# 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](https://www.health.gov.au/initiatives-and-programs/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](https://www.grants.gov.au/Go/Show?GoUuid=24B171FB-EC15-8A86-F082-0A7DF21A1AE8) (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](https://www.grants.gov.au/Go/Show?GoUuid=9f953bce-ce45-4f49-9b86-895210ef2f8f) (2)
4. [2021 Stem Cell Therapies Mission Research Grant Opportunity](https://www.grants.gov.au/Go/Show?GoUuid=342d489d-c6dc-466a-b50f-4b8e1e1016ca)
5. [2022 Stem Cell Therapies Mission Research Grant Opportunity](https://www.grants.gov.au/Go/Show?GoUuid=d6b2f9c7-6cdc-43dd-aa37-56e3a41de5a8)

The below table outlines the projects funded from these grant opportunities, and the ‘Priority area/s for investment’ as outlined in the [Implementation Plan](https://health.govcms.gov.au/resources/publications/mrff-stem-cell-therapies-mission-implementation-plan) that each project targets. Further information on MRFF funded grants is available [here](https://www.health.gov.au/resources/publications/medical-research-future-fund-mrff-grant-recipients).

| 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) | |
| 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) | |
| 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) | | |
| 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) | | |
| 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) | |
| 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) | |