

## Appendix A: Medical Research Future Fund (MRFF) Genomics Health Futures Mission projects funded as of November 2023

As of November 2023, the MRFF's [Genomics Health Futures Mission](#) has had seven grant opportunities that have awarded funding for research projects. The grant opportunities are:

1. [2018 Genomics Health Futures Mission – Mackenzie’s Mission \(MCRI\)\\*](#)
2. [2019 Genomics Health Futures Mission – ProCan \(University of Sydney\)\\*](#)
3. [2019 Genomics Health Futures Mission Projects Grant Opportunity](#)
4. [2019 Genomics Health Futures Mission – Flagships Pathogen Genomics Grant Opportunity](#)
5. [2020 Genomics Health Futures Mission Grant Opportunity](#)
6. [2021 Genomics Health Futures Mission Grant Opportunity](#)
7. [2022 Genomics Health Futures Mission Grant Opportunity](#)

The below table outlines the projects funded from these grant opportunities, and the ‘Priority area/s for investment’ as outlined in the [Implementation Plan](#) that each project targets. Further information on MRFF funded grants is available [here](#).

\*Guidelines can be provided for these grant opportunities at request by contacting [MRFF.Missions@health.gov.au](mailto:MRFF.Missions@health.gov.au).

Administering Institution	Project Title	Amount (ex GST)	Funded from Grant Opportunity
<b>Implementation Plan Priority Area 1.1 - Rare disease: Improving diagnostic rates for rare genetic diseases that present before birth, in childhood or in adults, and delivering the diagnosis as quickly as possible</b>			
University of Melbourne	Precision Medicine for a Life-Threatening Infantile Epilepsy	\$4,079,947.00	2019 Projects (Stream 1.1)
Murdoch Children's Research Institute	National rapid genomic diagnosis program for critically ill children	\$4,848,331.00	2019 Projects (Stream 1.2)
University of New South Wales	PreGen: Filling the Gap – antenatal genomics and newborn care	\$4,828,094.00	2019 Projects (Stream 1.2)
James Cook University	The KidGen National Kidney Genomics Program – improving genomic outcomes for Australian families with genetic kidney disease	\$2,999,537.40	2020 Genomics Health Futures (Stream 1)
Murdoch Children's Research Institute	A national large scale automated reanalysis program to increase rare disease diagnosis	\$2,999,982.60	2020 Genomics Health Futures (Stream 1)
Murdoch Children's Research Institute	Mitochondrial Diagnostic Network for Genomics and Omics	\$2,999,999.66	2020 Genomics Health Futures (Stream 1)
Murdoch Children's Research Institute	New technologies for improved diagnosis of ataxia and the repeat expansion disorders	\$653,299.00	2020 Genomics Health Futures (Stream 1)
Murdoch Children's Research Institute	The Australian Undiagnosed Diseases Network (UDN-Aus): An internationally networked national approach for transforming diagnosis for individuals living with rare diseases	\$2,974,134.60	2020 Genomics Health Futures (Stream 1)
University of Melbourne	Diagnosis, discovery and novel phenotype characterisation using multimodal genomics in patients with inherited bone marrow failure and related disorders	\$2,997,450.25	2020 Genomics Health Futures (Stream 1)

<b>Administering Institution</b>	<b>Project Title</b>	<b>Amount (ex GST)</b>	<b>Funded from Grant Opportunity</b>
University of Melbourne	Precision Diagnosis for the Remaining 50% of Unsolved Developmental and Epileptic Encephalopathies	\$2,992,144.21	2020 Genomics Health Futures (Stream 1)
University of Western Australia	Closing the gap in diagnosis of neurological disorders including ataxias and neuropathies – a trans-Australia collaboration	\$2,996,253.50	2020 Genomics Health Futures (Stream 1)
Murdoch Children's Research Institute	Gene-STEPS: Rapid diagnosis and tailored management for infantile epilepsies	\$2,959,388.58	2022 Genomics Health Futures (Stream 1)
Murdoch Children's Research Institute	RE Pathways: New technologies for genetic diagnosis of ataxia and the repeat expansion disorders	\$2,901,766.94	2022 Genomics Health Futures (Stream 1)
University of New South Wales	An integrated multi-omics approach to expedite diagnosis and management of inborn errors of immunity	\$2,959,795.93	2022 Genomics Health Futures (Stream 1)
University of New South Wales	A national long-read genome sequencing program to improve rare disease diagnosis	\$2,938,941.93	2022 Genomics Health Futures (Stream 1)
University of New South Wales	Monogenic Parkinson's Disease Australia Initiative (MonoPDAus Initiative) - towards a precision medicine approach	\$2,952,427.28	2022 Genomics Health Futures (Stream 1)
University of New South Wales	Establishment of a comprehensive rhabdomyolysis genetic diagnostic pipeline - a large cross-disciplinary Australian collaboration	\$2,910,959.14	2022 Genomics Health Futures (Stream 1)
University of Tasmania	Genomic approaches for better outcomes in pulmonary fibrosis: addressing the knowledge gap	\$2,946,131.68	2022 Genomics Health Futures (Stream 1)
The University of Adelaide	Genomic testing pathways for precision health in cerebral palsy	\$2,956,614.23	2022 Genomics Health Futures (Stream 1)

<b>Administering Institution</b>	<b>Project Title</b>	<b>Amount (ex GST)</b>	<b>Funded from Grant Opportunity</b>
Australian National University	Improving genetic diagnosis of autoimmune and autoinflammatory disease through an integrated multi-omics approach	\$2,950,844.17	2022 Genomics Health Futures (Stream 1)
The University of Newcastle	Facematch: Harnessing frontier technologies in facial recognition to transform genetic diagnosis of children with moderate to severe intellectual disability	\$2,295,611.34	2022 Genomics Health Futures (Stream 1)
<b>Implementation Plan Priority Area 1.2 - Cancer: Improving early detection and targeted treatment for the most common cancers to reduce the burden of disease</b>			
University of Sydney	ProCan <sup>®</sup> : The human cancer proteome project - Part 1	\$20,400,000.00	2019 ProCan
The University of Queensland	Whole Genome Sequencing in high-risk breast cancer patients	\$2,801,185.00	2019 Projects (Stream 1.1)
University of Melbourne	SUPER-NEXT: Complete genome profiling for cancer of unknown primary	\$4,993,323.00	2019 Projects (Stream 1.1)
University of Melbourne	Evaluating clinically relevant biomarkers to improve early detection and treatment of head and neck cancer	\$2,231,954.50	2020 Genomics Health Futures Mission (Stream 2 - Topic A)
Monash University	Population genomic screening of young adults to prevent cancer in Australia	\$2,968,057.20	2020 Genomics Health Futures Mission (Stream 2 - Topic B)
University of Melbourne	Genetic mosaicism as a stable and robust blood DNA biomarker for precision risk assessment for cancer	\$2,122,301.10	2020 Genomics Health Futures Mission (Stream 2 - Topic B)
University of Sydney	Genomic risk prediction and risk-tailored screening and early detection for common cancers	\$2,999,860.35	2020 Genomics Health Futures Mission (Stream 2 - Topic B)

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Flinders University	A liquid biopsy DNA methylation blood test for personalised treatment of patients with gastrointestinal cancers	\$1,980,810.10	2020 Genomics Health Futures Mission (Stream 2 - Topic C)
Macquarie University	Integrated Multimodal Precision Liquid biopsy to Enhance MELanoma and NSCLC Treatment (IMPLEMENT)	\$2,031,178.80	2020 Genomics Health Futures Mission (Stream 2 - Topic C)
The University of Queensland	Improving genomic testing rates for inoperable lung cancer patients	\$2,492,446.30	2020 Genomics Health Futures Mission (Stream 2 - Topic C)
University of Melbourne	Novel predictive disease modelling using liquid biopsies to improve outcomes in melanoma	\$2,049,125.70	2020 Genomics Health Futures Mission (Stream 2 - Topic C)
<b>Implementation Plan Priority Area 1.3 - Functional genomics: Promoting diagnostic effectiveness and efficiency through better understanding of the impact of genetic variants</b>			
University of South Australia	Genomic autopsy of perinatal death	\$3,401,790.00	2019 Projects (Stream 1)
Murdoch Children's Research Institute	The Australian Functional Genomics Network	\$5,999,547.00	2020 Genomics Health Futures Mission (Stream 3)
The University of Queensland	TRIAGE: A disease agnostic computational and modelling platform to accelerate variant classification	\$2,997,498.50	2021 Genomics Health Futures Mission (Stream 1)
The Walter and Eliza Hall Institute of Medical Research	Advancing genetic diagnosis and health by leveraging high-throughput functional assay data into existing disease-agnostic variant platforms	\$2,573,362.20	2021 Genomics Health Futures Mission (Stream 1)
University of New South Wales	High throughput functional genomics assays for ion channelopathies	\$2,877,650.40	2021 Genomics Health Futures Mission (Stream 1)

<b>Administering Institution</b>	<b>Project Title</b>	<b>Amount (ex GST)</b>	<b>Funded from Grant Opportunity</b>
University of Melbourne	RDMassSpec: Mass-Spectrometry based Functional Genomics Platform for solving Rare Genetic Disorders	\$2,998,604.40	2021 Genomics Health Futures Mission (Stream 1)
University of Sydney	RNA-4RD: Disease-agnostic, nationally-accessible pipelines of clinical RNA Diagnostics	\$2,991,954.80	2021 Genomics Health Futures Mission (Stream 1)
The University of Adelaide	PERSYST: Pathogenic Evaluation of Recalcitrant Variants by Systematic Transactivation	\$2,996,428.00	2021 Genomics Health Futures Mission (Stream 1)
<b>Implementation Plan Priority Area 1.4 - Infectious disease: Developing novel methods to reduce the impact of infectious diseases on individual patients and on populations</b>			
Monash University	Genomics, Digital Health and Machine Learning: the SuperbugAi Flagship	\$3,403,772.00	2019 Pathogen Genomics
University of New South Wales	H2Seq: Viral genomics for public health interventions in HIV and HCV	\$6,629,162.00	2019 Pathogen Genomics
University of Melbourne	META-GP: Delivering a Clinical Metagenomics Platform for Australia	\$6,984,360.00	2019 Pathogen Genomics
University of Melbourne	Precision Public Health in Australia through Integrated Pathogen Genomics	\$9,999,499.00	2019 Pathogen Genomics
The University of Queensland	Host gene expression signatures to diagnose sepsis in children	\$2,406,970.00	2019 Projects (Stream 1.2)

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<b>Implementation Plan Priority Area 1.5 - Genomic screening: Improving genomic screening to enable informed decision making for health</b>			
Murdoch Children's Research Institute	Mackenzie's Mission: The Australian Reproductive Carrier Screening Project	\$19,982,540.00	2018 Mackenzie's Mission
Murdoch Children's Research Institute	Assessing benefits of extended genomic newborn screening trialled on 100,000 infants from Generation Victoria	\$2,999,919.80	2021 Genomics Health Futures Mission (Stream 2)
Murdoch Children's Research Institute	Genomic Newborn Screening for personalised lifelong healthcare in Australian babies	\$2,998,078.35	2021 Genomics Health Futures Mission (Stream 2)
University of Sydney	gEnomics4newborns: integrating Ethics and Equity with Effectiveness and Economics for genomic newborn screening	\$2,117,960.40	2021 Genomics Health Futures Mission (Stream 2)
University of Sydney	Newborn GEN SEQ TRAIL: Newborn GENomicSEQuencing in screening: TherapyReadyAndInformation for Life	\$2,954,189.32	2021 Genomics Health Futures Mission (Stream 2)
The University of Adelaide	Newborn screening model using Integrated multi-omics in South Australia (NewbornsInSA)	\$2,941,351.00	2021 Genomics Health Futures Mission (Stream 2)
<b>Implementation Plan Priority Area 2.1 - Pharmacogenomics: Promoting precision medicine to improve medication efficacy and reduce harm</b>			
Murdoch Children's Research Institute	Minimising Adverse drug Reactions and Verifying Economic Legitimacy - Pharmacogenomics Implementation in Children (MARVEL-PIC)	\$2,956,475.04	2022 Genomics Health Futures Mission (Stream 2 Topic A)
Australian National University	Advancing health equity for Indigenous Australians through pharmacogenomics: building an end-to-end discovery pipeline	\$2,959,805.94	2022 Genomics Health Futures Mission (Stream 2 Topic A)

<b>Administering Institution</b>	<b>Project Title</b>	<b>Amount (ex GST)</b>	<b>Funded from Grant Opportunity</b>
The Council of the Queensland Institute of Medical Research	Enabling pharmacogenomics in the Australian context: improving the accuracy of clinical utility and cost effectiveness analyses	\$2,595,260.79	2022 Genomics Health Futures Mission (Stream 2 Topic A)
The University of Newcastle	DPYD and UGT1A1 genotyping for fluoropyrimidine and irinotecan dose personalisation to reduce severe toxicity	\$2,705,260.74	2022 Genomics Health Futures Mission (Stream 2 Topic A)
Monash University	Assessing the clinical impact of pharmacogenomics in IVF using a novel clinical decision support system integrating whole genome sequencing and artificial intelligence	\$2,920,166.09	2022 Genomics Health Futures Mission (Stream 2 Topic B)
University of New South Wales	Genetically guided therapy choice for gastrointestinal autoimmune disorders - The Leveraging pharmacogenomics to Optimise Choice of IBD therapy (LOCI) validation trial	\$2,762,256.69	2022 Genomics Health Futures Mission (Stream 2 Topic B)
<b>Implementation Plan Priority Area 2.2 - Common and complex disease: Deploying innovative methods to understand the genetic basis of complex diseases</b>			
Flinders University	Implementing a novel model of management for glaucoma using polygenic risk profiling	\$2,934,013.14	2022 Genomics Health Futures Mission (Stream 3 Topic C)
University of Melbourne	Trial Integration of Polygenic Scores for Common Cancers into Standard Clinical Care	\$2,870,236.94	2022 Genomics Health Futures Mission (Stream 3 Topic C)
University of Melbourne	The CASSOWARY Trial: an RCT of the clinical utility and cost-effectiveness of a multi-cancer polygenic risk score in general practice	\$2,414,562.74	2022 Genomics Health Futures Mission (Stream 3 Topic C)
University of Sydney	Donor and recipient polygenic risk scores predictive of late graft loss	\$2,474,439.74	2022 Genomics Health Futures Mission (Stream 3 Topic C)
The Council of the Queensland Institute of Medical Research	Using risk profiles to overcome challenges in incorporating polygenic risk scores into clinical mental health practice	\$1,126,562.69	2022 Genomics Health Futures Mission (Stream 3 Topic C)



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The University of Newcastle	Using polygenic scores to guide the treatment and prophylaxis of hypertension	\$2,619,700.94	2022 Genomics Health Futures Mission (Stream 3 Topic C)
<b>Implementation Plan Priority Area 2.4 - Co-developing clinical capabilities for genomics applications that can be embedded in the primary health care sector</b>			
Macquarie University	Embedding Genomics in Primary Care: Using Implementation Science to Design a Robust National Approach	\$1,974,062.84	2022 Genomics Health Futures Mission (Stream 4 Topic A)
University of Sydney	PRECISE (Practitioner Readiness, Education and Capabilities, with Implementation Science Evaluation) Genomics Research Project	\$1,941,508.62	2022 Genomics Health Futures Mission (Stream 4 Topic B)
<b>Implementation Plan Priority Area 3.1 - ELSI: Developing a better understanding of the ethical, legal and social implications of genomics, and facilitating public trust and public engagement</b>			
Monash University	Moratorium on Genetic Testing and Life Insurance: Monitoring the impact	\$500,000.00	2019 Projects (Stream 2)
Monash University	Preventing mitochondrial disease using genomics	\$499,417.00	2019 Projects (Stream 2)
Macquarie University	Cascade testing in intellectual disability: social and economic impact	\$486,897.00	2019 Projects (Stream 2)
Murdoch Children's Research Institute	A Centre for Ethics of Paediatric Genomics to Improve Paediatric Care	\$463,471.00	2019 Projects (Stream 2)
Swinburne University of Technology	Towards a trusted genomic repository: Tackling commercialisation fears	\$484,000.00	2019 Projects (Stream 2)

<b>Administering Institution</b>	<b>Project Title</b>	<b>Amount (ex GST)</b>	<b>Funded from Grant Opportunity</b>
The University of Queensland	We need to talk: Genomics and disability	\$497,213.00	2019 Projects (Stream 2)
University of Tasmania	Genome Editing: Formulating an Australian Community Response	\$460,631.00	2019 Projects (Stream 2)
University of Tasmania	Returning Raw Genomic Data: Patient Autonomy or Legal Minefield?	\$388,026.00	2019 Projects (Stream 2)
<b>Implementation Plan Priority Area 3.2 - Governance and technology: Developing innovative methods for the ethical and secure governance of genomics data for clinical and research purposes</b>			
University of Sydney	Ethical governance for clinical and genomic data	\$4,999,986.85	2021 Genomics Health Futures Mission (Stream 3)
<b>Implementation Plan Priority Area 3.3 - Aboriginal and/or Torres Strait Islander health: Ensuring that Aboriginal and/or Torres Strait Islander people contribute to, and control the application of genomics research for, the health benefits to their communities</b>			
Queensland University of Technology	Genomic architecture of chronic disease in Australia's First Peoples	\$1,368,256.00	2019 Projects (Stream 1.1)
University of Melbourne	Achieving Equity in Genomic Health for Indigenous Australians	\$499,990.00	2019 Projects (Stream 2)
Australian National University	Pathways to benefit for Indigenous Australians in Genomic Medicine	\$4,986,948.70	2021 Genomics Health Futures Mission (Stream 4)
Central Queensland University	Integrated Genetic HealthCare – Improving Access to Quality Genetic Services for Aboriginal and Torres Strait Islander Patients	\$1,973,205.84	2022 Genomics Health Futures Mission (Stream 5)

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<b>Implementation Plan Priority Area 3.4 - Australian Genome Reference Database: Enriching population cohorts to bring the benefits of genomics to all members of our multicultural nation</b>			
University of New South Wales	The Australian Genetic Diversity Database: towards a more equitable future for genomic medicine in Australia	\$9,996,894.20	2021 Genomics Health Futures Mission (Stream 5)
The University of Queensland	Preparing Australia for use of genomics in prevention of heart-disease: Focus on South Asian Australians	\$928,898.92	2021 Genomics Health Futures Mission (Stream 6)
University of New South Wales	Developing a long-read nanopore sequencing platform for Indigenous genomics	\$986,060.00	2021 Genomics Health Futures Mission (Stream 6)
University of Melbourne	Perioperative Pharmacogenomic Testing (PPGx): A Feasibility and Randomised Controlled Pilot Study	\$355,255.20	2021 Genomics Health Futures Mission (Stream 6)
Australian National University	Establishing epigenetic biomarkers in Indigenous Australians for precision health	\$991,506.00	2021 Genomics Health Futures Mission (Stream 6)
Australian National University	High throughput validation of genomic variants in Indigenous Australians and their contribution to kidney and immune disease	\$975,502.80	2021 Genomics Health Futures Mission (Stream 6)
The Council of the Queensland Institute of Medical Research	Ensuring genetics based prediction of glaucoma can benefit all Australians	\$997,796.80	2021 Genomics Health Futures Mission (Stream 6)