NFMRI

2023 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 and manage research along the innovation pathway. 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.

Front cover photo: A/Prof. Vivien Chen, Sydney Local Health District

Message from our Chairman

Year after year, it is pleasing to see the growing impact and community benefits realised that our funding helps achieve through its targeted research support. The 2023 calendar year was no exception. Although challenging conditions were experienced during prior years, projects and research activities are quickly ramping up.

Since 1977, over $22.5 million in grants has been committed to support innovative research projects, covering various diseases and conditions throughout the country. Our 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.

Partnerships have enabled NFMRI to scale its activities and offer an increasing and consistent source of targeted funding that assists researchers to cross what is often referred to as the 'valley of death'. We are grateful for ongoing support 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. More recently, thanks to support of an anonymous donor we have been funding innovative research into diseases affecting children and youth. We are also grateful to have received a gift from the Estate of Late John Dixon Hughes, one of our Founding Directors and longstanding RAC Member who sadly passed away in late 2022.

We continue to be excited and surprised by the large amount of success stories and impact shared by researchers with us. This is testament to the effectiveness of our strategy, as well as the personalised support and advice received by researchers from our RAC, Board and management. This also demonstrates the need for this type of targeted support.

We thank Mercer Investments Australia (previously BT Financial Group), and in particular Mr. Scott Glover, for carefully managing the Foundation's investments in consultation with our Board. We also thank Mr. Mark Boyle from Nexia Australia for his continued professional work carrying out the year's annual audit of our Foundation.

On behalf of the Board, I would like to acknowledge and thank our management for their countless efforts to help deliver the ambitious strategy we have set for the Foundation. Dr. Noel Chambers, with the help of Mrs. Nancy Ranner and Mrs. Linda Hearne, continues to raise the bar and steer the Foundation towards success.

I wish to thank my colleagues and fellow Directors for the dedication and passion they have brought to the organisation. Their leadership, vision and guidance are instrumental to the work and successes of our Foundation. Likewise, our Board greatly appreciates the ongoing support and advice received from our expert Research Advisory Committee (RAC). Each Member of our RAC has a unique set of skills and experience and represent an important lens when reviewing projects. Perhaps what is most important is the tremendous team culture we have built at NFMRI. Each individual is valued and plays an important role in helping achieve our overall mission.

This year we farewelled Prof. Elaine Saunders, who retired in December 2023 after serving six years as Director of the Foundation. We also farewelled both Prof. Lisa Horvath and Prof. Elizabeth Gardiner and thank them for supporting our RAC for many years. We congratulate them for their work promotions and wish them all the best with their future endeavours.

Furthermore, we are grateful to have received pro-bono legal advice from Ms. Alison Choy Flannigan of Hall & Wilcox throughout the course of the year, as well as complimentary venue access and administrative support from McGrathNicol.

We look forward to welcoming you at our upcoming conference “Research with Purpose 2024” at the Tangalooma Island Resort, Moreton Island, Queensland on the 26-28th November 2024. Delegates from across the country will join us to participate in our highly engaging educational event to hear from a spectacular line-up of speakers. I’m also pleased to report the Prof. Andrew Wilks will be delivering the inaugural Peter Bowen Oration and we look forward to announcing the winner of the 2025 Dr. John Dixon Hughes OAM Medal.

We greatly appreciate and value our stakeholders’ support and are confident that our donors and partners will be pleased with the high-quality research projects their gifts and assistance have enabled. Collectively, we continue to focus on achieving the vision and goals of our benefactors – both past and present. I hope you enjoy reading about our collaborative progress throughout the 2023 calendar year and I look forward to continuing to share with you some of our achievements throughout the course of 2024 and beyond.

Dr. Rob Sauer
Chairman

Message from our CEO

This year, as we emerge through COVID in a changed environment, we have found that research activities are now resuming, which is demonstrated through an increasing number of quality and strategically aligned grant applications.

Throughout the year, NFMRI continued to de-risk innovations thereby making them more attractive and competitive to next-step partners. The Foundation also continued to work with researchers it supports to harness the expertise required for their innovation to advance. With a growing number of medical research success stories, NFMRI has demonstrated the need for and importance of this targeted support by gathering evidence of impact across various indications, institutions and innovation type. Our robust support helps break barriers and accelerates discoveries.

Our-purpose-built systems, processes and specialist capability enable us to identify and support potential innovations that may deliver community benefits including new medicines, vaccines, diagnostics, devices, tools and biologicals. These systems support the delivery of our strategy and enable us to partner with others seeking to achieve outcomes. We are always happy to work with others and share our findings and experiences, as well as assist other foundations to provide them with guidance and advice.

Our partnerships continue to strengthen and grow. Through support from The Mason Foundation (also managed by Equity Trustees), we have been able to support a growing number of innovative Alzheimer's research projects. We were pleased to support the following Alzheimer's disease research projects during 2023: Dr. Jenna Ziebell (The University of Tasmania), Dr. Dorothy Wai (Monash University) and Dr. Prashant Bharadwaj (Edith Cowan University), Dr. Jonathan Danon (The University of Sydney), A/Prof. Lyndsey Collins-Praino/Dr. Andrew Care (University of Adelaide) and A/Prof. Peter van Wijngaarden (Centre for Eye Research. More projects will be announced later in 2024.

Thanks to generous support from the NSW Community Foundation, the Nicholas and Phyllis Pinter Trust and the Vernon Sinclair Fund (all managed by Equity Trustees), we are supporting A/Prof Vivien Chen's cancer research project at the Sydney Local Health District.

Lastly, we are pleased to be supporting Prof. Russell Dale's project into neurodevelopment disorders affecting children and youth funded in partnership with the help of an anonymous philanthropic partner.

The Foundation's strategy enables engagement with next-step partners that can take early innovations through research, development and regulatory pathways to deliver community benefits. Since introducing this strategy, we are pleased that two of the supported projects have received regulatory approval providing patient access. A shining example is Prof. Nicholas Opie's Stentrode, which we originally began funding in 2018. Since then, a spin-off company Synchron has been established and over US $212 million (series C) was raised. Importantly, the Stentrode has gained FDA approval and is now implanted successfully into patients to treat paralysis.

Together with a growing list of partners, we are pleased with our increasing examples of successful outcomes that continue to build evidence-based approach to support our strategy. Testament to the success and robustness of our Foundation's funding strategy is the fact that in 2023 our Board resolved to award two 2024 Dr. John Raftos AM Awards to existing and past grantees for their innovation's success: Prof. Michael Good AO for the success and progression of his Strep A and malaria vaccines, as well as A/Prof Peter van Wijngaarden for the success of his hyperspectral camera

in detecting Alzheimer's disease. The Board found it impossible to select one researcher over the other as both were equally worthy of the Award and successful in their own merit.

Our Research Advisory Committee (RAC) Members remain instrumental in helping NFMRI and the researchers it supports achieve success. We thank them for contributing an enormous amount of time reviewing expressions of interest, applications, reports and acquittals throughout the course of the year. The composition of our RAC is unique and includes what we refer to as 'four lenses' of review: clinicians, academics, research translation and commercial science experts. Each member has a different background and set of skills that helps provide a multi-lens approach in our reviews and support.

Our sixth conference, 'Research with Purpose 2024', is taking place at the Tangalooma Island Resort, Moreton Island, Queensland on the 26-28th November 2024. We thank all the speakers for their willingness to generously contribute their time and share their expertise with our audience. We plan to share an update to our impact statistics at our conference and look forward to welcoming you all in Queensland later this year.

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.

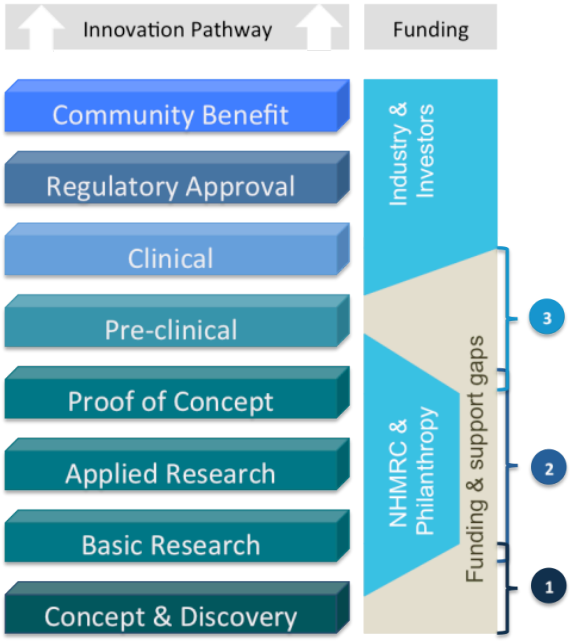
1979-1982	Sir Peter Abeles (Founding Chairman)
1979-1983	Mr. ED Cameron
1979-1983	Mr. JP Ducker AO
1979-1983	Mr. MJ Inglis
1979-1982	Lady Sonia McMahon
1979-1990	Mr. TE May (Former Chairman)
1977-1982	Dr. FL Ritchie C.B.E.
1977-1995	Mr. BF Rose
1979-1982	Dr. HH Spiegel
1979-1982	Sir Ian Turbott C.M.G,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

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.



3 **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.

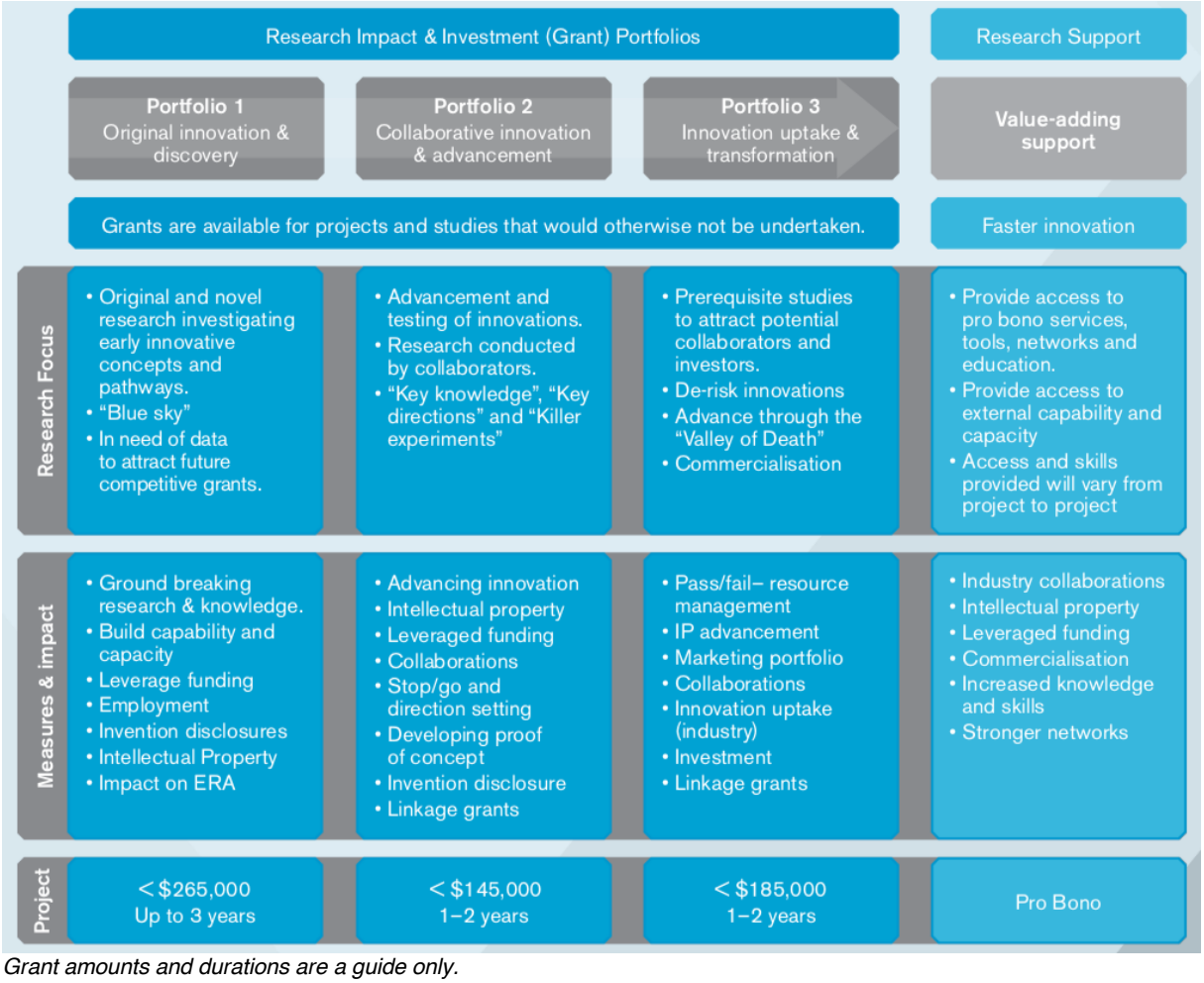
Support for strategic collaborative research activities focussed on advancing innovations and validating directions is needed. NFMRI is uniquely positioned to add value to the advancement of research and innovations in preparation for potential collaborations.

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



Grant amounts and durations are a guide only.

Our Supporters

We wish to acknowledge and thank the following organisations and individuals who have supported the Foundation during 2023. 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 (previously BT Financial Group)

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 2023: A/Prof. Vivien Chen, A/Prof. Peter van Wijngaarden, A/Prof. Lyndsey Collins-Praino (A/Prof. Andrew Care), Dr. Jonathan Danon, Dr. Jenna Ziebell, Dr. Dorothy Wai and Dr. Prashant Bharadwaj.

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.

IP Australia

IP Australia has kindly provided pro bono patent analytics research to several of our research projects.

Nexia Sydney Audit Pty. Ltd.

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

Estate Late John Dixon Hughes

We thank the family of Dr. John Dixon Hughes for the generous gift-in-will received in 2023. This gift will help support and advance new medical innovations.

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. Russell Dale.

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): Equity Trustees extended our partnership to assist with distribution of medical research funding for a further three years. This includes 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.

Anonymous partner

NFMRI is partnering with an anonymous donor to identify and support research into diseases affecting children and youth. This includes an annual contribution of approximately $250,000. Together, we are currently supporting Prof. Russell Dale from the University of Sydney.

State Trustees Australia Foundation: NFMRI is assisting the State Trustees Australia Foundation in supporting innovative cancer research in Victoria. Together we have supported Prof. Stephen Fox's diagnostic research project at the Peter MacCallum Cancer Centre.

New Grants Approved in 2023

From grant rounds held during 2023, a total of seven new grants were approved (a total of $1,057,886) and announced in 2023:

Prof. Russell Dale **University of Sydney** **$137,324 (2024-2025)**

"Brain RIBO-STRESS signature: a biomarker of neurodevelopmental and neuropsychiatric disorders"

Prof. Russell Dale

Neurodevelopmental disorders affect 10% of children and include autism, ADHD, Tourette syndrome and schizophrenia – some of the biggest disorders of the developing brain. At present, treatment is supportive only, and there are no treatments that target 'disease mechanisms'. There is increasing evidence that, in addition to genetic vulnerability, the expression of neurodevelopmental disorders is mediated by environmental factors that stress the body and brain (infections, trauma, stress, inflammation during pregnancy or early life). Using single cell RNA sequencing and proteomics, Professor Dale and his team have identified a biomarker signature in the blood of children with neurodevelopmental disorders that shows that their cells are stressed, and the immune system is not functioning normally.

Funding provided by an anonymous partner and NFMRI will help support Professor Dale and his team to validate these findings in larger cohorts, which will in turn consolidate their intellectual property and commercial opportunities.

Dr. Pierre Qian **The University of Sydney** **$180,000 (2024-2025)**

"Mu Microwave catheter for treatment of hypertension"

Hypertension affects 1 in 3 adults and is the strongest modifiable risk factor for cardiovascular disease, yet only half of patients achieve target blood pressure control and up to 1 in 8 needs ≥3 medications. New antihypertensive therapies are urgently needed to address the growing cardiovascular disease burden.

Dr. Pierre Qian (L) and research team

Renal nerve hyperactivity is a driver of hypertension. Renal denervation (RDN) using catheters placed into the renal artery to destroy with heat the surrounding nerves can reduce blood pressure. Conventional renal denervation systems use radiofrequency electrical current to generate heat but cannot be applied circumferentially around the artery and are too shallow to reach many of the renal nerves.

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 will help support 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.

Dr. Jenna Ziebell **University of Tasmania** **$264,485 (2023-2025)**

"Alternate drivers of Alzheimer's disease: Are microglia the problem?"

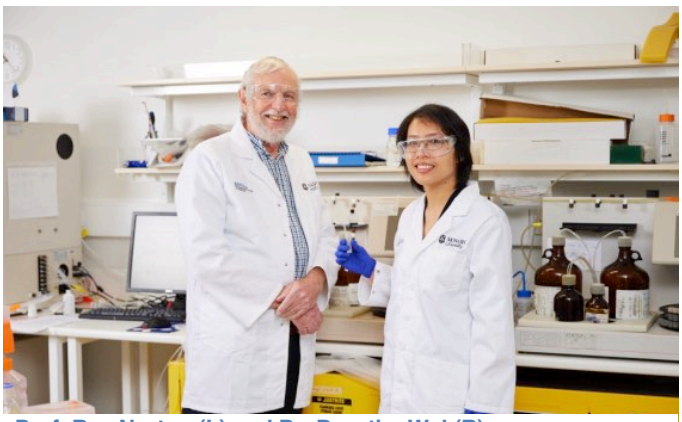
L-R: Dr. Jenna Ziebell, Dr. Yasmine Doust, Ms. Stephanie Hutt, Dr. Nina Daniels

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 will investigate whether transplanting microglia from "healthy" mice diminishes disease burden. Furthermore, they will examine whether transplanting microglia from "Alzheimer's disease" mice changes neuropathology with ageing. This study design will investigate these factors in both biological sexes. This project is funded in partnership between The Mason Foundation (managed by Equity Trustees) and NFMRI.

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.



Prof. Ray Norton (L) and Dr. Dorothy Wai (R)

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 will help 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.

Prof. Bernard Flynn **Monash University** **$189,400 (2023-2024)**
"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 will help support a preclinical proof-of-concept for a gastrointestinal restricted antifibrotic drug that inhibits known a biomolecular mediator of fibrosis, ALK5.

Prof. Michael Good AO **Griffith University** **$50,000 (2024)**
"Dr. John Raftos AM Award – 2024"

Prof. Michael Good AO was granted the 2024 Dr. John Raftos AM Award in recognition of his achievements. The Award includes a $50,000 prize in the form of a research grant to support the researcher's activities.

A/Prof. Peter van Wijngaarden **Centre for Eye Research Australia** **$50,000 (2024)**
"Dr John Raftos AM Award – 2024"

A/Prof Peter van Wijngaarden was granted the 2024 Dr. John Raftos AM Award in recognition of his achievements. The Award includes a $50,000 prize in the form of a research grant to support the researcher's activities.

Grants with Funding Continued in 2023

Following recommendations of our Research Advisory Committee, the Board approved $803,158 in grant payments supporting 14 projects during the 2023 calendar year:

Researcher	Institute	Focus Area	Total 2023	Total funding commitment
Dr. Livia Carvalho	Lion's Eye Institute	Eye diseases	$52,500	$145,000
Prof. Denise Doolan	James Cook University	Malaria	$72,500	$290,000
A/Prof. Linda Wakim	Peter Doherty Institute	Influenza	$60,000	$145,000
A/Prof. Lyndsey Collins-Praino/A/Prof. Andrew Care*	University of Adelaide	Alzheimer's disease	$62,498	$249,990
Dr. Jenna Ziebell*	University of Tasmania	Alzheimer's disease	$54,393	$264,485
Dr. Dorothy Wai*	Monash University	Alzheimer's disease	$29,354	$186,677
A/Prof. Branka Grubor-Bauk	University of Adelaide	Zika virus	$20,000	$220,000
Prof. Nicholas Opie	The University of Melbourne	Paralysis	$12,500	$50,000
A/Prof. Vivien Chen**	ANZAC Research Institute	Cancer	$93,250	$193,000
Prof. Jake Shortt	Monash University	Cancer	$91,640	$190,000
A/Prof. Peter van Wijngaarden*	Centre for Eye Research Australia	Alzheimer's disease	$30,000	$40,000
Dr. Jonathan Danon*	The University of Sydney	Alzheimer's disease	$65,228	$143,904
Dr. Prashant Bharadwaj*	Edith Cowan University	Alzheimer's disease	$109,295	$250,000
Dr. Joshua Ooi	Monash University	Lupus	$50,000	$50,000
			$803,158	**$2,418,056**

**Supported by NFMRI and The Mason Foundation (managed by Equity Trustees)*
***Supported by NFMRI, the NSW Community Foundation and the NSW Community Foundation Nicholas and Phyllis Pinter Trust & Vernon Sinclair Fund (managed by Equity Trustees)*

Projects Supported in 2023

The following projects were supported by NFMRI and its partners during 2023:

Dr. Livia Carvalho **Lions Eye Institute** **$145,000 (2023-2024)**

"Investigating novel bile acid nanocapsules carrying neuroprotective agents for the treatment of retinitis pigmentosa"

Retinitis pigmentosa is a rare, inherited degenerative eye disease that causes severe vision impairment. Dr. Livia Carvalho and her team are developing a safe and effective nanocapsule system that can support sustained drug delivery into the eye for prolonged beneficial effects to help treat retinitis pigmentosa.

Their preliminary research has shown that intravitreal administration into the eye of a neuroprotective drug can provide a transient protective effect in mouse models of inherited retinal diseases. In these animals, treatment was capable of reversing cell death temporarily in the first few days after treatment, but the effect was lost after a week. This project will establish a multidisciplinary collaboration between Dr. Carvalho's vision research lab and Dr. Al-Salami's bio-nanotechnology development lab to address this unmet need. Funding for this proof-of-principle project will be used to test the long-term treatment efficacy of this neuroprotective drug using a novel bile acid-based nanocapsule system compatible with direct eye delivery.

Prof. Denise Doolan **James Cook University** **$290,000 (2023-2024)**

"Development of a multi-antigen T-cell malaria vaccine"

Despite the dramatic decline in mortality and morbidity during the past decade, there is now a resurgence of malaria. Vaccination with the current lead malaria vaccine candidate can induce partial protection, but efficacy is low (<35%) and short-lived. To address this need, Prof. Doolan and her team have been pursuing an innovative approach to malaria vaccine development and together have identified four novel high-potential targets for a malaria vaccine to protect against all species of malaria. Each of these antigens can reduce liver-stage and blood-stage parasite burden against same-species and cross-species sporozoite challenge in mice, when administered in either of two vaccine regimens. Funding for this project will be used to enhance the pre-clinical package to support the translation of these lead antigens through the pre-clinical pipeline to phase 1/2a clinical testing, strengthen the IP portfolio, and attract a commercialisation partner.

A/Prof. Linda Wakim **Doherty Institute, The University of Melbourne** **$145,000 (2023-2024)**

"A novel universal influenza virus vaccine that provides long term protection against the flu"

Vaccination remains the best way to prevent human influenza disease, a highly contagious and rapidly spreading acute respiratory disease. However, current influenza vaccines are sub-optimal relying on annual reformulation and delivery to the population to maintain protective immunity. Current vaccines also offer no protection during a pandemic outbreak, where the emergence of novel viruses from animal reservoirs spread rapidly worldwide, having a devastating impact on global health. This project unites A/Prof. Linda Wakim, Prof. Greg Qiao, Prof. Bernd Rehm

together with the WHO Collaborating Centre for Reference and Research and Influenza (CCRRI) to develop a novel “one-shot’ intranasal influenza vaccine that provides long term, cross-strain protection against seasonal and newly emerging pandemic strains.

Funding will be used to develop an improved vaccine formulation and perform key in-vitro and in-vivo pre-clinical testing. While the initial focus of this project is to develop an intranasal influenza virus vaccine, it is envisaged that the formulation will be developed with flexibility so that it can be easily and rapidly adapted to target other clinically relevant respiratory viruses (ie SARS-CoV-2).

A/Prof. Lyndsey Collins-Praino / A/Prof. Andrew Care **The University of Adelaide** **$249,990 (2020-2023)**

“Cage vs. Age”: Development of an innovative nanotechnology to halt the spread of abnormal Tau protein in Alzheimer’s disease”

Dementia is a significant global problem affecting 50 million people worldwide, with a staggering 10 million new cases diagnosed each year (WHO). Alzheimer’s disease (AD) is the most common cause of dementia, accounting for 60-70% of all cases. A major contributor to the spread of AD throughout the brain is the transmission of an abnormally folded protein called tau. Tau is released from diseased brain cells and taken up by healthy cells, triggering misfolding and aggregation of tau within those cells. Thus, AD spreads throughout the brain. The aim of the project is to engineer an innovative nanotechnology that can target and disrupt tau pathology. If successful, such a strategy would lead to modification of the brain mechanisms of AD and the potential development of a treatment strategy that would be of significant benefit to the millions of individuals currently suffering from AD. Funding from The Mason Foundation (managed by Equity Trustees) and NFMRI will allow for further engineering of the nanotechnology platform, as well as evaluation of its safety for neurological indications.

Dr. Jenna Ziebell **The University of Tasmania** **$264,485 (2023-2025)**

“Alternate drivers of Alzheimer’s disease: A 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 will investigate whether transplanting microglia from “healthy” mice diminishes disease burden. Furthermore, they will examine whether transplanting microglia from “Alzheimer’s disease” mice changes neuropathology with ageing. This study design will investigate these factors in both biological sexes.This project is funded in partnership between The Mason Foundation (managed by Equity Trustees) and NFMRI.

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.

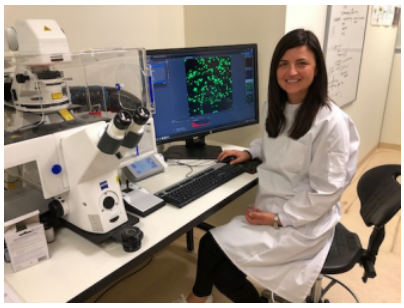
Derived from a natural peptide from scorpion venom, HsTX1[R14A] targets a surface protein on brain immune cells that become overactive in AD. Blocking this protein reduces the activity of these cells and improves memory in a mouse model of AD. However, assessing the biodistribution and demonstrating 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 will help 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.

A/Prof. Branka Grubor-Bauk **University of Adelaide** **$220,000 (2021-2023)**

"Novel T cell-based DNA vaccine against Zika virus infection"



A/Prof. Grubor-Bauk has developed an innovative, patented and thermally stable Zika virus DNA vaccine that encodes Zika virus non-structural protein 1, NS1. Extensive evaluation of this vaccine in mouse models of Zika infection has shown that it induces strong immunity and confers complete protection against systemic Zika infection. Funding from NFMRI is helping to progress the development a novel Zika virus vaccine by completing pre-clinical evaluation of this Zika virus DNA vaccine enabling Phase I Human Clinical Trials and generating data for regulatory filing.

Prof. Nicholas Opie **The University of Melbourne** **$50,000 (2022-2023)**

"Dr John Raftos AM Medal – Endovascular Neuromodulation"

Following the completion of a successful first-in-human trial evaluating the safety and efficacy of the Stentrode to restore communication and independence to those severely paralysed by enabling direct brain control of a computer, Prof. Nicholas Opie is now working to expand the potential clinical applications of his technology through development of a Stentrode suitable for efficacious cortical stimulation.

A/Prof. Vivien Chen **ANZAC Research Institute** **$193,000 (2022-2024)**

"Novel biomarker to predict thrombotic risk in myeloproliferative neoplasms"

A/Prof. Chen's team have invented a diagnostic assay that identifies hyperactive platelets known as "procoagulant platelets". These are increased in patients with pathological blood clots, such as those causing heart attack and stroke, but are also increased in a blood cancer called essential thrombocythaemia (ET), in which clotting complications are common (40% of patients) and responsible for 40% of deaths. Until now, no blood test has been able to predict which ET patients will develop blood clots or progress to fibrosis/leukaemia.

This intellectual property protected assay is performed on standard patient blood samples on a clinical flow cytometer – thus has potential to be adapted for use in diagnostic labs around the world. The additional innovation involves coupling with their novel mathematical algorithm to enumerate a particular sub-population of platelets that appears highly predictive of further blood clots (including stroke) in ET patients.

This project is supported in partnership with The NSW Community Foundation, The NSW Community Foundation – Nicholas and Phillis Pinter Trust, the Vernon Sinclair Fund (all managed by Equity Trustees) and NFMRI. This innovation has successfully gone through a development

phase proof of concept and internal validation using blood from ET patients, and funding provided will help support further validation studies across different flow cytometry platforms.

Prof. Jake Shortt **Monash University** **$190,000 (2022-2023)**

"Dual-targeted inhibitors of BET bromodomains and PI3-kinase for cancer therapy"

In partnership with Prof. Philip Thompson's team at the Monash Institute of Pharmaceutical Sciences, Prof. Shortt's group has developed a designer drug that targets PI3K and BET proteins at the same time in the same cancer cell – a dual-targeted PI3K and BET inhibitor. Both PI3K and BET inhibitors have been developed and show significant clinical activity, particularly in the context of blood cancers. However, the 'addiction' of a cancer cell to a particular pathway or process (ie. PI3K, BET) is not absolute. Therefore, the innovation of dual-targeting cancer drugs represents a potential step-change technology, taking the established models of cancer treatment, such as combination therapies, to a new level and attempting to defeat cancers on multiple fronts in a single compound. A dual acting drug puts the two activities in the 'same place at the same time', potentially enhancing drug synergy, reducing toxicity and drug resistance. The general concept is gathering traction in the research community and our studies to date of this dual targeting paradigm (PI3K and BET inhibition) shows great promise.

Prof. Shortt and Prof. Thompson's teams have demonstrated that targeting both PI3K and BET proteins together has synergistic anticancer activity, in part due to the ability to prevent cancer cell adaptation and resistance to the inhibition of each target in isolation. NFMRI funding will help support further therapeutic efficacy studies.

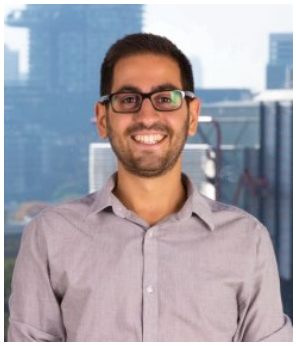
A/Prof. Peter van Wijngaarden **Centre for Eye Research Australia** **$40,000 (2022-2023)**

"A retinal imaging biomarker of Alzheimer's disease"

This project seeks to generate key experimental data to show that the retinal signal that they are measuring in Alzheimer's disease is attributable to amyloid beta. To do so, they will modify a new type of retinal camera that they have developed for human use to image the eyes of mice that have been genetically modified to demonstrate features of Alzheimer's disease. This will enable A/Prof. van Wijngaarden and his team to compare their imaging findings in living mice with comparable images from humans and with mouse retinal tissue studies that will measure the levels and subtypes of amyloid beta. This evidence will be important to gain approval for the use of this imaging technology in the clinic. Doing so would mean that it will be possible to detect people with or at risk of Alzheimer's disease during routine eye examinations. Detecting the earliest stages of the disease may eventually enable the commencement of disease-modifying treatments at the right time before irreversible brain damage occurs.

This project is funded in partnership between The Mason Foundation (managed by Equity Trustees) and NFMRI.

Dr. Jonathan Danon **University of Sydney** **$143,904 (2022-2024)**
"Innovative molecules for imaging neuroinflammation in Alzheimer's disease"



Dr. Danon and his team have recently developed a set of novel radiotracers designed to detect neuroinflammation with unprecedented sensitivity in humans of all genetic backgrounds. This grant is funding a crucial collaborative study that will be performed at the Centre for Advanced Imaging at the University of Queensland. They will validate the ability of these compounds to image neuroinflammation in preclinical animal models of Alzheimer's disease using positron emission tomography (PET), generating data that will strengthen their IP position and take the innovation another step closer to preclinical first-in-human trials, commercialisation, and global distribution. These studies will be fundamental for translating their preliminary results into clinically useful tools that could help millions of people globally who live with Alzheimer's disease.

This project is funded in partnership between The Mason Foundation (managed by Equity Trustees) and NFMRI.

Dr. Prashant Bharadwaj **Edith Cowan University** **$250,000 (2023-2024)**
"Analysis of neurofilament biomarkers for Alzheimer's disease, Parkinson's disease, Multiple sclerosis and childhood dementia"

Currently, the diagnosis of Alzheimer's disease (AD) is difficult, expensive, and there are no reliable biological indicators of the disease. Dr. Bharadwaj and his team aim to develop a blood test for cognitive loss in AD by identifying a signature of the disease based upon specific proteins. The NFL protein has been shown to be a good indicator of many forms of neurodegeneration and not specific to AD only. Recent findings suggest the occurrence of distinct NFL variants in the brain and blood. Furthermore, NFL variants in AD blood appear to be different compared to healthy individuals. This project is a novel concept and aims to characterise these variants in different types of dementias. This funding will also support the use of mass spectrometry to help determine if specific variants are differently expressed in AD and identify whether these modifications form a signature unique for AD. If successful, findings from this study could ultimately improve the accuracy of AD diagnosis.

This project is funded in partnership between The Mason Foundation (managed by Equity Trustees) and NFMRI.

Dr. Joshua Ooi **Monash University** **$50,000 (2023)**
"Dr John Dixon Hughes OAM Medal"

In a landmark 1st author Nature paper, Dr. Ooi showed that regulatory T cells (Tregs) specific for self-proteins can be used to specifically treat the cause of autoimmune diseases, like lupus. Dr. Ooi then started his own independent laboratory and devised a platform that can genetically engineer GMP-ready Tregs specific for any self-protein. These cell products are called Targeted Tregs.

Dr. Ooi has applied his unique platform to develop Targeted Tregs specific for lupus. Lupus patients suffer from multi-organ dysfunction due to an autoimmune response that attacks its own tissues. Using lupus patient blood samples to devise a novel humanised mouse model of lupus, Dr. Ooi has shown that the lupus-specific Targeted Treg product effectively stops the pathogenic autoimmune response and effectively cures disease.

In addition to the lupus-specific Targeted Treg product (which led to a large research collaboration and commercialisation deal with a multinational pharma company), Dr. Ooi has developed and filed patents for Targeted Tregs specific for other severe autoimmune diseases including Sjogren's syndrome and autoimmune vasculitis.

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. With an increasing amount of success stories, we are updating our statistics and plan to release the update at our 2024 Conference.

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'
- 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

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
- Term sheet for a VC-backed seed funding start-up company, $2,500,000

Gastrointestinal-directed S1P1-receptor modulators in the treatment of inflammatory bowel disease (2021, $135,700)
- Commercial discussions currently underway

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

Prof. Roger Chung, Macquarie University & Celosia Therapeutics

***Preclinical evaluation of novel therapies for clearance of TDP-43 in amyotrophic lateral sclerosis* (2019, $183,488)**
- Fight MND Foundation Drug Development Grant, $1,000,000
- Fight MND Foundation Impact Grant, $250,000
- Spin-off company, Celosia Therapeutics

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
- Spin-off company NanomedX with private seed funding of over $790,000

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

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 Enesi Pharma UK
- Industry collaboration with PharmaJet (CO, USA)
- Collaboration with University of Wisconsin - Madison (WI, USA)

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

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 analysis of its strategic outcomes to date in 2021.

Although a number of research projects are ongoing and expected to succeed in attracting next-step partners, an analysis of projects commencing between 2013-2019 yielded better than expected results. Sixty-two percent of projects supported achieved our primary measure of success in attaining next-step partners leveraging over $10 of external funding for every dollar of grant funding – a total of $45.3 million. Five innovations have commenced clinical trials and one innovation is delivering benefits to cancer patients. 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).

62% of projects supported by NFMRI attained next-step partners

Strategic success measures	Strategic success outcomes
Attract next-step partners including industry and venture capital	Sixty-two percent of projects (16/26) achieved our primary measure of success in attaining next-step partners
Become clinical trial ready	Five innovations have commenced clinical trials and one innovation is delivering benefits to cancer patients.
Leverage the funding, expertise and experience of next-step partners	Leveraging over $10 of external funding for every dollar of grant funding – a total of $45.3 million.

"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." -

Our People

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

Directors

Directors, qualifications and special responsibilities		Experience
Dr. Rob Sauer **Chairman**	2017-	• Chairman, Echoview Holdings Pty. Ltd. • Director, Biopharm Australia Pty Ltd. And Arthropharm Pty. Ltd. • Admitted as solicitor of the Supreme Court of New South Wales in 1974 • Admitted as Certified Practicing Accountant in 1980 Formerly: • A Founding Director and shareholder of ResMed • Partner, DibbsBarker (1978-2008) • Inaugural Chairman, 150% R&D Tax Concession Committee • Inaugural Chairman, Tassal Ltd (1984-1990)
Mr. John Harkness	1984 -	• NFMRI Chairman (2001-2018) • Partner of KPMG for 24 years and National Executive Chairman for five years • 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 • Fellow of the Institute of Chartered Accountants in Australia and the Australian Institute of Company Directors
Dr. Kevin Hellestrand	2001 -	• Cardiologist and Cardiac Electrophysiologist for 35 years • Co-author of more than 50 journal articles, reviews and book chapters • 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 • Member of the North Shore Heart Research Foundation
Mr. Anthony McGrath *Honorary Secretary and Director*	1997 -	• Founding Partner, McGrathNicol • Board Member, National Rugby League

		• Non-Executive Director, Servcorp Limited • Member, Institute of Chartered Accountants in Australia • Member, Australian National University Finance Committee • Board Member, 360 Capital Ltd.
Ms. Alison Choy Flannigan *Company Secretary*	2014-	• Company Secretary since 2014 • Partner, Co-Leader, Health & Community, Hall & Wilcox • Member, NSW Law Society • Member, Australian Institute of Company Directors • Media officer, Healthcare and Life Sciences Committee, International Bar Association • Member, AusBiotech
Emeritus Professor A. Ian Smith Chairman, Research Advisory Committee	2017-	• Emeritus Professor, Faculty of Medicine Nursing and Health Sciences Monash University (from 2020) • Director and Chair, Population Health Research Network (from 2017) • Chair, EuroBioimaging Scientific Advisory Board (from 2020) • Director and Chair, Queensland Cyber Infrastructure Foundation Limited (from 2020) • Member EMBL Council and Finance Committee (from 2020) • Managing Director AIS Life Science Consulting Pty Ltd (from 2021) • Chair, EMBL Australia Council (from 2021) Director, St Vincent's Institute for Medical Research (from 2022)
Prof. Elaine Saunders *Retired December 2023*	2018-2023	• Adjunct Professor, Faculty of Health, Arts & Design, Swinburne University of Technology • Managing Director, Bingarra ScaleUp Solutions
Ms. Alison Gartner	2020-	• Co-founder, Evidentli Pty. Ltd. • Project Manager, Radiopharm Theranostics Ltd. Formerly: • Portfolio Manager, Asia Union Investments Pty. Ltd.
Emeritus Professor Douglas E. Joshua AO	2020-	• Professor Emeritus, The University of Sydney • Consultant Hematologist, Royal Prince Alfred Hospital

	• Scientific Advisor and Member, International Myeloma Foundation • Chairman Scientific Research Committee ARCBS Formerly: • Head of Clinical and Laboratory Hematology, Sydney Cancer Centre • Head of Haematology, Sydney Local Health District • Alan Ng Professor in Medicine at the University of Sydney • Director, Institute of Hematology, Royal Prince Alfred Hospital

Research Advisory Committee

Chairman **Emeritus Professor A. Ian Smith**	Emeritus Professor, Faculty of Medicine Nursing and Health Sciences Monash University
Prof. Elizabeth Gardiner	Director of the John Curtin School of Medical Research at the Australian National University
Emeritus Professor Douglas E. Joshua AO	Emeritus Professor in Haematology at the University of Sydney and Consultant Haematologist at RPHA.
Prof. Mark von Itzstein	Director of the Institute for Glycomics at Griffith University
Alison Gartner	Lifesciences and healthcare investment professional
Dr. Noel Chambers	CEO with over 35 years' experience in biomedical research, innovation, commercialisation and biotechnology
Dr. Andrew Cottrill	Chief Medical Officer, HCF
Prof. Lisa Horvath *(retired August 2023)*	Director of Medical Oncology and Director of Research, Chris O'Brien Lifehouse

Management and Administration

Dr. Noel Chambers	Chief Executive Officer
Mrs. Nancy Ranner	Grants, Communications and Engagement Coordinator
Mrs. Linda Hearne	Bookkeeper and Administrator

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