMH), The Florey Institute of Neuroscience and Mental Health, RMH Neurosciences Foundation and The University of Melbourne. It has also secured funding support from the NHMRC.

The Australian Paediatric Acute Code Stroke (PACS) study

The Australian Paediatric Acute Code Stroke (PACS) study will transform the care of children with stroke. Stroke Foundation has partnered with the Murdoch Children's Research Institute, major paediatric hospitals around Australia, and families impacted by stroke, in this world first research project. In this partnership we have designed, developed and will evaluate diagnosis and treatment pathways for children with suspected stroke. The project aims to improve survival outcomes and reduce potential lifelong disability for these children.

The study received \$4 million through the MRFF Cardiovascular Health Mission in 2020.

Profile

Associate Professor Mark Mackay

2013 Small Project Grant,
Characterising brain behaviour
relationships in childhood stroke
using diffusion weighted magnetic
resonance imaging

2012 Small Project Grant,
Communication and swallowing
problems following childhood stroke

2009 Small Project Grant, Developing
strategies to decrease lag time to
diagnosis in paediatric stroke

Associate Professor Mark Mackay has established himself as a key voice in childhood stroke in Australia. His work is changing the lives of our littlest stroke survivors.

Associate Professor Mackay received a number of grants through the Stroke Foundation Research Program, helping to build a strong research profile.

He is the Australian Paediatric Acute Code Stroke (PACS) study Chief Investigator, a Senior Neurologist at the Royal Children's Hospital Melbourne and a Clinician-Scientist Research Fellow at the Murdoch Children's Research Institute.

Associate Professor Mackay is aiming to transform the care of children with stroke by dramatically decreasing time to diagnosis and increasing the number of children receiving emergency stroke treatment.



I am proud to be involved in this research, which has the potential to change the way stroke is treated in children nationally and internationally.

Associate Professor Mark Mackay



Stroke Foundation Research Program Grants

Stroke Foundation's Research Program grants provide a platform for early and mid-career researchers to expand their knowledge and drive improvements in stroke prevention, treatment and recovery.

Types of grants provided:

- › **Seed Grants:** Grants of up to \$70,000 for pilot or feasibility studies informing larger, nationally competitive grant submissions to the NHMRC, MRFF and other granting bodies.
- › **Endowment:** Delivered in the terms of the individual endowment agreement. For example, may target specific topic areas or career stage.
- › **Targeted Government:** Stroke Foundation implements grants on behalf of governments to address areas of need within stroke research.
- › **Partnerships:** Stroke Foundation regularly partners with a range of organisations to fund larger research projects and ground-breaking initiatives in stroke. The multi-disciplinary research projects are vitally important as they significantly impact the direction and delivery of health care in Australia.

Stroke Foundation focuses its research grants on the areas of greatest need, ensuring any investment is maximised.

Areas of need are determined annually by the organisation's expert Research Advisory Committee and the Stroke Foundation Consumer Council. Decisions are informed by evidence obtained through the Stroke Foundation's national audit program.

Seed and Endowment Grants are awarded annually.

All applications undergo a competitive assessment. They are scored and ranked by independent and external reviewers, representing some of the leading minds in stroke, with funding being awarded to the highest-ranking applications.

Historically, Stroke Foundation has also offered Future Leader Grants and Small Project Grants.

2021 Research Advisory Committee

The Research Advisory Committee oversees Stroke Foundation's Research Program. The Committee includes experienced researchers from across Australia who volunteer their time to drive improvements in stroke understanding.

Professor Amanda Thrift (Chair)

Epidemiologist, Head of Stroke and Ageing Research, and Senior Research Fellow, Monash University.

Ms Brenda Booth OAM Survivor of stroke, Consumer Representative and Registered Nurse.

Dr Caleb Ferguson NHMRC Emerging Leadership Fellow & Heart Foundation Postdoctoral Fellow at the Western Sydney Nursing & Midwifery Research Centre and holds a conjoint appointment at Western Sydney University and Western Sydney Local Health District.

Associate Professor Emma Power Speech Pathologist and academic at the University of Technology Sydney.

Professor Ian Kneebone Optimising Mental Health and Well-being stream of NHMRC funded Centre of Research Excellence in Aphasia.

Associate Professor Nadine Andrew Senior Research Fellow with Peninsula Clinical School, Monash University and an NHMRC Early Career Fellow.

Professor Mark Nelson Professor and Chair, Discipline of General Practice, School of Medicine and Senior Member Menzies Institute for Medical Research, University of Tasmania, Hobart Australia.

Dr Eleanor Horton Carer representative and Senior Lecturer at the University of the Sunshine Coast and Nursing Fellow at the Sunshine Coast Hospital and Health Service.

Profile

**Associate Professor
Judith Katzenellenbogen
University of Western Australia**

2018 Stroke Foundation Seed Grant

Early process evaluation: Real-world data to inform better implementation of an Aboriginal stroke rehabilitation trial.

Associate Professor Judith Katzenellenbogen received grant funding to support an Australian first trial, Healing Right Way. The trial aimed to address the gap in service delivery for Aboriginal people.

Associate Professor Katzenellenbogen's focus was on developing and implementing evaluation methods for health interventions incorporating a cultural protocol.

Stroke Foundation funding was a stepping stone to help Associate Professor Katzenellenbogen broaden her research portfolio which covers stroke, heart disease and Aboriginal health generally. This important work has the potential to improve recovery for thousands of Australians, given Aboriginal people are 1.6 times as likely to be hospitalised with stroke and 1.3 times as likely to die from stroke, than non-indigenous Australians.⁸



“

The important thing about the evaluation is that we are collecting and analysing data as we go, rather than only using information looking backwards once the trial is finished. Ultimately we want patients and their families to receive optimal care and support.

Associate Professor Judith Katzenellenbogen

”

Endowment Grants

Stroke Foundation has welcomed the addition of three endowment funds to its Research Grant Program in recent years.

These grants were established by generous donations from families who have been personally impacted by stroke and have decided to leave a legacy to advance stroke research.

Endowment Grants are investments in dedicated areas of focus determined by donors in consultation with Stroke Foundation. They are investments into research into specific areas of stroke close to the families' hearts. Public donations build on the initial endowment gift to enable future grants to be awarded.



Nancy and Vic Allen Stroke Prevention Memorial Fund

Introduced for the first time in the 2021 Research Grant round, this grant aims to stop stroke

before it happens. Valued at up to \$100,000 over two years for researchers of any career stage, to further primary and secondary stroke prevention.

The grant has been made possible through the generosity of the late Vic Allen, who was passionate about preventing stroke after witnessing the devastating impact multiple strokes had on his beloved wife Nancy.

Vic envisioned a future where the tragedy of stroke would be greatly reduced. The Fund encourages stroke prevention research combining best practice medical care, and evidence-based integrative care.

We acknowledge with sincere appreciation Ava-May Morgan, retired Trustee of the former Nancy & Vic Allen Stroke Prevention Fund, for her significant stewardship in establishing this new Endowment Fund. It will create a lasting legacy for Vic Allen's vision for stroke prevention.



The first Nancy and Vic Allen Stroke Prevention Memorial Fund recipient was Professor Coralie English from the University of Newcastle. The Fund is supporting development of an online program to prevent recurrent stroke and support long-term health and wellbeing.

The "i-REBOUND" online resource will be designed in partnership with survivors of stroke to make sure it is accessible for all, including people with aphasia. The website will include resources such as exercise videos, menus and cooking demonstrations, featuring people with stroke.



Tim Glendinning Memorial Fund for Young Adult Stroke

Introduced in 2018, the Tim Glendinning Memorial Fund supports young adults affected by stroke.

Tim Glendinning sadly lost his life to stroke at the age of just 36. Tim had seven strokes in 17 years – each one impacting his physical and mental health and quality of life.

Goals of the Fund:

- › Provide support and advice to young adults with stroke and their families.
- › Improve the environments in which young adults with stroke are provided care.
- › Support research into undiagnosed stroke causes.
- › Fight stigma that young adults may feel after stroke.



Melbourne researcher Karen Borschmann and her project

team were awarded the first Tim Glendinning Memorial Research Grant to identify current service gaps and determine what was important to younger survivors of stroke and their carers to help in their recovery.



Gavin Paul Bennier Memorial Research Fund

The Gavin Paul Bennier Memorial Research Fund focuses on the rare brain disorder Cerebral Amyloid Angiopathy (CAA).

This disorder causes bleeds on the brain and is more commonly associated with dementia and older people. CAA caused Gavin to have several strokes and tragically led to his death in 2017.

The Fund supports research focused on:

- › Early diagnosis, treatment and prevention of CAA induced stroke in young people.
- › Identifying a young person’s predisposition to cerebral amyloid angiopathy and CAA induced stroke.
- › Understanding factors and experiences common in young people pre-stroke, during treatment and post-stroke recovery.
- › Facilitating the return to work of young people impacted by stroke.

The Gavin Paul Bennier Memorial Research Grant was first awarded in 2019 to Professor Vincent Thijs from The Florey Institute of Neuroscience and Mental Health.

Profile

Dr Barbara Wolfenden

2010 Honours Research Grant

Research Assistant on
Co-designing a health service model
for the young stroke community,
funded by the Tim Glendinning
Memorial Grant.

Dr Wolfenden is a professional researcher and a survivor of stroke. Dr Wolfenden's own experience with stroke has a strong influence on her work and her desire to make life better for younger people with stroke and their families.

Dr Wolfenden initially received a Stroke Foundation Honours Research grant to support her research into returning to work and identity after stroke. Dr Wolfenden achieved First Class Honours and was offered PhD candidacy and a government scholarship which helped further her research career.

Dr Wolfenden's current work as a research assistant has provided her with an opportunity to be a part of further research in the area of stroke in young adults.



This work is critically important because there is currently no health service or clinic specifically designed to cater exclusively to their needs, which include driving, working, studying, forming life-long partnerships, pregnancy and parenting.

“

I knew first-hand where some of the gaps lie. In order to shine a light on them and contribute to influencing change, I needed to do the research and publish it, for the benefit of young survivors of stroke.”

Dr Barbara Wolfenden

Grants

Targeted Government Grant – Return to Life, Return to Work

Working age people impacted by stroke are set to benefit from research into innovative recovery and rehabilitation clinical interventions.

Stroke Foundation is administering the “Return to Life, Return to Work” research initiative after receiving a \$1 million dollar grant from the Australian Government through the MRFF.

Grant recipients:

› Professor Natasha Lannin, Monash University

The grant is funding a pilot project to test the feasibility and potential benefit of building on current clinical rehabilitation by adding an embedded 12 week targeted vocational rehabilitation.

› Professor Vincent Thijs, The Florey Institute of Neuroscience and Mental Health

Profile

Professor Vincent Thijs

2019 Gavin Paul Bennier
Memorial Grant

2019 Return to Life, Return
to Work Grant

Professor Vincent Thijs received two major grants in 2019, further enhancing his well-established career as a neurologist and clinical researcher in Australia and in Belgium.

Professor Thijs is passionate about providing valuable insights into stroke prevention and acute stroke treatment, with a particular interest in how stroke care can be improved for younger people.

He is leading the way internationally by investigating the prevalence of the rare brain disorder Cerebral Amyloid Angiopathy (CAA) in young survivors of stroke.

Professor Thijs is also leading Australia's first multicentred clinical trial of Perispinal Etanercept in chronic stroke. Etanercept is a drug used to relieve inflammation and pain and has the potential to help some people with stroke optimise their recovery.



International evidence shows incidence of stroke among young people is increasing, so we must do more to ensure treatments and supports are available for them.

Professor Vincent Thijs



Stroke in Australia

A **stroke occurs**
every



19 minutes
in Australia³

Around **80%** of **strokes**



can be prevented⁹

Only 16% of people can
recall two or more



signs of stroke¹⁰

Stroke is on the **rise** in



people aged 35
to 54 years³

The **economic cost**
of stroke exceeds
\$6.2 billion annually



and \$26 billion in **lost**
wellbeing⁶

Stroke is a **leading**



cause of **disability**⁶

Conclusion

Every breakthrough in stroke prevention, treatment and recovery begins with an idea. That idea was sparked by a desire to improve health outcomes in an area of need.

Stroke Foundation is committed to standing with our clinicians, researchers and community to help foster these ideas.

Stroke research is a core part of our mission to prevent stroke, save lives and enhance recovery. By supporting research, we are fostering the current and next generation of leaders, who will pave the way forward to the next innovation in stroke prevention, treatment and care.

Stroke Foundation's Research Program funds annual research grants to promote stroke research capacity and generate new stroke knowledge. Since 2008, Stroke Foundation has awarded more than \$5 million in research grants to more than 200 researchers.

These researchers have gone on to do amazing things, and change stroke treatment and care nationally and internationally. These researchers have saved and improved lives.



Research takes time and a great deal of funding. With your help we will give our leading minds the encouragement, time and support to deliver the next breakthrough.

*Sharon McGowan
Chief Executive Officer
Stroke Foundation*









References

1. Australian Institute of Health and Welfare. 2020. Australia's health 2020: Australia's health snapshots. Canberra: AIHW.
2. GBD 2016 Lifetime Risk of Stroke Collaborators, Feigin VL et al. 2018. Global, Regional, and Country-Specific Lifetime Risks of Stroke, 1990 and 2016. *New England Journal of Medicine*. 379(25):2429-2437.
3. Deloitte Access Economics. 2020. No postcode untouched, Stroke in Australia 2020.
4. Fifi JT, Mocco J. 2020. COVID-19 related stroke in young individuals. *Lancet Neurology*. 19(9):713-715.
5. Australian Institute of Health and Welfare, Disease Expenditure in Australia (13th June 2019). Available at: <https://www.aihw.gov.au/reports/health-welfare-expenditure/disease-expenditure-australia/contents/australian-burden-of-disease-groups>.
6. Deloitte Access Economics. 2020. The economic impact of stroke in Australia, 2020.
7. National Health and Medical Research Council. (2020). Research funding statistics and data.
8. Australian Institute of Health and Welfare. 2020. Australia's health 2020: in brief. Australia's health series no. 17 Cat. no. AUS 232. Canberra: AIHW.
9. O'Donnell et al, 2016 'Global and regional effects of potentially modifiable risk factors associated with acute stroke in 32 countries [INTERSTROKE]: a case-control study', *Lancet*: 388: 761-75.
10. Spicer, David, 'Stroke Foundation. 2020 National Survey Report.', Colmar Brunton, 17 September 2020.



How to get more involved

-  **Give time** – become a volunteer.
-  **Raise funds** – donate or hold a fundraising event.
-  **Speak up** – join our advocacy team.
-  **Leave a lasting legacy** – include a gift in your Will.
-  **Know your numbers** – check your health regularly.
-  **Stay informed** – keep up-to-date and share our message.

Contact us

-  **1300 194 196**
-  **strokefoundation.org.au**
-  **[/strokefoundation](https://www.facebook.com/strokefoundation)**
-  **[@strokefdn](https://twitter.com/strokefdn)**
-  **[@strokefdn](https://www.instagram.com/strokefdn)**

Stroke Foundation | 1300 194 196 | strokefoundation.org.au

National Office: Level 7, 461 Bourke Street, Melbourne VIC 3000

We also have offices in Sydney, Brisbane, Perth and Hobart.

ABN 42 006 173 379