



NFMRI



2025

ANNUAL  
REPORT

## About Us

Founded in 1977, the National Foundation for Medical Research and Innovation (NFMRI) is a not-for-profit organisation that is entirely independent. It is not affiliated with any university, hospital, government or state body. The Foundation provides financial and in-kind, skill-based support to advance research projects whilst conserving and building its capital base.

The Foundation is classified as a health promotion charity and is endorsed as a Tax Concession Charity (TCC) with Deductible Gift Recipient Item 1 (DGR 1) status.

## Our Mission

“To advance innovations in medical research related to the nature, prevention, diagnosis, treatment and incidence of disease and other health problems that have a significant impact on the health of humans.”

## Our Vision

NFMRI believes more than funding alone is needed to advance discoveries and innovations. Our culture is one where we look to make a social investment in medical research. By partnering with researchers to provide support and knowledge, and facilitating connections with industry, we aim to maximise the social returns from our grants. The Foundation is looking to become a partner of choice with both researchers and funders of research, and a national ambassador for medical research and innovation.

Our vision is to be recognised as the leading Foundation, efficiently and effectively supporting biomedical research, advancing innovations and creating impact.

## Our Approach

NFMRI takes a uniquely proactive approach by partnering with grant recipients to provide support along the innovation pathway. It is a prerequisite that we only fund research of the highest quality. When reviewing applications and research projects, NFMRI looks for more than good science. We also assess the ability and willingness of the researcher and the institution to collaborate and to plan as well as manage the research to enable it to advance. Most importantly, we analyse the potential commercial and social success of the innovation.

NFMRI also considers the need for and size of any potential impact, the potential for the research and innovation to make a significant difference and whether the opportunity may become attractive to a potential next-step partner who can make a product or service accessible to the community. To do this, we harness skill sets from a variety of scientific, clinical, business development, commercial, industry and financial sources.

The Foundation is looking to increase its impact by partnering with other trusts and foundations, Private and Public Ancillary Funds (PAFs and PuAFs) and corporate donors. NFMRI does not proactively solicit donations, but we are always grateful for the donations and bequests that we do receive.

## Message from our Chairman



We continued to share and celebrate the success stories of both our current and past grant recipients over the course of 2025. The year ended on a high with our Annual Awards Night held in Sydney on the 26<sup>th</sup> November 2025. That evening, we were thrilled to announce not just one, but two Dr. John Raftos AM Awards. The Medal is traditionally awarded every two years to a researcher supported by NFMRI demonstrating significant advancement and translation of their innovation. However, with the continuous flow of success stories and impact shared with us, our Board found it exceptionally difficult to compare both shortlisted candidates and ultimately decided it was appropriate to award two: one to Prof. Roger Chung at Macquarie University and the other to Prof. Nicholas Huntington at Monash University.

I'm pleased to report that since the Foundation's establishment in 1977, over \$25 million in grants has been committed to support innovative research projects, covering various diseases and conditions across the nation. Our focus on innovation rather than indication or diseases enables us to be flexible and support innovations that will have impact across various conditions.

Over many years, NFMRI's collective achievements have been made possible thanks to our generous benefactors, supporters and partners, including individuals and organisations, who generously contribute their time and expertise to help make a difference. Our work and achievements would not be possible without them.

Partnerships continue to assist NFMRI to scale its activities and offer a source of targeted funding that supports researchers to de-risk their innovations and discoveries so that they can reach the communities who need them sooner. We are grateful for the past support received from The Mason Foundation, The NSW Community Foundation, the Nicholas & Phyllis Pinter Trust and the Vernon Sinclair Fund (all managed by Equity Trustees). With their help, we are supporting several promising research projects in the areas of Alzheimer's disease and cancer.

We also thank an anonymous donor whose support over previous years has enabled the funding of innovative research into diseases affecting children and youth. Through generous support from State Trustees Australia Foundation, we are together supporting cancer research in Victoria.

On behalf of the Board, I would like to acknowledge and thank our management for their unwavering dedication and strategic guidance. Dr. Noel Chambers, with the help of Mrs. Nancy Ranner and Mrs. Linda Hearne, continues to lead the Foundation towards success and community impact. The team's visionary leadership combined with a strong, harmonious culture across our Board, RAC and management enable the Foundation's achievements to come to fruition.

I wish to thank my fellow Directors for their stewardship, dedication and passion they continue to bring to the organisation. Likewise, our Board greatly appreciates the ongoing support and advice received from our expert RAC. Composed entirely of expert volunteers, both our Board and RAC members have a unique set of skills and experience instrumental to the Foundation's success.

We particularly thank Mr. Scott Glover from Mercer for carefully managing the Foundation's investments in consultation with our Board. We also greatly appreciate Mr. Mark Boyle and the Nexia Australia team for their continued professional work carrying out yet another seamless annual audit of our Foundation.

We are very grateful for the ongoing support and pro-bono legal advice from Ms. Alison Choy Flannigan of Hall & Wilcox, as well as complimentary venue access and administrative support from McGrathNicol.

We greatly appreciate and value our stakeholders' support and are confident that our benefactors and partners will be pleased with the high-quality research projects their gifts and assistance have enabled.

Dr. Rob Sauer  
Chairman

## Message from our CEO



Over the past year, our entire team has continued to strive to achieve the Foundation's mission applying a strategy aiming to advance and de-risk innovations with the potential to create new medicines, vaccines, diagnostics, devices, tools and biologicals. NFMRI uniquely supports 'make-or-break' killer studies performed by external experts. Unlike traditional sources of funding where grants are spent within a researcher's own laboratory, it is a requirement that our funding is used to support expenses relating to accessing external capability and capacity. Once validated, these innovations become more valuable to the institutions enabling them to secure a more suitable next-step partner. Likewise, our funding can fail research quickly, thereby redeploying valuable resources towards another potential success.

Our grants are more than just money. We work closely with researchers, providing advice and assistance where required. We also always do our very best to harness the expertise of our team and our network to support researchers to advance their innovation. Our support is not only helping drive outcomes; it is also importantly changing mindsets and culture throughout the sector.

With an ever-increasing number of medical research success stories and statistics to boot, NFMRI continues to demonstrate the need for this targeted support by gathering evidence of impact across various indications, institutions and innovation type. Our robust support helps break traditional barriers and accelerates discoveries.

As the year unfolded, we continued to expand and improve upon our purpose-built systems, processes and specialist capability. This year, we increased our customised online submission platform into accepting full applications. These systems support the delivery of our strategy and improve efficiencies with our small team which better enable us to identify and support potential innovations that may deliver community benefits.

One of our key priorities is to achieve impact collectively. To do this, we work with other like-minded individuals, organisations, charities and philanthropic groups. When funding is received from a partner or donor, the entire amount is allocated towards a grant that aligns with their giving needs. Not only this, but we also work very closely with others to share our findings and experiences, as well as assist other foundations to provide them with guidance and advice where it is requested.

Through our partnership with The Mason Foundation (managed by Equity Trustees), we were able to support the following Alzheimer's disease researchers in 2025: Dr. Jenna Ziebell (The University of Tasmania), Dr. Dorothy Wai (Monash University), Prof. Kate Schroder (the University of Queensland), Dr. Rebecca Nisbett (The Florey), Prof. Isabelle Lucet, (WEHI), Dr. Emma van der Westhuizen (St. Vincent's Institute of Medical Research), and Prof. Bryce Vissel (St. Vincent's Hospital Sydney). Also, with support received from State Trustees Australia Foundation, we have been able to support Dr. Remy Robert's cancer research project at Monash University.

Lastly, we are pleased to be supporting Prof. Vito Ferro's research at the University of Queensland as well as Prof. Michael Rogers's research at the Garvan Institute of Medical Research thanks to funding provided by an anonymous partner to support research into childhood and youth diseases.

Our conference is normally held in a different state every two years. We have decided to hold our next conference in 2027 to coincide with the Foundation's 50<sup>th</sup> anniversary. 'Research with Purpose 2027,' and celebratory awards dinner will be held at the Pacific Bay Resort in Coffs Harbour in November 2027. I hope you will consider joining us then, as well as our 2026 AGM and Awards Night in Sydney.

Dr Noel Chambers,  
Chief Executive Officer

## Our Legacy

The Foundation was established in 1977 on the initiative of the late Dr Frank Ritchie who had several patients wishing to donate to medical research and for the capital to be preserved. Fundraising activities were conducted under the auspices of the initial Chairman of the Board of the Foundation, Sir Peter Abeles, and Lady Sonia McMahon.

A patient of Dr. Frank Ritchie bequeathed a substantial sum, the Stern Estate, to be divided equally between Sydney Hospital and the Foundation. The Foundation was to maintain the capital and use income to fund and facilitate ongoing medical research in perpetuity. Over the years, by way of further bequests and donations, the Foundation has built up significant capital reserves to provide income to facilitate continuing important medical research. The funds of the Foundation and the management of those funds have always been totally independent of the hospital, as has been its management structure. Following an extensive review of the sector, the Foundation updated its mission and changed its name from the Sydney Foundation for Medical Research to the National Foundation for Medical Research and Innovation in 2014.

## Past Directors and Major Benefactors

Our Foundation owes its legacy to the following Directors who have served as part of its Board and to those who contributed to the Foundation so generously. Without their vision, foresight and commitment to the Foundation, it would not be where it is today.

1979-1982	Sir Peter Abeles (Founding Chairman)	1984-1987	Mr. JW MacBean
1979-1983	Mr. ED Cameron	1984-1985	Sir William W Pettingell
1979-1983	Mr. JP Ducker AO	1987-2003	Mrs. SE Ball
1979-1983	Mr. MJ Inglis	1987-1999	Mr. RH Minter (Chairman)
1979-1982	Lady Sonia McMahon	1987-2017	Dr. V Cowlshaw Shortell
1979-1990	Mr. TE May (Former Chairman)	1995-2011	Mr. PM Bowen
1977-1982	Dr. FL Ritchie C.B.E.	2000-2003	Prof. AJ Young AO
1977-1995	Mr. BF Rose	2002-2017	Dr. J Graham OAM
1979-1982	Dr. HH Spiegel	2002-2018	A/Prof. R Garrick AM
1979-1982	Sir Ian Turbott C.M.G, C.V.O	2006-2017	Ms. J Schwager AO
1982-2007	Dr. J Raftos AM	2010-2019	Mr. K Drewery
1984-1990	Sir Gordon Jackson	2014-2019	Dr. A Bates
1984-1991	Mr. TL Lewis	1977-2022	Dr. J Dixon Hughes OAM

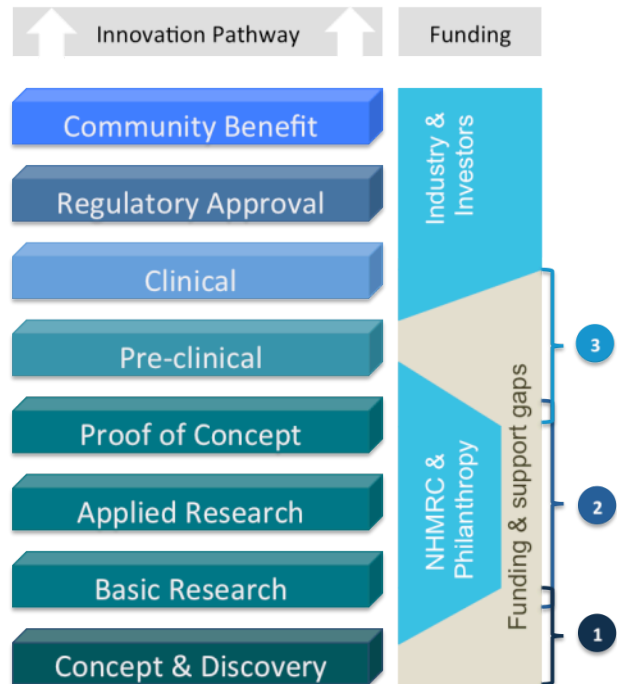
The Stern Estate  
 Josephine White and Hiltbrunner Fund  
 Estate Late Celia Margaret Paine  
 Estate Late Daqmar Wilhemine Halas  
 Estate Late Blanche Elizabeth Turner  
 Estate Late Mary Althouse  
 The Mason Foundation (managed by Equity Trustees)  
 NSW Community Foundation – Nicholas and Phyllis  
 Pinter Trust (managed by Equity Trustees)  
 The Vernon Sinclair Fund (managed by Equity  
 Trustees)

Cynthia & Patricia Gaden Fund  
 Tempe Mann Fund  
 Estate Late Bill & Shirley Westbrook  
 Estate Late Gloria Ida Prejeant  
 Estate Late Beatrice Gordon Joske  
 Estate Late James Hoadley  
 NSW Community Foundation  
 NSW Department of Primary Industries  
 Cure 4 Cystic Fibrosis Foundation  
 State Trustees Australia Foundation  
 Estate Late John Dixon Hughes  
 Anonymous donor

## Our Strategy

Historically, funding of medical research in Australia has been determined by outputs – research papers and citations validated by scientific peer review. Whilst these factors are important, the advancement of innovation, the formation of collaborations and the ability to deliver impact are the outcomes NFMRI's funding delivers.

To maximise impact, NFMRI focuses on advancing innovation. By looking outwards and supporting the gaps along the innovation pathway and applying resources, networks and knowledge, NFMRI helps philanthropy make a difference. NFMRI supports medical research in three key gap areas we call social investment portfolios.



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### **Bridging the 'valley of death'. Supporting research required to facilitate collaborator uptake and investment**

Often referred to as the 'valley of death', this is the area where strategic research studies are required to attract potential investors and industry collaborators.

Traditional funding mechanisms do not support or motivate researchers to contract research activities necessary to answer some research questions necessary to form these collaborations. These research questions are often not attractive to publications as they are 'less newsworthy' and not research undertaken by the chief investigator and their team.

By supporting small incremental studies, NFMRI can manage risk and make innovations more attractive to potential commercial partners and investors.

2

### **Support for strategic collaborative research activities focussed on advancing research and validating directions**

Providing access to the additional research skills not obtainable through currently available funding mechanisms.

Support for strategic collaborative research activities focussed on advancing innovations and validating directions is needed. NFMRI is uniquely positioned to add value to the advancement of research and innovations in preparation for potential collaborations.

By partnering with researchers, NFMRI supports collaborative research activities undertaken by other research groups that expedite the advancement of the innovation and are important for attracting potential industry partners and investors.

**1 Original Australian innovation and discovery. Frontier research not competitive for NHMRC grants**

Supporting the validation of new concepts, discoveries and intellectual property creates the foundation for innovations and community benefits of tomorrow. Young researchers, early discoveries and new paradigms need support to become competitive and stand on their own two feet.

## Portfolio Summary

Research Impact & Investment (Grant) Portfolios			Research Support	
<b>Portfolio 1</b> Original innovation & discovery	<b>Portfolio 2</b> Collaborative innovation & advancement	<b>Portfolio 3</b> Innovation uptake & transformation	Value-adding support	
Grants are available for projects and studies that would otherwise not be undertaken.			Faster innovation	
<b>Research Focus</b>	<ul style="list-style-type: none"> <li>Original and novel research investigating early innovative concepts and pathways.</li> <li>"Blue sky"</li> <li>In need of data to attract future competitive grants.</li> </ul>	<ul style="list-style-type: none"> <li>Advancement and testing of innovations.</li> <li>Research conducted by collaborators.</li> <li>"Key knowledge", "Key directions" and "Killer experiments"</li> </ul>	<ul style="list-style-type: none"> <li>Prerequisite studies to attract potential collaborators and investors.</li> <li>De-risk innovations</li> <li>Advance through the "Valley of Death"</li> <li>Commercialisation</li> </ul>	<ul style="list-style-type: none"> <li>Provide access to pro bono services, tools, networks and education.</li> <li>Provide access to external capability and capacity</li> <li>Access and skills provided will vary from project to project</li> </ul>
<b>Measures &amp; impact</b>	<ul style="list-style-type: none"> <li>Ground breaking research &amp; knowledge.</li> <li>Build capability and capacity</li> <li>Leverage funding</li> <li>Employment</li> <li>Invention disclosures</li> <li>Intellectual Property</li> <li>Impact on ERA</li> </ul>	<ul style="list-style-type: none"> <li>Advancing innovation</li> <li>Intellectual property</li> <li>Leveraged funding</li> <li>Collaborations</li> <li>Stop/go and direction setting</li> <li>Developing proof of concept</li> <li>Invention disclosure</li> <li>Linkage grants</li> </ul>	<ul style="list-style-type: none"> <li>Pass/fail- resource management</li> <li>IP advancement</li> <li>Marketing portfolio</li> <li>Collaborations</li> <li>Innovation uptake (industry)</li> <li>Investment</li> <li>Linkage grants</li> </ul>	<ul style="list-style-type: none"> <li>Industry collaborations</li> <li>Intellectual property</li> <li>Leveraged funding</li> <li>Commercialisation</li> <li>Increased knowledge and skills</li> <li>Stronger networks</li> </ul>
<b>Project</b>	< \$265,000 Up to 3 years	< \$145,000 1-2 years	< \$185,000 1-2 years	Pro Bono

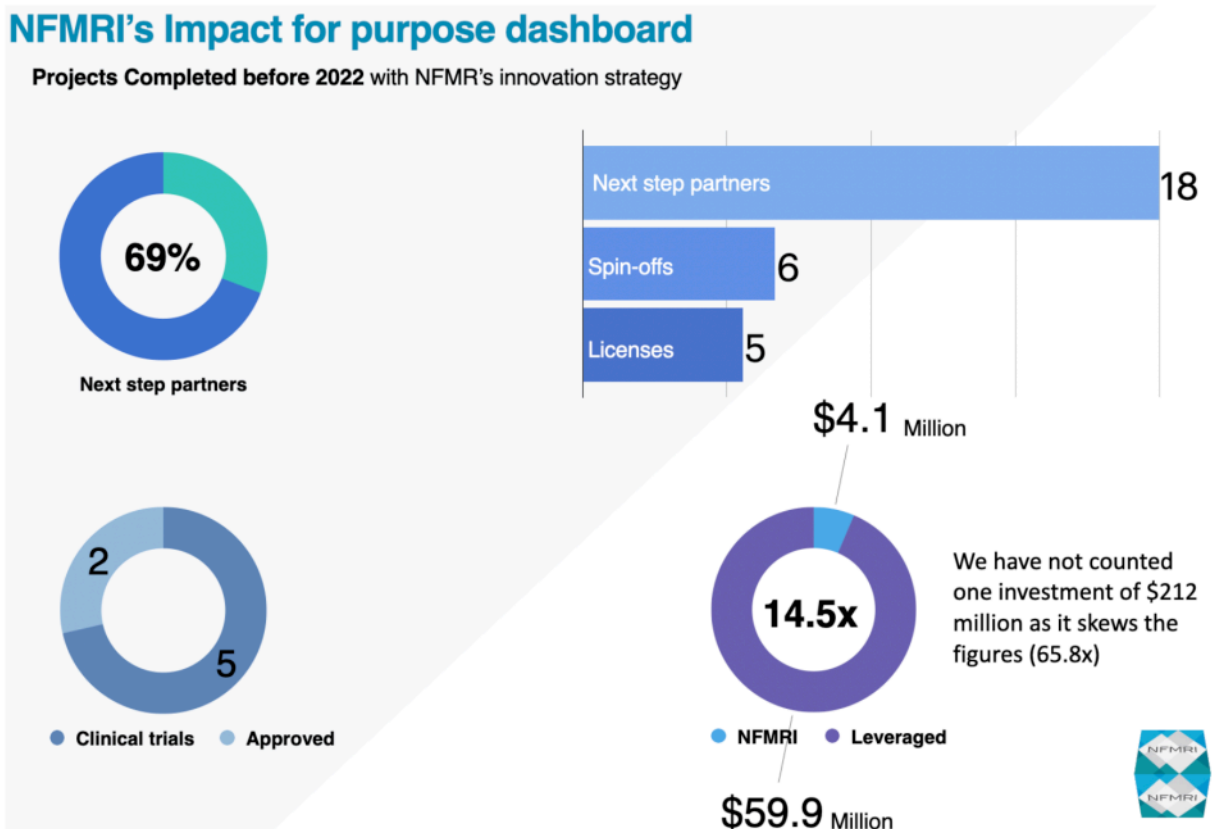
Grant amounts and durations are a guide only.

## NFMRI's Impact

Following the introduction of our strategy focused on supporting the advancement of early biomedical research innovations to enable them to attract next-step partners, NFMRI carried out an updated analysis of its strategic outcomes to date in 2024.

Although a number of research projects are ongoing and expected to succeed in attracting next-step partners, an analysis of projects commencing between 2013-2022 yielded better than expected results. Sixty-nine percent of projects supported achieved

our primary measure of success in attaining next-step partners leveraging over \$14.50 of external funding for every dollar of grant funding – a total of \$59.9 million (this excludes one project that leveraged a total of \$212 million). Five innovations have commenced clinical trials and two innovations are delivering benefits to the community. Analysis of our strategic outcomes provides evidence that what NFMRI does is reproducible and effective, irrespective of indication, disease or innovation (medicine, vaccine, biological, device or diagnostic).



*"The gap between basic research and commercial support for the discovery and development of new therapies, the so called "valley-of-death", is not just a funding gap but it is also a skills gap. Notwithstanding its notable 62% success rate in helping researchers bring their programs to next-step partners, NFMRI funding is 100% successful in helping train the next generation of Australian innovators and industry-ready researchers and leaders. The impact of this output is immeasurable."* - A/Prof Bernard Flynn, Monash University & Cincera Therapeutics



## NFMRI's Impact: Project Updates

Below are a few examples of grant updates arising from the support provided by NFMRI and our partners over recent years. Our researchers share their outcomes and outputs directly with us utilising our online progressive reporting system.



### **Prof. Nicholas Opie, The University of Melbourne and Synchron**

#### ***Safety validation of the Stentrode: a biomedical device for paralysis that converts thoughts into computer commands (2018, \$390,000)***

- NHMRC project grant, \$1,651,685
- NHMRC development grant, \$810,382
- DARPA & ONR Global, \$1,331,325
- Defense Health, \$154,823
- Funding from other external sources, \$193,000
- Spin-off company Synchron
- Synchron (Series C) brings total raised since inception to \$212,000,000. Company is backed by Bill Gates' venture fund and Amazon founder Jeff Bezos' 'Bezos Expeditions'
- Company valued at approximately \$1 billion USD
- Platform product has been implanted successfully into patients to treat paralysis

### **Prof. Wendy Cooper, Royal Prince Alfred Hospital**

#### ***Personalised medicine for lung cancer and mesothelioma (2012, \$125,000) Personalised medicine in lung cancer – massively parallel sequencing of lung tumors enriched for actionable mutations (2014, \$190,000)***

#### ***Dr. John Raftos Medal (2018, \$50,000)***

- Cancer mutation testing being used to characterise tumour pathology and identify suitable and personalised drugs for patients
- Approval of new therapies and concurrent diagnostics by PBAC and MSAC
- Implementing NGS sequencing testing to assess for specific fusions in sarcomas and head and neck cancers to improve diagnostic accuracy and identify potential targetable variants
- Promoted to Professor



### **Prof. Mark Kendall, Australian National University and WearOptimo**

#### ***Dr John Dixon Hughes OAM Medal (2017, \$50,000)***

- Led to the establishment of microwearables company, WearOptimo
- WearOptimo has received >\$30 million support from the Australian National University, Aspen Medical, Federal Government, Queensland Government and high-net-worths/ family office
- WearOptimo is in clinical stage with its unique Microwearable sensor
- Established manufacturing at its new premises in Brisbane

**Dr. Prashant Bharadwaj, Edith Cowan University**

*Analysis of neurofilament biomarkers for Alzheimer's disease, Parkinson's disease, Multiple sclerosis and childhood dementia (2023-2025, \$250,000)*

- WA Child Research Foundation, \$249,967
- Department of Health WA/ FHRIF, \$160,000
- Alzheimer's Research Australia, \$300,000
- Channel 7 Telethon grant - childhood dementia, \$100,000



**Prof. Lenka Munoz, The University of Sydney**

*Improving chemotherapy response rates in brain cancer (2013, \$396,104)*

**Dr. John Raftos AM Medal (2020, \$50,000)**

- NHMRC Ideas Grant, \$1,100,000
- NHMRC Development Grant, \$550,000
- Lin BioScience funding grant, \$1,200,000
- Promoted to Professor
- Substantial IP and out-licensing portfolio of neuro-oncology therapeutics she developed
- Licensing agreement

**Dr. Pierre Qian, The University of Sydney**

*Mu Microwave catheter for treatment of hypertension (2024-2025, \$180,000)*

- NHMRC Development Grant, \$1,200,000
- Australian Stroke and Heart research accelerator, \$200,000
- NHMRC Synergy Grant, \$380,000
- Heart Foundation Vanguard grant, \$150,000
- Australian Economic Accelerator grant, \$424,200
- McCusker Foundation grant, \$1,500,000
- Industry collaboration with Ingeneus Victoria
- Progressing towards first-in-human clinical trials (2027-28)



**Prof. Steven Wise, The University of Sydney and NanomedX**

*Durable Treatment of Peripheral Artery Disease (2019, \$95,022)*

- Sydney Local Health District - Accelerating Translation of New Cardiovascular Devices and Materials - \$361,752
- Heart Foundation Future Leader Fellow Level 3, \$593,126
- NSW Cardiovascular Initiative, \$727,423
- MTPConnect TTRA Research Project, \$739,128
- NSW Cardiovascular Senior Scientist Grant, \$746,488
- University of Sydney FMH Biomanufacturing Incubator, \$250,000
- NSW Health and Medical Research, Cardiovascular Senior Scientist grant, \$746,488
- AEA Ignite, \$322,898
- MRFF/TTRA Program, Tranche A, \$750,000
- Spin-off company NanomedX with private seed funding of over \$790,000
- Promoted to Professor of Cardiovascular Bioengineering

**Prof. Peter van Wijngaarden, Centre for Eye Research  
Australia and Enlighten Imaging**

***Translating an eye imaging biomarker for Alzheimer's disease  
to the clinic (2019, \$250,000)***

- BioMedTech Horizons 2.0 grant, (\$1m)
- NHMRC-EU Joint Programme-Neurodegenerative Disease Research Grant, (\$1.4m)
- NHMRC Ideas Grant, (\$887,500)
- Funding from multiple external sources, (\$2.6m)
- Well advanced camera prototypes
- Strong IP position
- Spin-off company Enlighten Imaging

***A retinal imaging biomarker of Alzheimer's disease (2022,  
\$40,000)***

- Project currently underway
- Promoted to Professor of Ophthalmology



**Prof. Michael Good AO, Griffith University Institute for  
Glycomics**

***Producing a GMP grade peptide conjugate vaccine for a Phase  
1 trial to prevent infection with group A streptococcus (2015,  
\$251,000)***

- Leveraged \$3,500,000 from the Heart Foundation
- Leveraged over \$750,000 of funding from external sources, including Lowitja, Snow Foundation etc.
- \$550,000 in funding and over \$500,000 in kind to fund a Phase 1 clinical trial from the Li Ka Shing Institute (Canada)
- Investment from industry
- Currently in Phase 1 clinical trial overseas
- Anticipated commercialisation through Australian NewCo establishment in 2023/24
- Leducq Foundation funding, \$5,000,000

***Manufacture and evaluation of a chemically attenuated  
Plasmodium falciparum whole parasite blood-stage malaria  
vaccine (2018, \$200,000)***

- Rotary Health Grant, \$1,035,648
- Medical Research Future Fund, \$500,000
- Private trust funding, \$570,000
- Private philanthropic donor, \$372,027
- Griffith University funding, \$334,968
- Collaborating with industry & currently in clinical trial
- NHMRC e-Asia Joint Research Program grant, \$749,918
- NHMRC Ideas Grant awarded through Monash University, \$873,271



**Prof. Bernard Flynn, Monash University and Cincera Therapeutics**

***Novel sphingolipid targeted agents for the treatment of cardiac fibrosis (2016, \$100,000)***

- Monash Research Innovation Fund (MRIF), \$50,000
- NHMRC Development Grant, \$684,000
- Spin-off company Cincera Therapeutics, \$7,000,000

***Sphingosine Kinase-1 inhibitors for the treatment of pulmonary hypertension (2020, \$110,400)***

- Spin-off company AnkeRX, \$10,791,639

***Dr. John Raftos AM Medal (2020, \$50,000)***

***PAR2 receptor modulators in pulmonary fibrosis***

- Monash MIPS Incubator Investment, \$50,000
- Monash MRIF investment, \$50,000

***Gastrointestinal-directed S1P1-receptor modulators in the treatment of inflammatory bowel disease (2021, \$135,700)***

- Commercial discussions currently underway



**A/Prof. Vivien Chen, Sydney Local Health District**

***Novel biomarker to predict thrombotic risk in myeloproliferative neoplasms (2022 - 2024, \$193,000)***

- Diagnostic assay for heparin induced thrombocytopenia (HIT) has been selected for an International Society of Thrombosis and Haemostats Scientific Standardisation sub-committee project aimed at progressing procoagulant platelet based assays, including this patented assay, available for diagnostic use in HIT.
- NSW Office of Health and Medical Research, NSW Cardiovascular Collaborative Grant, \$1,000,000
- Sydney Local Health District award, \$15,000
- NSW Office of Health and Medical Research translational research grant, \$500,000
- US patent granted
- Collaboration with Emosis Diagnostics
- Licensing negotiations



**A/Prof. Branka Grubor-Bauk, The University of Adelaide**

***Novel T cell-based DNA vaccine against Zika virus infection (2021, \$220,000)***

- Industry collaboration with Vaxxas (Australia)
- Industry support from aVaxziPen (UK)
- Industry collaboration with PharmaJet (CO, USA)
- Collaboration with University of Wisconsin - Madison (WI, USA)
- Industry collaboration with EthernA (Belgium)



## 2025 Dr. John Raftos AM Award for Advancing Innovation



### Prof. Roger Chung, Macquarie University

*“Preclinical evaluation of novel therapeutics for clearance of TDP-43 in amyotrophic lateral sclerosis”*  
(\$183,488, 2019-2021)

**Indication:** ALS/MND | **Type:** therapeutics

**Key achievement:** Prof. Roger Chung has developed novel therapeutics to help treat ALS and MND. He has since successfully established a spin-off company with a substantial Series A capital raise for a significant disease with a major unmet need where therapeutics will be developed through his spin-off company. This research has since progressed to a first in human Phase 1b clinical trial of CTx1000, an experimental genetic medicine targeting a key driver of the disease.

#### Funding leveraged from NFMRI grant:

- Fight MND Foundation Drug Development Grant, \$1,000,000
- Fight MND Foundation Impact Grant, \$250,000
- NHMRC Ideas Grant, 2023-2025, *“Developing novel gene expression control mechanisms for ALS (MND) gene therapies”*, \$794,115
- Seed and capital raised amounted to \$18.75m combined

#### Awards received post grant:

- Recipient of the 2023 NHMRC Marshall and Warren Innovation Award

#### Translational achievements:

- Spin-off company, Celosia Therapeutics, \$2,000,000 seed funding raised, followed by a series A of \$16.75 million led by Uniseed
- First in human, open-label study currently underway - Celosia’s Phase 1b clinical trial (KOANEWA) of CTx1000, an experimental genetic medicine targeting a key driver of the disease

**Health impact:** ALS/MND is a rare, progressive and debilitating neurological disease that is ultimately fatal. There is currently no known treatment that stops or reverses the progression of ALS. Current estimates suggest there are around 140,000 people globally living with ALS and around 400,000 living with MND.

## 2025 Dr. John Raftos AM Award for Advancing Innovation

### Prof. Nicholas Huntington, Monash University

*“Dr. John Dixon Hughes OAM Medal – Genetically modified NK cells for cancer immunotherapy” (\$50,000, 2019)*

**Indication:** cancer | **Type:** immunotherapy



**Key achievements:** Prof. Nicholas Huntington used the Medal prize grant to boost significantly his existing research program into NK cells and Cytokine, as well as to build his drug development acumen. These advances have driven meaningful progress in Audax Bioscience’s early-stage oncology portfolio and have informed new immuno-oncology initiatives pursued by prominent international past collaborators, including Gilead Sciences, as well as the immune-oncology strategies of organisations benefiting from his advisory board memberships.

#### Funding leveraged from NFMRI grant:

- NHMRC Next General Cell Therapies grant, \$2,200,000
- NHMRC NK cell immunotherapies grant, \$2,800,000
- Cancer Council Victoria grant, \$333,000
- Has attracted ~\$100m of industry/academic funding generating >100 scientific jobs across multiple organisations (this amount includes funding leveraged from both NFMRI and other sources)

#### Awards received post grant:

- 2019 Australian Academy of Science Jacques Miller Medal

#### Translational achievements:

- 3 PCTs licensed and industry collaborations with Paranta Bioscience, Anaxis, Servier, CRC CTX, oNKo-Innate (Gilead Sciences + Kite Pharma)
- Co-founded oNKo-Innate (now Audax Biosciences Pty. Ltd) & won Australian Emerging Company of the Year (2021)
- Member of the External Advisory Board (EAB) for the Institute of Cell Therapy Discovery and Innovation (MD Anderson Cancer Centre) & Scientific Advisor to Bristol Myers Squibb (Tumor Microenvironment Modulation)
- 145 research articles with >18,000 citations on NK cells and cancer immunotherapy
- CISH edited TIL in Phase I clinical trials for advanced solid cancer
- Pre-clinical proof-of-concept for clinical trial investigating the safety and efficacy of venetoclax in combination with non-myeloblastic conditioning for patients with hematological malignancies who are scheduled for allogeneic stem cell transplantation

**Health impact:** The overall prevalence of cancer is a growing concern, with predictions suggesting the number of new cases could rise significantly by 2050. There are approximately 20 million new cancer cases and around 9.7 million cancer related deaths every year.

## Our Supporters

We wish to acknowledge and thank the following organisations and individuals who have supported the Foundation during 2025. Their assistance has greatly contributed to the Foundation's growth and success.

### McGrathNicol

Over many years, McGrathNicol has generously provided support to the Foundation. NFMRI is very grateful to McGrathNicol for kindly providing administrative support and use of office facilities.

### Mercer Investments Australia

Mercer Investments Australia (previously BT Financial Group) has been supporting the Foundation for several years, providing strategic guidance to the organisation and management of our investment portfolio.

### Equity Trustees

A partnership with Equity Trustees was formed thanks to generous funding from The Mason Foundation to help support mutually aligned research into Alzheimer's Disease. Additional funding from The NSW Community Foundation, the NSW Community Foundation – Nicholas and Phyllis Pinter Trust and the Vernon Sinclair Fund has been provided to support cancer research.

This funding has helped support the following grants in 2025: Prof. Isabelle Lucet (WEHI), Prof. Bryce Vissel (St. Vincent's Hospital Sydney), Dr. Jenna Ziebell (University of Tasmania), Dr. Rebecca Nisbet (The Florey), Prof. Kate Schroder (The University of Queensland), Dr. Emma van der Westhuizen (St. Vincent's Institute of Medical Research) and Dr. Dorothy Wai (Monash University).

### Hall & Wilcox

Hall & Wilcox kindly continues to provide pro bono legal and secretarial advice to the Foundation and has supported many of our past events, including our Research with Purpose Conference.

### State Trustees Australia Foundation

Through generous support from the State Trustees Australia Foundation, we have been able to support Dr. Remy Robert's cancer project at Monash University.

### Nexia Sydney Audit Pty. Ltd.

We wish to thank Nexia Sydney Audit Pty. Ltd. for being our auditors since 2016.

### Anonymous partner

We thank of anonymous partner for working with NFMRI to support innovative research into diseases affecting children and youth. Together we are supporting Prof. Vitto Ferro (The University of Queensland) and Prof. Michael Rogers (Garvan Institute of Medical Research).

## Our Governance

The National Foundation for Medical Research and Innovation (ABN: 85 001 422 895) is endorsed as a Tax Concession Charity and Deductible Gift Recipient (Item 1). The Foundation is also recognised as a Health Promotion Charity and has fundraising licences in relevant Australian states.

The Directors of the Foundation and management are committed to achieving and demonstrating the highest standards of corporate governance. The Directors of the Foundation continually seek to adopt best practice policies and procedures.

In accordance with the Foundation's strong focus on sound governance, the Board has adopted a Governance Charter that supplements its Constitution and details the policies, processes and expectations for the Directors, Research Advisory Committee (RAC), staff and contractors of the Foundation. It outlines a code of conduct, which all members are required to agree to, as well as conflicts of interest disclosures and management procedures.

The annual review of the Foundation's governance frameworks considers best practice guides, including those published by the Australian Securities Exchange and Standards Australia.

The Foundation has continuous improvement processes and adopts a governance review schedule, which includes the review of its skills-based Board, RAC and Staff.

## Our Board's Responsibilities

One of the primary responsibilities of the Board is to be the custodian of the purpose of the Foundation as set out in the mission statement within the Foundation's Constitution.

## Our Mission

"To advance innovations in medical research related to the nature, prevention, diagnosis, treatment and incidence of disease and other health problems that have a significant impact on the health of humans."

Specific responsibilities include:

- Continually develop and drive the vision of the Foundation;
- Identify any critical gaps in medical research funding in the community;
- Achieve a greater profile within the research community;
- Grant funding to applicants whose research supports the mission of the Foundation;
- Provide guidance to the Research Advisory Committee in respect of the type of research project that the Foundation may fund;
- Increase the Foundation's ability to give via partnerships, bequests and any other suitable avenues; and
- Grow and monitor the financial capital base of the Foundation.

## Our Management's Responsibilities

The Board has formally delegated day-to-day management of the company's operations and the implementation of the Foundation's strategy and policy initiatives to the Chief Executive Officer and senior executives.

## Our Partnerships

NFMRI seeks to engage with like-minded stakeholders that enable the Foundation to fulfil its mission. The Foundation values its stakeholders and believes that for its partnerships to be successful, both parties must be involved and have mutual expectations.

Our processes facilitate discussions to align expectations, establish a governance framework and develop a partnership that benefits both parties to achieve the desired results. To maximise success, our focus is on identifying and working with groups that have aligned interests, where each party stands to mutually benefit from the partnership. Over recent years, we have had the pleasure of partnering with the following organisations:



### **Equity Trustees (The Mason Foundation, NSW Community Foundation, NSW Community Foundation – Nicholas and Phyllis Pinter Trust and the Vernon Sinclair Fund)**

In mid 2021, Equity Trustees extended our partnership to assist with distribution of medical research funding for a further three years. This included an annual contribution of approximately \$520,000 towards Alzheimer's disease research and approximately \$80,000 from other partners to support cancer research. NFMRI was seen as a partner of choice due to its strategy and focus on outcomes, independence, ability to value-add to research projects and its ability to support innovation successes that will lead to tangible community outcomes. Together we have supported many projects featured in this report.

Although the partnership is coming to an end, NFMRI continues to allocate the remaining funds to achieve the purpose of all partners.

### **Anonymous partner**

An anonymous donor partnered with NFMRI to help identify and support research into diseases affecting children and youth. This included an annual contribution of approximately \$250,000. Together, we have supported Prof. Russell Dale from the University of Sydney and we are currently Prof. Vito Ferro from the University of Queensland and Prof. Michael Rogers from the Garvan Institute of Medical Research.



### **State Trustees Australia Foundation**

NFMRI is assisting the State Trustees Australia Foundation in supporting innovative cancer research in Victoria. Together we are supporting Dr. Remy Robert's cancer research project at Monash University.

## NFMRI's 2025 Annual Awards Night

On the 26<sup>th</sup> November 2025, the NFMRI announced the joint winners of the Dr John Raftos AM Award for Advancing Innovation and new 2026 grant recipients. In the presence of industry, business and research experts, researchers from across the country received funding to support the advancement of their innovations. The Medal, developed in honour of Dr John Raftos AM – a leading cardiologist who served the Board and Research Advisory Committee of NFMRI between 1982 – 2007 - to celebrate the achievements of Australia's recent biomedical research innovators, entails a \$50,000 prize in the form of a research grant for each recipient and was awarded to both:

- **Prof. Roger Chung from Macquarie University, and**
- **Prof. Nicholas Huntington from Monash University.**

NFMRI's CEO, Dr Noel Chambers, said *"that the shortlisted candidates were of exceptionally high calibre, each demonstrating outstanding progress and advancement of their innovations towards the community."* He noted that the Foundation's research advisory committee felt it was impossible to compare and decide between the two finalists and hence the Board made the decision to award two medals: one to **Professor Roger Chung**, for his successes with the development of novel therapeutics to help treat ALS/MND through spin-off company Celosia Therapeutics; and one to **Prof. Nicholas Huntington** for his research program into NK cells and Cytokine, which have driven meaningful progress in Audax Bioscience's early-stage oncology portfolio and have informed new immune-oncology initiatives pursued by prominent past collaborators such as Gilead Sciences.

A number of other highly innovative proposals aiming to improve the lives of many in Australia and beyond were also announced as new recipients of NFMRI research grants. They include:

- **Dr. Emma van der Westhuizen**, St. Vincent's Institute of Medical Research, for a new Alzheimer's disease project using small molecules
- **Prof. Hui Chen**, University of Technology Sydney for the development of a novel RNA therapy to restore or preserve cognitive function in people with dementia
- **Dr. Thomas Tapmeier**, Monash University for the development of new and improved antagonists as future treatment options for patients with endometriosis
- **Dr. Livia Carvalho**, The University of Melbourne for the expansion of their existing ocular nanoparticle platform from drug to ocular gene delivery

Dr. Noel Chambers noted that innovations from both Medal recipients were rapidly advancing towards improving the lives of many vulnerable people globally and that the Foundation was excited to be able to provide nearly \$1.7 million dollars in existing and new funding for research advancing medical innovations of tomorrow.



L-R: Prof. N Huntington, Ms A Gartner, Dr. J Raftos, Dr. J Davidson (on behalf of Prof. R Chung)

## New Grants Approved in 2025

From grant rounds held during 2025, a total of six additional new grants amounting to \$734,780 were approved and announced in 2025 commencing in 2025-2026:

**Dr. Livia Carvalho**                      **The University of Melbourne**                      **\$145,000 (2026-2028)**  
***“Harnessing a nanotechnology delivery platform for therapeutic ocular gene delivery”***

Inherited retinal diseases (IRDs) represent a devastating group of genetic eye disorders characterized by progressive vision loss. Affecting one in 2,000 people worldwide, IRDs are the primary cause of vision loss in children and working-age adults, imposing substantial economic and healthcare burdens.

The landscape of treatment is severely constrained. To date, only one gene-specific therapy has been approved, with a limited number of additional therapies in clinical trials.

Dr. Livia Carvalho’s project will address these challenges by developing a versatile gene delivery nanoparticle to safely transport genetic material (mRNA) into photoreceptor cells; minimize surgical invasiveness; overcome current viral vector limitations and provide a more efficient approach to treating Stargardt disease. In this project we will generate a novel nanoparticle optimised for mRNA delivery to the eye.

Funding provided by the NFMRI will be used to help support optimisation, efficacy, as well as nanoparticle penetration and distribution studies.

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**Dr. Roger Chung**                      **Macquarie University**                      **\$50,000 (2026)**  
***“Dr. John Raftos AM Award for Advancing Innovation”***

The NFMRI John Raftos Medal prize will enable Prof. Roger Chung and his team to foster a new and innovative research program to develop an RNA-based therapeutic for MND.

The prize funds will be used to perform preliminary testing of their saRNA prototypes and their ability to reduce SOD1 expression levels in neurons. This evaluation will generate the necessary proof-of-concept data. This project is high-risk, high-reward. But if it works, it could be the game-changer needed to make a Tofersen-like therapy available to all SOD1 patients. Notably, this platform would be readily modified to target other MND-causing genes, or disease-causing genes in other diseases.



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**Prof. Nicholas Huntington**                      **Monash University**                      **\$50,000 (2026)**  
***“Dr. John Raftos AM Award for Advancing Innovation”***

Natural Killer (NK) cells are specialized immune cells that detect and eliminate pathogenic tissue, including stressed or damaged cells that can become malignant. NK cell activity is broadly inhibited by the expression of major histocompatibility complex class I (MHC-I) molecules, which signal that tissues are healthy. In solid tumors, cancer cells exploit this mechanism by expressing MHC-I, thereby suppressing NK cell activity.



This project will investigate multiple drug modalities designed to specifically and transiently remove MHC-I from the surface of cancer cells. This strategy is expected to render tumor cells highly immunogenic and visible to NK cells, resulting in robust NK cell activation and increased immune cell infiltration into solid tumors. Preclinical genetic models indicate that this localized immune infiltration and inflammation enhances the priming of effector T cells and improves responses to leading immunotherapies that promote effector T-cell expansion and function.

Collectively, these approaches are predicted to improve response rates to currently approved immunotherapies and to induce responses in refractory tumors that lack sufficient immune infiltration and inflammation.

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**Dr. Thomas Tapmeier**

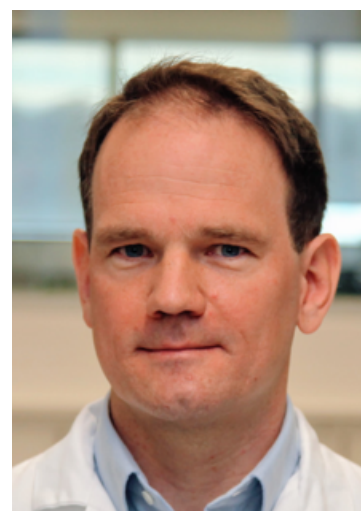
**Monash University**

**\$80,000 (2026)**

***“Neuropeptide S receptor in endometriosis”***

Endometriosis, a condition characterised by the growth of endometrial-like tissue outside of the uterus and mainly in the peritoneal cavity, affects up to 10% of women of reproductive age – approximately 190m world-wide. The main symptoms are severe pain during menstruation or during sex, and infertility. Women suffering from endometriosis have limited treatment options, and non-hormonal treatment options that do not interfere with ovulation or conception are needed.

Having previously identified the Neuropeptide S Receptor as a novel target to treat pain and inflammation in endometriosis at the University of Oxford, Dr. Thomas Tapmeier and his team at Monash University and the Monash Institute of Pharmacological Sciences (MIPS) now aim to develop new and improved antagonists against the receptor as future treatment options for endometriosis.



Funding provided by the NFMRI will help support efficacy studies to assist with the development a proof-of-concept data package towards this goal.

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**Prof. Hui Chen**

**University of Technology Sydney**

**\$264,780 (2026-2028)**

***“Exosome powered cognitive function rescue: unlocking RNA therapies”***

Prof. Hui Chen and her team are working on a novel RNA treatment platform to protect the brain from developing dementia, including Alzheimer’s Disease (AD). The aim of this research is to use this novel treatment to target the root causes of brain cell damage in dementia. Instead of just treating symptoms, Prof. Chen wants to stop the damage before it starts or even reverse it.

Funding provided by the Mason Foundation (managed by Equity Trustees) and NFMRI will help support optimisation, efficacy and preclinical evaluation studies for the therapeutic. They will also use their previously invented novel delivery system to make the RNA based therapy into a therapeutic formulation.

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Dr. Emma van der Westhuizen

St. Vincent's Institute of Medical Research

\$145,000 (2025-2027)

*“Enhancing microglial phagocytosis of toxic amyloid-beta peptides using small molecules”*



Dr. Emma van der Westhuizen's research focusses on an immune protein found on the surface of microglia that recognises sugar found in toxic protein deposits. People with Alzheimer's disease (AD) have higher amounts of this protein and amyloid-beta proteins (A $\beta$ ) in the brain than people without AD.

The preliminary results of Dr. van der Westhuizen and colleagues suggest that strategies to remove or block this protein may lead to the development of effective AD medications. There are no small molecules targeting this protein currently in clinical trials and few labs working to develop these.

The innovation consists of several new small molecules that target this protein which are more likely to breach the blood-brain-barrier than larger antibodies. Her team has 3D images showing some of their small molecules bind to the pocket with moderate strength.

Funding provided by The Mason Foundation (managed by Equity Trustees) and NFMRI will be used to test these molecules in cell models of AD so that Dr.

Emma van der Westhuizen and her team can translate them into pre-clinical animal models of AD.

## Grants with Funding Continued in 2025

Following recommendations of our Research Advisory Committee, the Board approved \$1,819,824 in grant payments supporting 17 projects during the 2025 calendar year:

Researcher	Institute	Focus Area	Total 2025	Total funding commitment
<b>Dr. Livia Carvalho</b>	Lion's Eye Institute	Eye diseases	\$18,750	\$145,000
<b>Prof. Denise Doolan</b>	James Cook University	Malaria	\$72,500	\$290,000
<b>Prof. Vito Ferro**</b>	Peter Doherty Institute	Childhood dementia	\$91,067	\$145,000
<b>Prof. Michael Rogers**</b>	Griffith University	Childhood diseases	\$158,611	\$188,162
<b>A/Prof. James Wells</b>	The University of Queensland	Skin cancer	\$187,110	\$344,610
<b>Prof. Bernard Flynn</b>	Monash University	Intestinal fibrosis	\$111,100	\$189,400
<b>Dr. Pierre Qian</b>	The University of Sydney	Cardiovascular	\$112,500	\$180,000
<b>Prof. Gursel Alici</b>	University of Wollongong	Prosthetics	\$120,000	\$120,000
<b>Dr. Hayley Bullen</b>	Burnet Institute	Malaria	\$150,000	\$150,000
<b>Prof. Isabelle Lucet*</b>	WEHI	Alzheimer's disease	\$76,553	\$171,106
<b>Prof. Bryce Vissel*</b>	St. Vincent's Hospital Sydney	Alzheimer's disease	\$109,788	\$293,328
<b>Dr. Jenna Ziebell*</b>	University of Tasmania	Alzheimer's disease	\$77,850	\$264,485
<b>Dr. Rebecca Nisbet*</b>	The Florey	Alzheimer's disease	\$86,363	\$152,450
<b>Prof. Kate Schroder*</b>	The University of Queensland	Alzheimer's disease	\$170,000	\$250,000
<b>Dr. Remy Robert***</b>	The University of Sydney	Cancer	\$173,907	\$260,861
<b>Dr. Emma van der Westhuizen*</b>	St. Vincent's Institute of Medical Research	Alzheimer's disease	\$51,780	\$145,000
<b>Dr. Dorothy Wai*</b>	Monash University	Alzheimer's disease	\$51,946	\$186,677
			<b>\$1,819,824</b>	<b>\$3,476,079</b>
*Supported by NFMRI and The Mason Foundation (managed by Equity Trustees)				
**Supported by NFMRI and an anonymous partner				
***Supported by NFMRI and the State Trustees Australia Foundation				



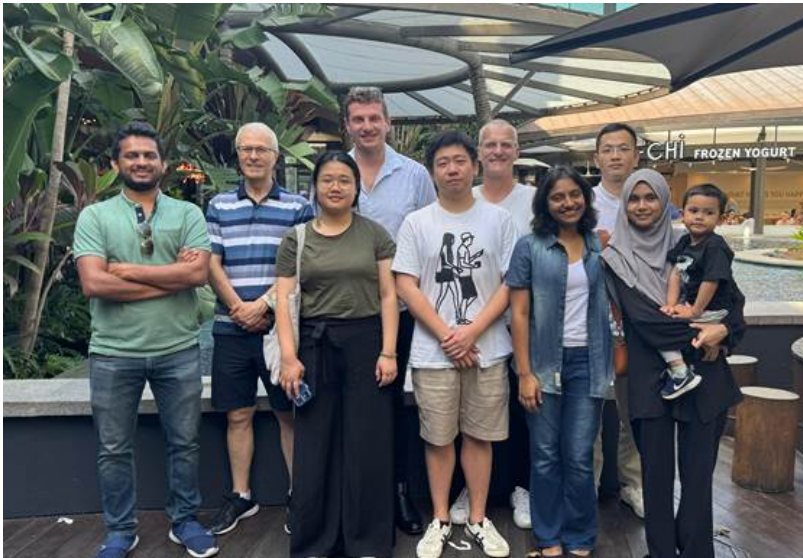
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**Prof. Vito Ferro**

**The University of Queensland**

**\$145,000 (2025-2026)**

***“Pharmacological chaperone therapy in a mouse model of MPS IIIA (Sanfilippo syndrome), a childhood dementia”***



**Prof. V Ferro (second on the left) and University of Queensland team**

Sanfilippo syndrome is a rare genetic condition that causes childhood dementia – progressive, fatal brain damage in children with many features common with adult dementias. The median age of death reported is just 18 years and there is currently no effective treatment or cure. Prof. Ferro and his team have developed novel compounds called “chaperones” that can help support the stability and correct placement of the faulty enzyme present in Sanfilippo type A (MPS IIIA) patients. They have shown that their chaperones restore function of mutated enzyme and reduce the accumulation of waste

products in cells from Sanfilippo type A patients.

Funding provided by our anonymous partner and NFMRI is helping support in vivo proof of concept studies.

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**Prof. Mike Rogers**

**Garvan Institute of Medical Research**

**\$188,162 (2025-2026)**

***“Developing a lipid replacement to overcome a childhood autoinflammatory disease”***

Mevalonate kinase deficiency (MKD) is a genetic autoinflammatory disorder with a spectrum of symptoms, including repeated flares of fever, joint pain, gut inflammation, severe abdominal pain, ulcers and skin rashes. The disease typically appears in early childhood and can be fatal in very severely affected individuals. This project brings together two collaborators with unique expertise in biochemistry and drug delivery, to develop a new treatment for MKD. Their approach is based on replenishing a crucial lipid metabolite that is lacking in MKD patients. The goal is to create an absorbable form of the missing metabolite that can be administered orally, in capsules or as a liquid suitable for children, thus bypassing the need for drug injection.



Funding provided by our anonymous partner and NFMRI is helping support preclinical development pathway studies for the lipid supplement as a simple, but innovative new treatment for MKD.

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A/Prof. James Wells

The University of Queensland

\$344,610 (2025-2026)

*“The development of Q2361 for skin cancer prevention and treatment in transplant patients”*



A/Prof. J Wells (third from right) and University of Queensland team

Organ transplant patients require lifelong medication to prevent their bodies from rejecting their transplanted organs. Most patients receive a medication called tacrolimus. A side effect of this medication is a very high risk of a type of skin cancer called squamous cell carcinoma (SCC). These cancers develop on sun-exposed areas such as the face, grow aggressively, and lead to significant loss of life. There are currently no FDA-approved drugs for the treatment of SCC in these patients.

A/Prof. Wells in collaboration with the Queensland Emory Drug Discovery Initiative (QEDDI), UniQuest’s commercial drug discovery arm, have identified and patented the compound Q-2361, which antagonises the effects of the tacrolimus medication in the skin. If given topically, Q-2361 allows the immune system to ‘switch on’ in the skin only and has enormous potential to combat skin cancer in transplant patients without needing to alter their medication and without leading to transplant rejection.

Funding provided by NFMRI is helping support scale-up chemistry and formulation

development to advance this compound towards Phase I clinical trials.

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Prof. Bernard Flynn

Monash University

\$189,400 (2024-2025)

*“Gastrointestinal-restricted ALK5 inhibitors for the treatment of intestinal fibrosis”*

Fibrosis refers to the accumulation of scar tissue in any tissue usually because of a sustained inflammatory insult. Approximately 30-50% of people with a diagnosis of inflammatory bowel disease (IBD), Crohn's disease or ulcerative colitis, suffer from intestinal fibrosis. This intestinal fibrosis leads to strictures that obstruct the GI tract, requiring surgical intervention. Currently, there are no therapies available for the treatment of intestinal fibrosis and it remains a key unmet need in IBD treatment.

Activin receptor-like kinase 5 (ALK5) is a key mediator of profibrotic signaling in the cell-types that drive fibrosis. Compounds that inhibit ALK5 have shown great promise in preclinical rodent models of intestinal fibrosis, but their clinical development has been curtailed



by the adverse cardiovascular events that arise from inhibiting ALK5 in cardiac tissue. Prof Flynn (an expert in drug discovery and GI-directed therapeutics) and Prof Pitson (an expert in fibrosis cell biology) have developed a new class of GI-restricted ALK5 inhibitors (AKL5i) for the treatment of intestinal fibrosis. In this project, they will collaborate with the "third party" group of A/Prof Rimma Goldberg (IBD clinician researcher, Monash Health) and A/Prof Joshua Ooi (Centre for Inflammatory Disease, Monash Health), to achieve a proof-of-concept in rodent models of safety and efficacy.

Funding provided by NFMRI is supporting a preclinical proof-of-concept for a gastrointestinal restricted antifibrotic drug that inhibits known a biomolecular mediator of fibrosis, ALK5.

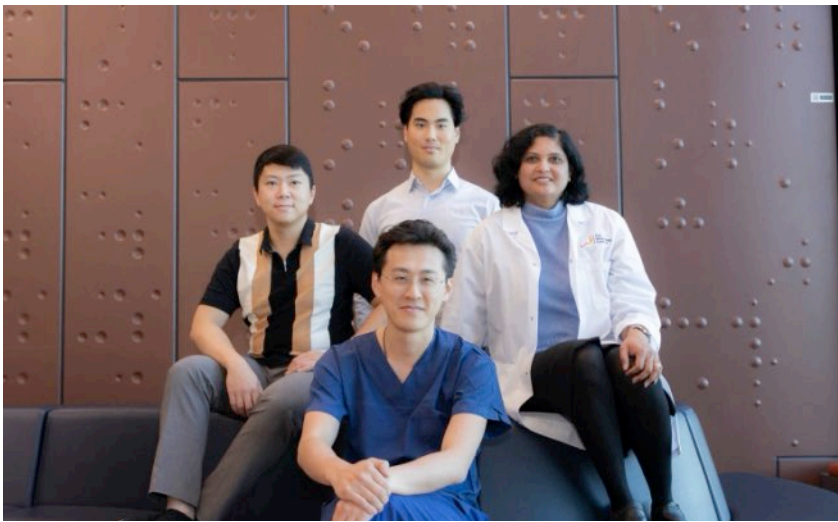
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**Dr. Pierre Qian**

**The University of Sydney**

**\$180,000 (2024-2025)**

***“Mu microwave catheter for treatment of hypertension”***



**Dr. P Qian (front) and University of Sydney team**

Dr. Qian and his team at Westmead Hospital have invented the Mu Catheter, a microwave ablation system for renal denervation. Microwaves penetrate deeply into the fat around renal arteries circumferentially leading to effective denervation without causing significant arterial injury.

Funding from NFMRI is supporting the development of a proof-of-concept renal blood flow measuring device (and correlating dataset) that can continuously monitor renal blood

flow to take advantage of this physiological endpoint to guide denervation therapy, thereby “unblinding” RDN and clarifying the value proposition of the Mu RDN system to investors.

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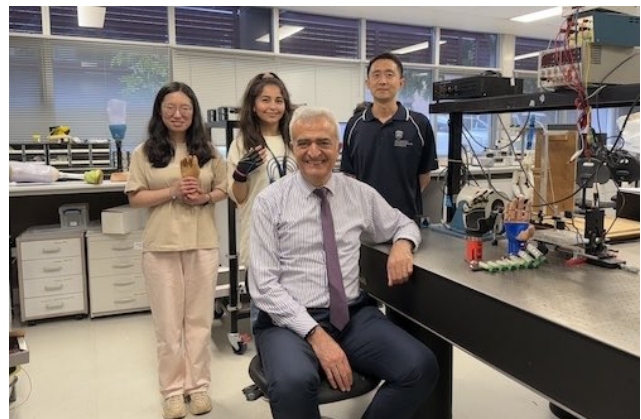
**Prof. Gursel Alici**

**University of Wollongong**

**\$120,000 (2025)**

***“Preclinical preparation for a novel multimodal human-machine-interface to enhance myoelectric control of transradial prosthetic hands”***

This project aims to make preclinical preparations and optimize the developed prototype of a multimodal human-machine-interface for its application in the myoelectric control of transradial prosthetic hands. Current myoelectric control systems for prosthetic hand patients rely on unimodal bio-signals from surface electromyography (sEMG) sensors attached to a user’s residual stump. Prof. Alici and his team have developed a co-colated multimodal sensor that can acquire both sEMG and force myography signals from the same location of an arm, which



significantly enriches the detected muscular information. Preliminary results demonstrate that their system outperforms conventional unimodal systems in multiple aspects, including robustness of user intention recognition, resilience of external noise, etc.

Funding provided by NFMRI is supporting prototype optimization studies to further advance the innovation towards clinical trial.

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**Dr. Hayley Bullen**

**Burnet Institute**

**\$150,000 (2025)**

***“Developing novel antimalarials that prevent malaria parasites invading red blood cells”***



As a novel approach to inhibiting parasite invasion, Dr. Bullen and her team have sought to target parasite enzymes responsible for folding invasion proteins. So far, they have identified 8 compounds which prevent parasite growth by inhibiting invasion of red blood cells. Importantly, they have found that these compounds are likely to have pan-species activity (ie. kill more than one species of malaria parasite). This is extremely important as prevalent malaria species vary across the world.

Funding provided by NFMRI is supporting pharmacokinetics optimisation studies conducted in collaboration with the Walter and Eliza Hall Institute of Medical Research.

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**Prof. Isabelle Lucet**

**WEHI**

**\$171,106 (2025-2026)**

***“Targeting NEK7 mediated activation of the NLRP3 inflammasome as a new therapeutic avenue for Alzheimer’s disease”***

Prof. Lucet’s innovative strategy is based on robust evidence linking inflammation in the brain to Alzheimer’s disease progression. Her team is particularly focused on the protein NLRP3, a key driver for the body’s first-line immune response and a highly sought after target in academia and the pharmaceutical industry worldwide due to its relevance to a wide range of diseases. They will aim to target the accessory key protein kinase, NEK7, through the development of small molecule drugs that render NEK7 unable to activate NLRP3, thereby reducing harmful brain inflammation in Alzheimer’s disease patients.

Funding provided by The Mason Foundation (managed by Equity Trustees) and NFMRI is being used to create bespoke assays and develop tools and small molecule lead candidates that can be developed towards clinical trials.



**L-R: A Thompson and Prof. I Lucet**

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**Prof. Bryce Vissel**

**St. Vincent's Hospital Sydney**

**\$293,328 (2025-2026)**

***“A novel therapeutic target to correct synapse loss and prevent cognitive decline in Alzheimer's disease”***



In Alzheimer's disease (AD), the loss of connections made between brain cells (synapses) correlates more strongly with the emblematic cognitive decline associated with the condition, than does the accumulation of amyloid which consumes most research attention on AD. Treatments that directly target and attempt to rescue synapse loss represent an avenue by which we might most effectively treat cognitive decline. Prof. Prof. Bryce Vissel's team seeks to target a mechanism involving abnormal synapse function by changing compositions of AMPA receptors (AMPA receptors), a key neurotransmitter receptor in the brain.

Funding provided by The Mason Foundation (managed by Equity Trustees) and NFMRI is supporting pre-clinical efficacy studies.

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**Dr. Jenna Ziebell**

**University of Tasmania**

**\$264,485 (2023-2025)**

***“Alternate drivers of Alzheimer's disease: is microglia the problem?”***

Recent studies suggest microglia are highly associated with Alzheimer's disease and could potentially be the initiators of disease. This research aims to understand if microglia are genetically programmed to drive Alzheimer's disease (AD) progression.

Dr Ziebell and her team's innovative research plan is investigating whether transplanting microglia from “healthy” mice diminishes disease burden. Furthermore, they are examining whether transplanting microglia from “Alzheimer's disease” mice changes neuropathology with ageing. This study design is investigating these factors in both biological sexes. This project is funded in partnership between The Mason Foundation (managed by Equity Trustees) and NFMRI.



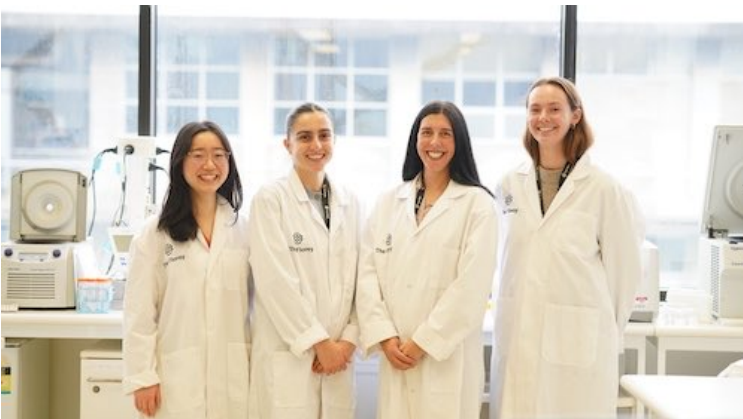
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**Dr. Rebecca Nisbet**

**The Florey**

**\$152,450 (2024-2026)**

***“Vectorised antibody therapeutic targeting intracellular tau for the treatment of Alzheimer's disease”***



Over the last 10 years, Dr. Nisbet has led a research program aimed at developing novel tau antibodies as a therapy for Alzheimer's disease. Together with her team, they have generated an antibody, RNJ1, that binds tightly to tau and prevents tau from clumping together. To enhance targeting of tau within brain cells, where tau is mostly localised, they engineered a small fragment of RNJ1 to create an intracellular antibody, also

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known as an intrabody. They have demonstrated that when the DNA of the RNJ1 intrabody, iRNJ1, is delivered to cells, the cells can effectively make iRNJ1, which is in turn able to bind to tau. To facilitate brain delivery, iRNJ1 DNA has been packaged into adeno-associated virus (AAV), a human virus that does not cause disease, but can effectively enter the brain and brain cells. Intravenous injection of mice with AAV-packaged iRNJ1 results in wide-spread brain delivery, as well as the successful generation of iRNJ1 in brain cells.

Funding provided by The Mason Foundation (managed by Equity Trustees) and NFMRI is helping support Dr. Nisbet and her team to conduct a large pre-clinical assessment of iRNJ1, including validation and safety studies.

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**Prof. Kate Schroder**                      **The University of Queensland**                      **\$250,000 (2024-2026)**  
***“Inflammasome proteins as novel drug targets for treating dementia”***

This project will aim to define the precise molecular mechanisms by which aggregated tau triggers inflammasome-dependent inflammation and neurodegeneration to validate exciting new drug targets for dementia. This project’s significance lies in its capacity to provide preclinical data to expedite human trials of Prof. Schroder’s emerging inflammasome inhibitors in AD and FTD. Given that the NLRP3 inhibitor Selnoflast is already in human trials for other diseases, there is potential for rapid research translation to meet urgent unmet need for people living with dementia.

Funding from The Mason Foundation (managed by Equity Trustees) and NFMRI is helping support validation studies for inflammasome proteins as novel drug targets for treating dementia.

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**Dr. Remy Robert**                      **Monash University**                      **\$260,861 (2024-2026)**  
***“Targeted killing of immunosuppressive regulatory T cells for the treatment of solid tumours”***

Dr. Robert and his team have discovered a highly differentiated antibody with superior ability to eliminate tumour infiltrating regulatory T cells, with the potential to be further developed as a solid tumour treatment. The overall aim of the research program is to further differentiate and reposition the antibody program into a first-in-class antibody drug conjugate (ADC) program. The unique internalisation property of the antibody makes it amenable to an ADC approach. Furthermore, unlike the competitor program in development, an ADC approach doesn’t rely exclusively on the presence of patients’ immune cells for the elimination of the tumour infiltrating regulatory T cells.

Funding provided by the State Trustees Australia Foundation and NFMRI is helping support a preclinical proof-of-concept of an ADC approach.

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**Dr. Emma van der Westhuizen**                      **St. Vincent’s Institute of Medical Research**                      **\$145,000 (2025-2027)**  
***“Enhancing microglial phagocytosis of toxic amyloid-beta peptides using small molecules”***

Dr. Emma van der Westhuizen’s research focusses on an immune protein found on the surface of microglia that recognises sugar found in toxic protein deposits. People with Alzheimer’s disease (AD) have higher amounts of this protein and amyloid-beta proteins (A $\beta$ ) in the brain than people without AD.

The preliminary results of Dr. van der Westhuizen and colleagues suggest that strategies to remove or block this protein may lead to the development of effective AD medications. There are no small molecules targeting this protein currently in clinical trials and few labs working to develop these.

The innovation consists of several new small molecules that target this protein which are more likely to breach the blood-brain-barrier than larger antibodies. Her team has 3D images showing some of their small molecules bind to the pocket with moderate strength.

Funding provided by The Mason Foundation (managed by Equity Trustees) and NFMRI is being used to test these molecules in cell models of AD so that Dr. Emma van der Westhuizen and her team can translate them into pre-clinical animal models of AD.

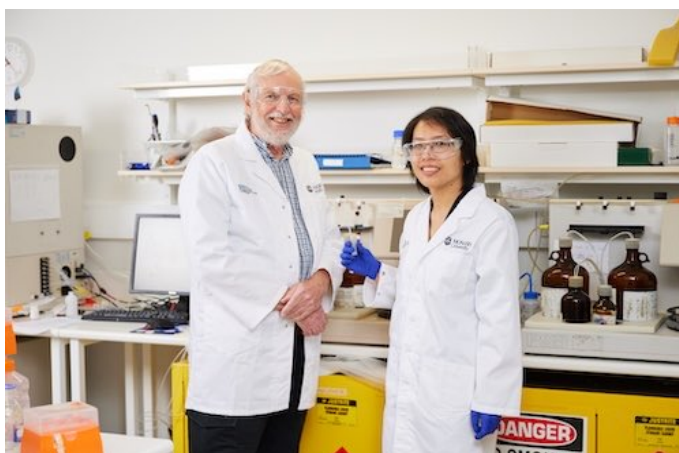


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**Dr. Dorothy Wai** **Monash University** **\$186,677 (2023-2025)**  
***“Development of HsTX1[R14A], a novel therapeutic to reverse neuroinflammation in Alzheimer’s disease”***

This project will advance the development of a novel drug candidate with the potential to reverse the memory deficits associated with Alzheimer’s disease (AD). AD is a debilitating disorder predicted to affect up to 1 million Australians by 2050, yet a cure for this disease remains elusive.

Derived from a natural peptide from scorpion venom, HsTX1[R14A] targets a surface protein on brain immune cells that become overactive in AD. Blocking this protein reduces the activity of these cells and improves memory in a mouse model of AD. However, assessing the biodistribution and demonstrating that this peptide accesses the brain and is effective in a second mouse model of AD are key steps in progressing this novel drug candidate towards the clinic.



Funding provided by The Mason Foundation (managed by Equity Trustees) and NFMRI is helping support proof-of-concept studies for HsTX1[R14A] as a potential AD drug candidate and additional validation of the therapeutic value of targeting this specific pathway in AD.

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## Our People

A dedicated Board, Research Advisory Committee (RAC) and management team lead our Foundation.

### Directors

Directors, qualifications and special responsibilities	Experience
<b>Dr. Rob Sauer</b> 2017- Chairman	<ul style="list-style-type: none"> <li>• Director, Biopharm Australia Pty Ltd. And Arthroparm Pty. Ltd.</li> <li>• Admitted as solicitor of the Supreme Court of New South Wales in 1974</li> <li>• Admitted as Certified Practicing Accountant in 1980</li> </ul> <p>Formerly:</p> <ul style="list-style-type: none"> <li>• A Founding Director and shareholder of ResMed</li> <li>• Partner, DibbsBarker (1978-2008)</li> <li>• Inaugural Chairman, 150% R&amp;D Tax Concession Committee</li> <li>• Inaugural Chairman, Tassal Ltd (1984-1990)</li> </ul>
<b>Mr. John Harkness</b> 1984 -	<ul style="list-style-type: none"> <li>• NFMRI Chairman (2001-2018)</li> <li>• Partner of KPMG for 24 years and National Executive Chairman for five years</li> <li>• Former Chairman and/or Director of listed or unlisted companies from 2000-2018 including Goodman Group, Sinclair Knight Merz, Reliance Rail Group, Charter Hall Retail REIT and Crane Group</li> <li>• Fellow of the Institute of Chartered Accountants in Australia and the Australian Institute of Company Directors</li> </ul>
<b>Dr. Kevin Hellestrand</b> 2001 -	<ul style="list-style-type: none"> <li>• Cardiologist and Cardiac Electrophysiologist for 35 years</li> <li>• Co-author of more than 50 journal articles, reviews and book chapters</li> <li>• Fellow of the Royal Australasian College of Physicians, American College of Cardiology, Cardiac Society of Australia and New Zealand, Heart Rhythm Society, European Society of Cardiology</li> <li>• Member of the North Shore Heart Research Foundation</li> </ul>
<b>Ms. Alison Choy Flannigan</b> 2014- Company Secretary	<ul style="list-style-type: none"> <li>• Company Secretary since 2014</li> <li>• Partner, Co-Leader, Health &amp; Care, Hall &amp; Wilcox</li> <li>• Member, NSW Law Society</li> <li>• Member, Australian Institute of Company Directors</li> </ul>

		<ul style="list-style-type: none"> <li>• Officer, Healthcare and Life Sciences Committee, International Bar Association</li> <li>• Member, AusBiotech</li> </ul>
<b>Emeritus Professor A. Ian Smith</b> Chairman, Research Advisory Committee	2017-	<ul style="list-style-type: none"> <li>• Emeritus Professor, Faculty of Medicine Nursing and Health Sciences Monash University (from 2020)</li> <li>• Director and Chair, Population Health Research Network (from 2017)</li> <li>• Chair, EuroBioimaging Scientific Advisory Board (from 2020)</li> <li>• Director and Chair, Queensland Cyber Infrastructure Foundation Limited (from 2020)</li> <li>• Member EMBL Council and Finance Committee (from 2020)</li> <li>• Managing Director AIS Life Science Consulting Pty Ltd (from 2021)</li> <li>• Chair, EMBL Australia Council (from 2021)</li> <li>• Director, St Vincent's Institute for Medical Research (from 2022)</li> </ul>
<b>Mr. Anthony McGrath</b> <i>Honorary Secretary and Director</i>	1997 -	<ul style="list-style-type: none"> <li>• Founding Partner, McGrathNicol</li> <li>• Board Member, National Rugby League</li> <li>• Non-Executive Director, Servcorp Limited</li> <li>• Member, Institute of Chartered Accountants in Australia</li> <li>• Board Member, 360 Capital Ltd.</li> </ul>
<b>Emeritus Professor Douglas E. Joshua AO</b>	2020-	<ul style="list-style-type: none"> <li>• Professor Emeritus, The University of Sydney</li> <li>• Consultant Hematologist, Royal Prince Alfred Hospital</li> <li>• Scientific Advisor and Member, International Myeloma Foundation</li> <li>• Chairman Scientific Research Committee, Lifeblood</li> </ul> <p>Formerly:</p> <ul style="list-style-type: none"> <li>• Head of Clinical and Laboratory Hematology, Sydney Cancer Centre</li> <li>• Head of Haematology, Sydney Local Health District</li> <li>• Alan Ng Professor in Medicine at the University of Sydney</li> <li>• Director, Institute of Hematology, Royal Prince Alfred Hospital</li> </ul>
<b>Ms. Alison Gartner</b>	2020-	<ul style="list-style-type: none"> <li>• Co-founder, Evidentli Pty. Ltd.</li> </ul> <p>Formerly:</p> <ul style="list-style-type: none"> <li>• Portfolio Manager, Asia Union Investments Pty. Ltd.</li> <li>• Project Manager, Radiopharm Theranostics Ltd.</li> </ul>

## Research Advisory Committee

<b>Chairman</b> <b>Emeritus Professor A. Ian Smith</b>	Emeritus Professor, School of Biomedical Sciences, Monash University
<b>Emeritus Professor Douglas E. Joshua AO</b>	Emeritus Professor in Haematology at the University of Sydney and Emeritus Consultant Haematologist at RPHA.
<b>Prof. Mark von Itzstein AO</b>	Distinguished Professor and NHMRC Leadership Fellow, Institute for Biomedicine and Glycomics, Griffith University
<b>Alison Gartner</b>	Lifesciences and healthcare investment professional
<b>Dr. Noel Chambers</b>	CEO with over 35 years' experience in biomedical research, innovation, commercialisation and biotechnology
<b>Dr. Andrew Cottrill</b>	Chief Medical Officer, HCF
<b>Prof. Susan Hua</b>	Head of the Therapeutic Targeting Research Group and Professor, School of Biomedical Sciences and Pharmacy, University of Newcastle
<b>Prof. Rachel Thomson</b>	Head of the Greenslopes Clinical Unit, Thoracic Physician and clinical researcher, Greenslopes Private Hospital

## Management and Administration

<b>Dr. Noel Chambers</b>	Chief Executive Officer <ul style="list-style-type: none"><li><i>NHMRC-MRFF Industry, Philanthropy and Commercialisation Committee</i></li></ul>
<b>Mrs. Nancy Ranner</b>	Grants, Communications and Engagement Coordinator
<b>Mrs. Linda Hearne</b>	Bookkeeper and Administrator



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