



## Life-Saving and Job Creating Medical Research – research grant opportunities

The Australian Government is building on its commitment to life-saving medical research. It is providing \$424.3 million in new grants and programs to assist researchers around the country to tackle problems from chronic fatigue syndrome and skin cancer, to COVID-19, and mental health.

The funding, which is divided among new grants announced and newly opened opportunities, comes from the Medical Research Future Fund (MRFF) and the National Health and Medical Research Council (NHMRC).

The MRFF cements Australia's reputation as a world leader in health and medical research. It supports the search for cures and treatments, including for rare cancers, and gives researchers and industry certainty and direction.

The NHMRC creates new knowledge and builds research capacity through investment in the highest quality health and medical research and the best researchers. It helps translate scientific discoveries into real world outcomes that will benefit communities in Australia and around the world.

Among the successful grant recipients are:

- Deakin University which receives more than \$1 million under the Targeted Calls for Research grant opportunity, for work using stem cells to better understand the role of cell powerhouses in myalgic encephalomyelitis/chronic fatigue syndrome.
- Almost \$10 million under the Pathogen Genomics Grant Opportunity, to support work at the University of Melbourne establishing a national genomic platform to analyse illness including major infectious diseases.
- The University of Queensland which will receive almost \$725,000 under the Development Grants program, towards the development of a new drug to help prevent skin cancer in organ transplant recipients.

New program rounds include:

- \$110 million for 2021 Frontier Health and Medical Research, open on 7 October 2020
- \$7.5 million for Efficient Use of Existing Medicines, open on 7 October 2020
- \$44 million for 2021 Centres of Research Excellence, open on 21 October 2020
- \$9 million to research causes, biology and progression of cancer in children and young adults

### **Why is this important?**

The strength of Australia's health and medical research sector keeps us at the forefront of development of new treatments and therapies and fresh insights and understandings to tackle the wicked problems in health.

Investing in health and medical research helps research teams progress their work from bench to bedside, from laboratories into clinics and hospitals, and from concept into life-saving treatments and therapies to improve the lives of more Australians.

### **Who will benefit?**

Dozens of research teams around Australia will directly benefit as recipients of funding grants to investigate ways to improve the health of Australians. The downstream benefits from funding medical research not only include improved health outcomes for Australians, but also significant educational and economic opportunities.

### **How much will this cost?**

This will cost \$424.3 million in 2020–21.

## Grant Opportunity Outcomes

Medical Research Future Fund – Grant Opportunity Outcomes	
COVID-19 Immunological Studies	<ul style="list-style-type: none"> <li>• \$3 million</li> <li>• 3 grants awarded</li> </ul>
COVID-19 Mental Health Research	<ul style="list-style-type: none"> <li>• \$3.1 million</li> <li>• 6 grants awarded</li> </ul>
Pathogen Genomics	<ul style="list-style-type: none"> <li>• \$27 million</li> <li>• 4 grants awarded</li> </ul>
Rural, Regional and Remote Clinical Trials	<ul style="list-style-type: none"> <li>• Up to \$125 million</li> <li>• 3 grants awarded</li> </ul>

National Health and Medical Research Council – Grant Opportunity Outcomes	
2020 Centres of Research Excellence	<ul style="list-style-type: none"> <li>• \$35 million</li> <li>• 14 grants awarded</li> </ul>
Partnership Projects 2019 Peer Review Cycle 3 (PRC3)	<ul style="list-style-type: none"> <li>• \$20.4 million</li> <li>• 22 grants awarded</li> </ul>
Targeted Call for Research into Myalgic Encephalomyelitis (ME)/Chronic Fatigue Syndrome (CFS)	<ul style="list-style-type: none"> <li>• \$3.3 million</li> <li>• 3 grants awarded</li> </ul>
2020 Development Grant scheme	<ul style="list-style-type: none"> <li>• \$15 million</li> <li>• 18 grants awarded</li> </ul>
2020 Commonwealth Health Minister's Award for Excellence in Health and Medical Research	<ul style="list-style-type: none"> <li>• Associate Professor Eric Chow will receive \$50,000 to support his research in addition to his \$1.5 million five-year Investigator Grant</li> </ul>

## Grant Opportunity Openings

Medical Research Future Fund - Grant Opportunities Opening		
Grant Opportunity	Available funding (\$)	Opening
2021 Frontier Health and Medical Research	110,000,000	Opening 7 October 2020
Maternal health and the first 2000 days + Exercise and Nutrition + Early Childhood	12,000,000	Opening 12 October 2020
Efficient Use of Existing Medicines	7,500,000	Opening 12 October 2020
Primary Health Care Research Data Infrastructure	10,000,000	Launching 12 October 2020
Childhood Cancer Research Grant Opportunity	9,000,000	Opening 7 October 2020

National Health and Medical Research Council - Grant Opportunities Opening		
Grant Opportunity	Available funding (\$)	Opening
2021 Centres of Research Excellence Four streams: <ul style="list-style-type: none"> <li>• clinical</li> <li>• health services</li> <li>• public health</li> <li>• dementia research</li> </ul>	44,000,000	Opening 21 October 2020 Closing 2 December 2020

## Medical Research Future Fund – Grant Opportunity Outcomes

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
2020 COVID-19 Immunological Studies	999,999.30	University of Melbourne	Defining immune responses in COVID-19 to understand susceptibility and target treatments	An advanced COVID-19 immunology program which will define protective and long-lasting immunity against SARS-CoV-2 and delineate detrimental immunopathology in COVID-19. In-depth immune studies in wide ranging cohorts will provide key insights into the rational design of vaccines and therapies to limit disease spread and protect high-risk groups.
2020 COVID-19 Immunological Studies	994,584.00	University of New South Wales	Cellular and molecular correlates to SARS CoV2 immunity in convalescent patients	Studying the natural infection and the level of immunity across patient groups with varying disease characteristics will support: <ul style="list-style-type: none"> <li>- understanding the immunological correlates of protection against SARS-CoV-2 infection</li> <li>- understanding how genetic variation between SARS-CoV-2 isolates (as the virus mutates) affects the immune response of different patient groups.</li> </ul>
2020 COVID-19 Immunological Studies	998,876.00	The Council of the Queensland Institute of Medical Research	Defining SARS-CoV-2 immune maintenance in the Australian population	Control of viruses in humans is dependent on B cells that produce antibodies to recognise and neutralise virus particles, and T cells that recognise and remove virally infected cells. Currently, we do not know how long immune cells live for in individuals who have recovered from COVID-19. This must be determined in order to assess the risk of reinfection and identify which part of the population may benefit from vaccine boosters if a COVID-19 vaccine becomes available.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
2019–20 Pathogen Genomics	9,999,499.00	University of Melbourne	Precision Public Health in Australia through Integrated Pathogen Genomics	The PPHAGE multidisciplinary team will deliver a large scale integrated public health pathogen genomics research program, to demonstrate utility, cost-effectiveness, and capacity for translation of genomics into public health nationally. The program will deploy a national genomic platform (AusTrakka), for consistent analysis and reporting and, working with health departments and public health laboratories, will implement national genomics based responses to major infectious disease, focusing on respiratory and vaccine preventable diseases, foodborne diseases, sexually transmitted infections and antimicrobial resistance. Evaluation programs will determine cost-effectiveness and public health utility of PPHAGE.
2019–20 Pathogen Genomics	6,629,162.00	University of New South Wales	H2Seq: Viral genomics for public health interventions in HIV and HCV	This project will establish national networks, governance and infrastructure for improved public health metadata collection of HIV and hepatitis C infections sharing of existing viral sequence datasets, and deployment of high throughput viral sequencing and bioinformatic systems for 'near real time' molecular epidemiological analyses. H2Seq will deliver actionable data to guide national and regional public health interventions, with cost-saving outcomes.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
2019–20 Pathogen Genomics	3,403,772.00	Monash University	Genomics, Digital Health and Machine Learning: the SuperbugAi Flagship	The SuperbugAi Flagship will integrate pathogen genomic data and electronic health care data to address the problem of antimicrobial resistance in the health care system. The research program will involve testing, clinical validation and implementation of a decision support system for precision medicine and AMR treatment and the creation of an AMR tracking, and response system. This research will lead to earlier detection of AMR, personalised treatments for improved patient survival, and prevention of AMR outbreaks in the health care system.
2019–20 Pathogen Genomics	6,984,360.00	University of Melbourne	META-GP: Delivering a Clinical Metagenomic s Platform for Australia	Clinical metagenomic next-generation sequencing (mNGS) is a transformative approach in microbial diagnostics and patient care, because it can be used to detect and characterise all known pathogens - bacterial, viral, fungal, parasitic - in one single test.  The META-GP program will develop and implement clinical metagenomic diagnostics for infectious diseases in Australia. By the end of this program Australia will have the first accredited, nationally-accessible network of laboratories that can apply metagenomic approaches in patient care.
2020 COVID-19 Mental Health Research	218,139.85	University of Canberra	Implementing Artificial Intelligence (AI) to enhance Lifeline's crisis support service capacity in response to COVID-19 and emerging crises	Lifeline is Australia's national 24-hour crisis service for the general community. This research aims to boost Lifeline's capacity by using artificial intelligence to enhance its ability to respond rapidly and effectively to emerging community mental health crises.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
2020 COVID-19 Mental Health Research	610,922.75	Monash University	Mobilising and empowering parents in the COVID-19 mental health response: A single-arm trial of an enhanced online parenting intervention to improve parent risk and protective factors for adolescent mental health	Project to reduce the mental health impacts of COVID-19 and risk of longer-term adolescent mental health problems by enhancing their parents' ability to support them through the pandemic. It will involve parents in a co-designed process that learns and responds to changing needs; to dynamically adapt an evidence-based parenting program integrated with an online peer-support network for parents. The research will empower parents in their capacity to support their adolescents' mental health.
2020 COVID-19 Mental Health Research	748,750.00	University of Technology Sydney	Identifying the mental health effects and support needs of people bereaved during and following COVID-19: A Mixed Methods Project	Bereavement is linked with mental health conditions such as major depression, anxiety and suicidal ideation. Many of the risk factors for poor mental health have been amplified by the COVID-19 pandemic restrictions on gatherings and physical contact. This project will quantify the mental health outcomes and support needs of bereaved individuals impacted by COVID-19.
2020 COVID-19 Mental Health Research	885,302.50	Deakin University	Evaluating the effectiveness of lifestyle therapy versus standard psychotherapy for reducing depression in adults with COVID-19 related distress: The CALM trial	CALM is an 8-week group-based, telehealth, lifestyle program for those with elevated psychological distress. It is delivered in Victoria in a partnership between Deakin University & Barwon Health's Mental Health, Drug and Alcohol Services. It is anticipated that CALM will be as effective and cost-effective as therapy for reducing depression.



Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
2020 COVID-19 Mental Health Research	425,803.45	University of Wollongong	Narratives of Recovery - Practices supporting community mental health and wellbeing post bush fires and COVID-19	Some communities have implemented their own strategies to address mental health problems following COVID-19. Local responses to community need are grounded in contextual knowledge and use existing resources. This project will investigate two different interventions delivered on the South Coast of NSW. The research will provide evidence about ways the interventions ameliorated crises. The outcomes will include recommendations for place-based, culturally safe approaches to mental health care.
2020 COVID-19 Mental Health Research	232,159.00	University of New South Wales	A text mining and data linkage approach to investigate the mental health needs of the population during the COVID-19 period	The impact of COVID-19 is expected to affect individuals with increases in mental illness, suicide, and self-harm events. The police are often the first to respond to these events, and their records contain valuable information that has not been used for mental health reporting purposes. This project will use an automated method to process police records of the last four years and investigate whether there have been any increases in mental illnesses before and during the COVID-19 crisis.
2020 Rural, Regional and Remote Clinical trials Enabling Infrastructure	Up to \$125 million for all three projects, pending grant negotiations	Border Medical Oncology Research Unit	ReViTALISE Project Bridging the metro-regional trials gap by 2025	ReViTALISE will add Mildura Base Hospital and Latrobe Regional Hospital as new sites to Regional Trials Network Victoria and expand existing sites and introduce 7 unique projects across the network increase trial participation in Regional Rural and Remote (RRR) areas by 2025, improve models of care for Indigenous, palliative and supportive care patients, establish new research programs in older patients, improve research literacy in the regional workforce of a Regional Research Teaching Hub and improve access to registry and immunotherapy trials.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
2020 Rural, Regional and Remote Clinical trials Enabling Infrastructure		Department of Health, Queensland	The Australian Teletrial Program - access to clinical trials closer to home	This program brings clinical trials closer to the homes of regional, rural and remote (RRR) patients by implementing the Australasian Teletrial Model (ATM) across Australia. The program creates Regional Clinical Trial Coordinating Centres (RCCC) to support clinical trials to adopt a scaled-up ATM. The RCCCs are supported by policy cohesion ensuring national regulatory harmonisation, equipment and logistics, education and promotion, recruitment boosting initiatives, including primary care. The impact and evaluation will measure success based on equitable numbers of regional, rural and remote patients on clinical trials, increased workforce capacity and patient outcomes.
2020 Rural, Regional and Remote Clinical trials Enabling Infrastructure		NSW Ministry of Health	Improving access to innovative health care in rural, regional and remote NSW and ACT	This proposal led by NSW Health (MoH) and ACT Health will address clinical trials inequality for 1.8M people in rural regional and remote (R3) NSW. The project will include a new model of delivery, "virtual clinical trials", enhance traditional approaches to trials, provide R3 based skilled staff to support trials delivery, and professional education. MoH will coordinate and embed the proposal within the health system, with strong governance, and active collaboration with other infrastructure projects to achieve national cohesion.

## National Health and Medical Research Council, Grant Opportunity Outcomes

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Centres of Research Excellence	2,500,000	University of Sydney	NHMRC Centre of Research Excellence for Better Outcomes in Coronary Artery Disease	One Australian suffers a heart attack every 10 minutes, many without any prior warning. What contributes to atherosclerosis beyond traditional risk factors, and how to manage patients that suffer a heart attack despite no risk factors is not well known. This CRE will establish new biomarkers and clinical pathways for detection of subclinical atherosclerosis as well as secondary prevention strategies whilst fostering the cardiovascular research leaders of the future.
Centres of Research Excellence	2,500,000	University of Western Australia	The National Centre for Asbestos Related Diseases (NCARD)	The National Centre for Asbestos Related Diseases studies the deadly cancers mesothelioma and lung cancer. The ongoing Centre of Research Excellence program includes research from the development and genetics of asbestos-related cancers, through to new treatments, novel ways of imaging cancer, and the supportive care of people with these cancers. This program will improve the detection, diagnosis, and treatment of mesothelioma and asbestos-related lung cancer.
Centres of Research Excellence	2,500,000	University of Melbourne	PRE-EMPT: Prediction of Early Mental Disorder and Preventive Treatment - Centre of Research Excellence	Mental health clinicians currently do not have the means to predict which young people with emerging symptoms are most at risk of progressing to serious mental illness. This CRE will help us better understand how mental illnesses develop, identify the risk and protective factors, and introduce tools for use in clinical practice to better predict onset of serious mental illness. This will help with providing and further developing early treatments to delay or prevent the onset of mental illness.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Centres of Research Excellence	2,500,000	University of Newcastle	Centre of Research Excellence in Asthma Treatable Traits (CREATT)	This CRE will focus on personalised medicine in asthma, specifically using the treatable traits approach. It identifies disease management areas of highest importance to people with asthma and health care providers. It will generate new knowledge, develop and strengthen collaborations and train translation focused researchers to develop high quality evidence and translate this to practice.
Centres of Research Excellence	2,500,000	University of Sydney	Centre of Research Excellence in the Prevention of Fall-related Injuries	Fall-related injuries are increasing in Australia. Our rapidly ageing population will lead to even greater numbers of injuries unless effective interventions are widely implemented. This CRE aims to collaboratively prioritise, co-design and test pragmatic cost-effective solutions that are ready for scale up and involve better implementation of effective interventions and generation of new interventions where none are available.
Centres of Research Excellence	2,500,000	University of Western Australia	Good Spirit Good Life: Better health and wellbeing for older Aboriginal and Torres Strait Islander Australians	Aboriginal and Torres Strait Islanders are living to older ages, with numbers of older people expected to double by 2026. Respecting and supporting this population to age well is vital, yet the challenges and impacts of meeting these needs are poorly understood. The world first Good Spirit Good Life Centre for Research Excellence, will deliver the evidence needed to improve health and wellbeing of this group and build the capability of services and systems that support them as they age.

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Centres of Research Excellence	2,500,000	Griffith University	Centre of Research Excellence in Wiser Wound Care	Wounds cause pain, discomfort and can compromise quality of life. They also place patients at risk of various complications such as deadly infections. This CRE in Wiser Wound Care will improve the care provided to hospitalised patients with wounds, resulting in better patient experiences and outcomes and savings to the health system. Almost all patients in hospital have a wound, whether it be a surgical wound, a wound from an intravascular device (drip) or a pressure injury (or bedsore).
Centres of Research Excellence	2,500,000	University of New South Wales	Centre of Research Excellence in Medicines Intelligence	The Centre of Research Excellence in Medicines Intelligence is a co-ordinated research program that will accelerate the development and translation of evidence on prescribed medicines use and outcomes for regulators and payers.
Centres of Research Excellence	2,500,000	Charles Darwin University	Redesigning maternal, newborn and child health services for the best start in life for First Nations families	This is a leading maternity care reform in partnership with First Nation communities and health services. The research has seen improvements in maternal and infant health for First Nation families. This funding will drive expansion to more communities using our innovative RISE Framework: Redesign the health service; Invest in the health and research workforce; Strengthen family capacity; and Embed First Nations governance for the best start in life for First Nation families.
Centres of Research Excellence	2,500,000	University of Sydney	Integrated Community Care for People with Complex Multi-morbidities	The focus will be on reducing hospitalisation through innovative, high quality, collaborative research of home and community-based service systems, including the development of digital and virtual modes of community-based service delivery.

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Centres of Research Excellence	2,500,000	Murdoch Childrens Research Institute	Asia-Pacific Pneumococcal Disease Control in the Pneumococcal Conjugate Vaccine Era	Pneumonia is one of the most common causes of childhood death worldwide. PCV is a vaccine that prevents pneumonia but it is costly; and causes an increase in disease from strains which are not in the vaccine. The CRE will address two outstanding issues: when to switch from a 3 to 2 dose PCV schedule to make it more affordable; and create new understanding of the non-vaccine strains' impact on disease in low- and middle-income countries in the Asia-Pacific region.
Centres of Research Excellence	2,500,000	University of Melbourne	Centre of Research Excellence in Healthy Housing	Australia is one of a few high income countries that does not have a healthy housing policy. As a consequence we fail to leverage the enormous potential for housing and housing focused interventions to have a positive impact on population health. The Centre for Research Excellence will provide Australian specific evidence, work with key stakeholders to make change and build capacity in the overlapping domains of housing and health.
Centres of Research Excellence	2,500,000	Murdoch Childrens Research Institute	Stronger Futures CRE: building resilience and breaking cycles of intergenerational trauma and social inequity	The transmission of complex trauma across generations is a global public health and human rights issue. The Stronger Futures CRE will implement a collaborative, multi-stakeholder program of translational research activity to reduce the impacts of intergenerational trauma and family violence within Aboriginal and Torres Strait Islander, refugee and socially disadvantaged families and communities.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Centres of Research Excellence	2,500,000	University of Queensland	The Centre of Research Excellence on Achieving the Tobacco Endgame (CREATE)	The Centre of Research Excellence on Achieving the Tobacco Endgame (CREATE) will develop a strategy to make Australia smoke-free. Multi-disciplinary research will determine which strategies are the most effective, equitable and acceptable to the public and policymakers. It will identify the barriers and enablers, and make recommendations on the optimal suite of policies to end the cigarette epidemic and reduce the health care burden associated with smoking related diseases.
Partnership Projects	1,273,553	University of Sydney	Delivering precision diagnosis to patients with mitochondrial disease: Using digital technologies to enhance the delivery pathway to provide an accurate genetic diagnosis for patients with mitochondrial disease	Mitochondrial disease (MD) is the most common inherited metabolic condition. MD can be diagnosed by using whole genome sequencing and enables treatment and accurate family planning. This project will create a web-based platform to support the diagnosis and treatment of patients with or suspected to have MD. Using a custom-built web-based platform, telemedicine and automated software it will integrate care by primary care givers and MD experts to deliver a precise genetic diagnosis to MD patients.
Partnership Projects	1,035,071	University of Sydney	Midwives and Obstetricians Helping Mothers to Quit - the MOHMQuit trial	Smoking is the most important preventable cause of negative pregnancy outcomes. Delivery of quitting support by health care professionals is currently poor. This project will trial an innovative program, MOHMQuit, which uses a whole-of-system approach to improve support provided to pregnant smokers and increase quitting among this critical group.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Partnership Projects	963,843	Monash University	GooD4Mum: A randomised controlled implementation trial to reduce conversion from gestational diabetes to type 2 diabetes using follow-up in general practice.	Gestational diabetes (GDM) is increasingly common with short and long term health risks for mothers and babies. This project generated considerable evidence on identification, screening and interventions to improve lifestyle and prevent type 2 diabetes in these high risk women after GDM. They aim to address how best to implement scalable, low cost, effective identification, screening and lifestyle intervention strategies in routine primary care, to improve women's health.
Partnership Projects	1,065,665	University of Queensland	Implementation of Comprehensive High-dose Aphasia Treatment (CHAT)	Aphasia is a communication disability that occurs in up to 30% of stroke survivors. Most people with aphasia do not currently receive the amount and type of treatment they need. The aim of this research is to evaluate the implementation of comprehensive high dose aphasia treatment in clinical settings. Implementation will occur through partnerships with service providers, consumer organisations and clinical networks. This work will provide a new way to manage aphasia and improve lives.
Partnership Projects	743,438	Monash University	Improving Rehabilitation Outcomes through Self-Management: My Therapy	During rehabilitation, patients don't often receive enough therapy and actually spend most of the day sitting and lying down. My Therapy was designed to increase independent practice of therapy exercises during rehabilitation, in addition to usual care, without additional staff. Through My Therapy, patients achieved 100 extra minutes of weekly therapy participation and better function.



Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Partnership Projects	1,230,191	Flinders University	Optimising evidence translation in the high-risk time-critical environment of the emergency management for suspected cardiac chest pain (RAPIDx)	Few clinical processes are purposefully redesigned to optimally incorporate new diagnostic test into routine practice. Using artificial intelligence to enhance the interpretation of newly identified troponin elevation with high sensitivity troponin assays, this will implement a myocardial injury registry in practice. It will also form a platform to explore the clinical impact of artificial intelligence, through a cluster randomised trial evaluating decision-support on 12-month outcomes.
Partnership Projects	735,795	University of New South Wales	Unifying and quality assuring disparate health silos with a common data model	Australia has silos of disconnected data holdings across community, primary and secondary care settings, with disparate terminologies, data models and data quality assurance mechanisms. Mapping MedicineInsight, a national general practice data repository, to a common data model can contribute to unifying Australia's digital data assets. There are cost-efficiencies and benefits from sharing interoperable data and tools for large-scale multicentre and multisystem data analytics.
Partnership Projects	703,705	University of Tasmania	InforMS – an electronic patient-driven health care model with digital biomarker monitoring that improves the clinical care of people with MS	Clinicians are lacking timely and sensitive data to detect treatment failure in MS. This project will develop an electronic patient-centred health care system, 'InforMS', that becomes a "one-stop-shop" management system which empowers and activates people with MS to collect invaluable time-sensitive monitoring data. It will test InforMS on around 3,000 people with MS to measure uptake and ensure it supports health improvements and changes to clinical practice.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Partnership Projects	475,920	University of Newcastle	The impact of individualised care plans for elderly patients discharged home from hospital after neck of femur fracture: A randomised controlled trial	Improved delivery of care to older Australians who sustain a broken hip is a major health need. Transitions from hospital remain a high-risk process. Written discharge plans are recommended nationally, but are not routinely implemented. This randomised controlled trial will test whether a discharge intervention can improve hip fracture patient's capacity to live well in the community. The intervention harnesses existing services and infrastructure, and can be rapidly scaled up if effective.
Partnership Projects	532,120	Queensland University of Technology	The Limit of Detection in the Emergency Department Trial: A stepped-wedge cluster randomised trial for rapid assessment of patients with suspected acute coronary syndrome in the Emergency Department	Over 450,000 patients present to Australian emergency departments with chest pain every year. The current approach to rule out heart attack for these patients is lengthy, costly and creates overcrowding in the emergency department. This study will evaluate a rapid assessment pathway for investigating chest pain in the emergency department. The pathway will reduce health care utilisation while retaining patient safety.
Partnership Projects	842,951	La Trobe University	Making football safe for women: implementing an injury prevention program	The risk of serious knee injury in female football is high, and injuries are continuing to increase. In partnership with the AFL, Medibank, Aust. Physiotherapy Association, Australasian College of Sport and Exercise Physicians and Sports Medicine Australia, the team will aim to increase the use of a knee injury prevention program (Prep-to-Play) in ~4200 female community football players in the 2021 and 2022 seasons.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Partnership Projects	1,158,722	University of New South Wales	National prisons hepatitis C education: improving health literacy to enhance treatment uptake	This Partnership Project will evaluate the National Prisons Hepatitis Education Program, which aims to improve the knowledge, attitudes, and behaviours of health care providers, correctional officers, and prisoners regarding hepatitis C (HCV) and its treatment. This initiative is a key element of the national approach to achieve the World Health Organization goal of elimination of HCV as an ongoing public health concern by 2030.
Partnership Projects	909,752	University of New South Wales	Australasian Partnership for Improving Outcomes in Severe Depression	This 5-year project examines how proven treatments are used in real-world clinical practice, and how this can be improved. The project focuses on important physical interventions for depression: Electroconvulsive therapy (ECT), Ketamine, repetitive Transcranial Magnetic Stimulation (rTMS), transcranial Direct Current Stimulation (tDCS). The use of ECT to treat schizophrenia will also be examined. The research team will partner with clinical service providers and a government health department.
Partnership Projects	1,497,570	University of Melbourne	Piloting, Implementing and Evaluating First Few Hundred Protocols in the Australian Context	The World Health Organization identifies pandemic influenza as one of ten top threats to human health in 2019. Australia has invested extensively in preparedness planning, but gaps remain. We do not presently have finalised study protocols to collect evidence from early identified cases and household contacts in a pandemic, information needed to inform targeted public health responses. The team will work across governments and settings to test and advise on these study protocols for all Australians.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Partnership Projects	1,496,095	University of Melbourne	Stopping Buruli ulcer in Victoria	Buruli ulcer (BU) is a destructive skin and soft tissue infection that can cause permanent deformity. Australian native possums carry the bacteria that causes BU and mosquitoes spread it to people from areas contaminated by possum faeces. A targeted intervention based on screening possum faeces followed by control of mosquitoes in areas where possums and mosquitoes are shown to carry the bacteria will be trialed here, giving public health officials a means to stop this disease.
Partnership Projects	1,004,341	University of New South Wales	Community Health Workers Extending Care in the Community	Community Health Workers (CHW) have an important role in bridging the transition between hospital and community. With consumer co-researchers and our partners, the research team will co-design a model of CHW follow up and support care following hospitalisation. It will then conduct a trial to evaluate implementation and impact on hospital readmission, health outcomes and value for money, translate them into policy, and practice.
Partnership Projects	1,068,044	University of New South Wales	Implementing population-specific psychosocial interventions to optimise treatment, care and support among men who have sex with men who use methamphetamine	Methamphetamine dependence is a key public health priority and men who have sex with men are identified as a priority population. This partnership will develop interventions which will be linked to the cohort data to monitor the impact on health outcomes and access to care and support over time. The findings will support the process of creating and evaluating innovations with the ultimate goal of improving access to care and support and reducing dependence and its harmful outcomes.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Partnership Projects	956,115	University of New South Wales	Development and evaluation of regional health care alliances to improve health system performance in New South Wales – Patient Centred Co-commissioning Groups	This project involves the NSW Government, Primary Health Networks, Local Hospital Districts and the Consumers Health Forum partnering with leading health services researchers to design and evaluate a new service delivery model that could transform the health system. If successful it will overcome waste and inefficiencies, enhance patient and provider experience and improve health outcomes.
Partnership Projects	522,284	University of Queensland	Exposure to Trihalomethanes in pregnancy and birth outcomes in Queensland: integrated data analysis and case studies for better policy and health outcomes	The researchers will assist the project partners in implementing evidence-based changes for disinfection by-products called Trihalomethanes (THMs) risk management, incident resolution, and exposure minimisation in pregnant women in Queensland, particularly those residing in high-risk areas. It is anticipated that the findings contribute to the advocacy for revising the Australian Drinking Water Guidelines for THMs.
Partnership Projects	752,694	Monash University	Advancing women in health care leadership	A national collaboration to generate new knowledge, co-design, implement, evaluate and measure individual and organisational level interventions that will address key barriers to leadership across capacity, perceived capability and credibility and cultural diversity, to successfully advance women in health care leadership. This work is highly prioritised by partners and in a policy context.
Partnership Projects	857,288	University of Melbourne	The who, why, what, where and when of primary youth mental health care: The 5W research program	headspace has been an international pioneer for primary mental health care for young people. A better understanding of how to match the range of services headspace provides to the diverse needs of its clients is needed. The 5W research program, will use a range of big data techniques, machine learning, data linkage, discrete choice experiments and economic modelling to develop an acceptable, equitable and efficient stepped care model for headspace.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Partnership Projects	537,855	University of Melbourne	Developing and implementing an ethical framework for HIV phylogenetic analysis in Australia	Many countries are using genetic analysis to detect clusters of HIV transmission. This is an important part of reducing the number of new HIV infections, and making sure that all people with HIV receive timely medical care. In partnership with HIV community organisations and public health policy makers, this will provide the first evidence-base for the public health utility of real-time HIV genetic analysis in the Australian setting.
Development Grants	687,994	University of Melbourne	Development of AD214 a novel anti-fibrotic treatment for advanced Age related macular degeneration	Age related macular degeneration remains the leading cause of blindness in this and other industrialised countries. Although treatment is available for an advanced form of the disease, many do not respond, or lose significant amounts of vision with long term treatment. This proposal will provide critical data for commercialising a novel therapy called an i-body (AD214) that reduces vision loss by blocking the formation of scarring with reduced need for injections.
Development Grants	808,978	QIMR Berghofer Medical Research Institute	New multivalent antibodies for immunology	Cancer is now the number one killer of Australians and there is an unmet medical need to develop new therapies that are safe and maximise anti-cancer efficacy. Cancer immunotherapy now represents a new fourth pillar in cancer treatment to complement surgery, radiotherapy and chemo-targeted therapies. This application aims to develop new therapeutic approaches to broaden the effectiveness of cancer immunotherapy and potentially allow the treatment of a broader range of cancers and patients.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Development Grants	729,037	Monash University	Development of a New Class of Broad-Stage Antimalarial Agents	In 2017, there were almost 220 million cases of malaria across 90 different countries, associated with 435,000 deaths, and with 65-70% of all malaria deaths tragically being children under the age of five. No significant progress in reducing global malaria cases has been made over the last four years and the need for new and better treatments remains dire. This research and development plan will develop novel and safer drugs for the treatment of drug resistant malaria.
Development Grants	1,107,069	University of Melbourne	Repair of tooth enamel/dentine by biomimetic mineralisation	Dental caries and erosion involve loss of tooth mineral and are major public health problems. The project will involve the proof-of-concept testing of a prototype dental professional product MI Enamel/Dentine Repair™ to repair early stages of mineral loss non-invasively. This could revolutionise dental practice globally for the non-invasive repair of early tooth decay and erosion lesions with a surface seal of tooth-like mineral.
Development Grants	636,329	University of Queensland	Targeting complement C5a receptor 2 as a disease-modifying treatment for motor neuron disease	Motor neuron disease (MND) is a devastating terminal condition that has no effective treatment. The researchers have identified a novel drug which inhibits an immune protein that can potentially treat MND. This project will test the drug in rodent models of MND, and validate its effectiveness in relevant MND immune cells. Ultimately, this project will identify a new potential drug for MND.



Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Development Grants	636,492	Monash University	A bispecific antibody to synergise checkpoint blockers in oncology	Cancer hides from the immune system in its earliest stages by evading immune surveillance and a cell type named myeloid derived suppressor cell (MDSC) has been identified as the main accomplice in this evasion. Currently, there is no drug able to specifically target those cells. This project will develop a new drug that will prevent their recruitment to the tumors. The team believe that when used in synergy with recent immunotherapies, it will dramatically improve survival in cancer patients.
Development Grants	879,010	University of Melbourne	The Neonav ECG Tip Location System: Better & safer care for paediatric intensive care patients	When babies and children need intensive care, thin, flexible tubes (catheters) are placed in their blood vessels to deliver fluids and medications. Despite best efforts, catheters may not reach or move from the correct location inside the patient and the procedures may need to be repeated. The Neonav ECG Tip Location System is an innovative medical device that tracks where the catheter is during and after the procedure; this makes care safer and less stressful for the babies and children.
Development Grants	726,160	Monash University	Next generation hand-held nebulisers for aerosol drug delivery: using microfluidics to tune particle size	Chronic respiratory diseases (Asthma, COPD) affect 14% of Australians with a greater disease burden felt by elderly and young patients. These patients experience more difficulty administering medication through conventional inhalers due to a lack of coordination and dexterity. The grant supports a patented technology which improves the pulmonary delivery of medication through a microfluidic method, within a system designed specifically to improve user experience and patient monitoring.



Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Development Grants	724,957	University of Queensland	Preclinical development of Q2361, a transforming new drug for skin cancer prevention in organ transplant recipients	Patients that receive organ transplants need additional medications in order to prevent organ rejection. Unfortunately, these drugs carry an unwanted side-effect - they permit the development of skin cancer. Currently, other than surgery, little can be done to help these patients. Preliminary data suggest, that a new drug may prevent these skin cancers from forming. This project aims to deliver key insights into the influence of this drug and its role in skin cancer prevention.
Development Grants	674,659	Baker Heart and Diabetes Institute	Anti-inflammatory compound development for the treatment of heart failure with preserved ejection fraction	Heart failure with preserved ejection fraction (HFpEF) is a highly prevalent and rapidly growing heart condition with no proven effective therapies. This project will develop novel drugs to treat HFpEF by focusing on heart scarring and inflammation. Promising drug candidates will be developed during the project, and these will be ready for phase I clinical trial by the end of this grant. The outcome of this study is poised to address the significant unmet medical need.
Development Grants	1,377,149	University of Queensland	OctapeptinX Potentiators to treat XDR Gram-negative infections	There is an urgent need for the development of new antibiotics to treat drug-resistant infections, with the World Health Organization and other agencies warning of a critical threat to human health. Potentiators are drugs that help obsolete antibiotics regain activity against resistant bacteria. This project aims to develop a novel class of potentiators, the octapeptins, to resurrect the activity of old antibiotics so they can be used to treat infections caused by highly-resistant Gram-negative bacteria.

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Development Grants	934,902	University of Melbourne	Stentrode Neuro-stimulator	Epilepsy affects over 65 million people worldwide and approximately 30% of sufferers do not respond to drugs. For these people, electrodes are placed in the brain to monitor activity and stop the initiation or progression of seizures. However, state-of-the-art devices require risky open-brain surgery. This project develops a Stentrode Neuro-Stimulator (SNS) for the treatment of drug-resistant epilepsy without the need for open-brain surgery.
Development Grants	781,353	Burnet Institute	Development of a molecular point-of-care test for hepatitis C to increase uptake of curative antiviral treatment	This project seeks to develop a new point-of-care test to detect hepatitis C virus infections. This will enable the diagnosis and initiation of curative treatment in a single health care visit. It is expected that this will overcome a major barrier to treating high-risk groups with highly effective medications and will lead to higher number of cured patients.
Development Grants	656,985	University of New South Wales	Development of a therapeutic monoclonal antibody	Monoclonal antibodies, such as the cancer therapeutic Pembrolizumab, have revolutionised the treatment of cancer and many inflammatory conditions. With over \$100 billion in sales in 2018, they also underpin a growing biotech industry. The researchers have developed a highly specific, high affinity therapeutic antibody candidate, and demonstrated efficacy in animal models of malignancy. This project will advance and develop this monoclonal, leading to clinical studies in patients.
Development Grants	1,058,537	University of Melbourne	Hear Assure: Saving natural hearing during cochlear implantation	Cochlear implants provide hearing by electrical stimulation of the hearing nerve. People receiving cochlear implants may have natural hearing, which is lost in up to 70% of patients through trauma caused during implantation. This is a major barrier to the adoption of cochlear implants. To overcome this, Hear Assure is a novel hearing-monitoring product that is integrated with the cochlear implant, enabling safe positioning of the implant to minimise loss of natural hearing.

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Development Grants	926,673	University of Queensland	Development of a first-in-class therapeutic for protecting the ischemic heart	Heart disease is the leading cause of death globally. Heart attacks are the primary cause of death associated with heart disease. The researchers have discovered a drug, Hi1a, that blocks the injury response of the heart when a heart attack happens. There are no other drugs currently available or in the discovery pipeline that address this problem. This proposal will use models of injury to the heart as well as safety studies to help develop Hi1a as a new drug for people who suffer from heart attacks.
Development Grants	972,244	Bionics Institute	Delivering hearing therapeutics to the clinic	This project aims to develop a treatment for hearing loss that can be progressed to a clinical trial for patients with significant hearing impairment. The treatment involves the use of drug delivery particles that have shown to be effective in preventing the loss of sensory auditory cells in deafness. The project will further develop and validate this technology in deafness models so that it can be applied to human patients in a first in human trial.
Development Grants	660,133	University of New South Wales	Media formulations to enhance embryo formation in assisted reproduction	The increasing age of parenthood has led to an explosion in the demand for assisted reproductive technologies such as in vitro fertilisation (IVF). This procedure is limited by the ability of fertilised eggs to mature into early embryos in the lab prior to being transferred into women.

Grant Opportunity	Funding amount (\$)	Administering Institution	Application Title	Summary
Targeted Calls for Research	1,083,010	Deakin University	Using 'omics to unravel the pathophysiology and repurpose drugs to treat ME/CFS	The cause(s) of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) are not well known, but may involve altered function by the component of the cell that produces energy (mitochondria). This project will use cutting edge stem cell technology to investigate this in detail and generate vital new knowledge that could identify new targets for the treatment of ME/CFS. It will also use complex technology to screen a library of drugs to identify those that may be useful in the treatment of ME/CFS.
Targeted Calls for Research	1,460,700	Griffith University	Ion channel dysfunction in the pathophysiology of Myalgic Encephalomyelitis/ Chronic Fatigue Syndrome: diagnostic biomarkers, therapeutic targets and treatments	Research suggests that ion channels that transfer calcium within cells are dysfunctional in ME/CFS. This research will investigate ion channels and calcium transfer using immune cells to help develop biomarkers for the illness and discover better treatments for these patients.
Targeted Calls for Research	784,064	University of Melbourne	Exploring the role of nitrogen metabolism, energy metabolism and mitochondrial function in the pathophysiological mechanisms of paediatric ME/CFS.	Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) is a disease diagnosed by symptoms. This extensive research has led to a hypothesis that ME/CFS results from toxic by-products of energy production in their cells. This problem can be caused by many unique ways, which could explain the diversity of the ME/CFS patient population. This research will test this hypothesis with a novel personalised experimental design to simultaneously produce a plethora of new knowledge for the field of ME/CFS.