Appendix A: MRFF Stem Cell Therapies Mission projects funded as of March 2023

As of March 2023, the Medical Research Future Fund's Stem Cell Therapies Mission has had 5 grant opportunities that have awarded funding for 47 research projects. The grant opportunities are:

1. 2020 Stem Cell Therapies Research Grant Opportunity (1)
2. MRFF Coronavirus Research Response 2020 Rapid Screening of Approved Drugs in Stem Cell Models for COVID-19 Treatment Grant Opportunity*
3. 2020 Stem Cell Therapies Mission Research Grant Opportunity (2)
4. 2021 Stem Cell Therapies Mission Research Grant Opportunity
5. 2022 Stem Cell Therapies Mission Research 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.

Institution	Project Title	Amount (ex GST)	Funded from Grant Opportunity
Implementation Plan Priority Area 1.1			
Monash University	Developing novel cellular therapies and tissue engineering approaches for the treatment of muscle injury and wasting disorders using tissue resident muscle stem cells	$ 824,480.00	1 (Stream 1)
Monash University	Engineering a solution to non-alcoholic steatohepatitis through tuning substrate stiffness	$ 472,680.00	1 (Stream 1)

*Guidelines may be requested by emailing MRFF@health.gov.au.

Institution	Project Title	Amount (ex GST)	Funded from Grant Opportunity
Monash University	Human Amniotic Epithelial Stem Cells as Novel Treatment for Autoimmune Vasculitis	$ 588,396.00	1 (Stream 1)
University of Melbourne	Next generation stem cell therapy for Parkinson's disease.	$ 952,873.50	1 (Stream 1)
Curtin University	Optimizing a preclinical model for bioprinting skin aimed at repairing skin loss in patients	$ 737,689.50	1 (Stream 1)
Murdoch Children's Research Institute	Evaluating safety and efficacy of bioengineered heart tissue for congenital heart repair	$ 998,838.15	3 (Stream 1)
University of Melbourne	Stem cell therapies for digestive disease	$ 583,614.00	3 (Stream 1)
The Walter and Eliza Hall Institute of Medical Research	A novel stem cell-derived manufacturing platform for next-generation dendritic cell vaccines	$ 909,695.60	5 (Stream 1)
St Vincent's Institute of Medical Research	Bio-engineering vascularized skin flaps for complex wound reconstruction	$ 710,793.20	5 (Stream 1)
Centre for Eye Research Australia Limited	Development of a photoreceptor regenerative therapy to treat blindness	$ 587,569.30	5 (Stream 1)
Monash University	Intracerebral delivery of Neuropeptide Y through hiPSC-derived progenitors (NPY-hiPSC- NPs) as a disease-modifying treatment for drug-resistant epilepsy	$ 671,512.00	5 (Stream 1)
St Vincent's Institute of Medical Research	PAGETURNA: Pioneering Application of Gene Editing in Transplant Using RNA	$ 979,980.00	5 (Stream 1)

Institution	Project Title	Amount (ex GST)	Funded from Grant Opportunity
University of Sydney	Purification and cryopreservation of an allogeneic stem cell-derived photoreceptor cell product	$ 515,340.00	5 (Stream 1)
University of Sydney	Transforming corneal stem cell-based therapies with innovative bioengineered technologies	$ 567,683.00	5 (Stream 1)
Implementation Plan Priority Area 1.2			
University of Melbourne	Cartilage based stem cell therapies for joint deformity and facial disfigurement. A framework for point-of-care manufacturing and delivery (ARISTOCRAT)	$ 6,999,671.10	4 (Stream 1)
University of Sydney	Development of photoreceptor cell therapy to treat blindness.	$ 2,566,652.72	4 (Stream 1)
Cartherics Pty Ltd	Gene modified pluripotent stem cells to generate and empower innate immune cells against poor-prognosis cancers	$ 5,376,696.00	4 (Stream 1)
University of Melbourne	Necessary steps to advance a pluripotent stem cell-derived tissue repair therapy to the clinic for stroke	$ 2,065,971.00	4 (Stream 1)
Implementation Plan Priority Area 1.3			
University of Sydney	Induced pluripotent stem cell derived cardiomyocytes: a new therapy for “no-option” end stage heart failure	$ 4,978,360.66	3 (Stream 2)
Monash University	Locally administered extracellular vesicles for perianal fistulising Crohn's disease	$ 935,629.60	3 (Stream 2)

Institution	Project Title	Amount (ex GST)	Funded from Grant Opportunity
Implementation Plan Priority Area 2.1			
The University of Adelaide	A Precision Medicine Based Approach to Treat Craniosynostosis in Children	$ 441,370.75	3 (Stream 3)
University of South Australia	Assessment of new treatment options for the childhood cancer Neuroblastoma	$ 982,101.20	3 (Stream 3)
South Australian Health and Medical Research Institute Limited	Engineered human stem cells for mutation-specific eradication of myelofibrosis	$ 853,274.50	3 (Stream 3)
Murdoch Children's Research Institute	Insights into CDKL5 neuronal regulation: pathways to improving neurological outcomes for CDKL5 Deficiency Disorder	$ 854,205.00	3 (Stream 3)
University of Melbourne	iPSC clinical trials - population wide screening of patient iPSC's to reassess high value drug targets for motor neuron disease	$ 1,000,000.00	3 (Stream 3)
Murdoch Children's Research Institute	New therapies preventing heart damage during chemotherapy	$ 879,205.45	3 (Stream 3)
University of Wollongong	Novel SMART AAV vectors for gene therapy for Friedreich's Ataxia	$ 982,861.60	3 (Stream 3)
University of Sydney	Stem Cell Derived-Retinal Organoids to Test Novel Genetic Therapies	$ 498,419.00	3 (Stream 3)
Murdoch Children's Research Institute	Stem cell models of glomerular kidney disease for understanding disease and developing treatments	$ 934,253.30	3 (Stream 3)

Institution	Project Title	Amount (ex GST)	Funded from Grant Opportunity
University of Queensland	Transforming the paradigm of epilepsy care with precision medicine	$ 999,807.95	3 (Stream 3)
The University of Adelaide	Bioengineering a Superior Humanized Haematopoietic Niche Derived from Mesenchymal Stem Cells for Pre-Clinical Avatar Cancer Trials	$ 854,593.92	5 (Stream 2)
University of New South Wales	Bioengineered tissue models to identify new antiarrhythmics for atrial fibrillation	$ 979,564.92	5 (Stream 2)
The University of Queensland	Moon's Mission: creating a replicable therapeutic framework for hereditary spastic paraplegias	$ 940,424.52	5 (Stream 2)
Murdoch Children's Research Institute	Novel human stem cell-based models of genetic cardiomyopathy as a platform for disease modelling and therapeutic development	$ 732,251.00	5 (Stream 2)
Flinders University	Pre-clinical iPSC-neuron screen of repurposed drugs for children with a form of dementia	$ 738,228.02	5 (Stream 2)
St Vincent's Institute of Medical Research	Repurposing Clinical Grade Medications for Treatment of Friedreich Ataxia Heart Disease	$ 812,364.52	5 (Stream 2)
Implementation Plan Priority Area 2.2			
Monash University	Discovering new drugs for epilepsy using personalised medicine	$ 556,460.60	1 (Stream 2)
University of Melbourne	Identifying novel therapeutic targets in leukaemia stem cells	$ 894,180.00	1 (Stream 2)
University of Melbourne	Translating patient stem cells into personalised screens for age-related macular degeneration	$ 881,906.60	1 (Stream 2)

Institution	Project Title	Amount (ex GST)	Funded from Grant Opportunity
QIMR Berghofer	Preventing Cardiac Injury in Patients with COVID-19	$ 389,998.50	2
University of Melbourne	Stem cell-derived human tissue models for the identification of drugs to treat COVID-19	$ 610,000.00	2
Commonwealth Scientific and Industrial Research Organisation	The sySTEMs initiative: systems biology-augmented, stem cell-derived, multi-tissue panel for rapid screening of approved drugs as potential COVID-19 treatments	$ 998,355.93	3 (Stream 5)
Griffith University	Drug discovery for schizophrenia using patient-derived stem cells	$ 1,425,156.50	4 (Stream 2)
University of Western Australia	Eyes and Ears: a human retinal and inner ear organoid platform for pre-clinical screening of novel therapeutics for Usher Syndrome	$ 2,215,017.62	4 (Stream 2)
Monash University	Pre-clinical evaluation of selective adenosine A1 receptor positive allosteric modulators for the treatment of drug-resistant epilepsy	$ 3,849,003.60	4 (Stream 2)
Implementation Plan Priority Area 3.1			
The University of Adelaide	Based Model for Building Trust in Australian Stem Cell Research and Therapies	$ 995,406.75	3 (Stream 4)
University of Sydney	Improving decisions about access to stem cell interventions	$ 799,543.40	3 (Stream 4)