

## **~\$1m MRFF Grant Awarded to Fund Investigation of Cynata's MSCs as a Treatment for Heart Disease**

### **Key Highlights:**

- **Medical Research Future Fund (MRFF) has awarded St Vincent's Institute of Medical Research, Melbourne (SVIMR) a ~\$1m grant to investigate Cynata's mesenchymal stem cells (MSCs) in ischaemic heart disease (IHD)**
- **IHD is the leading cause of heart failure and death worldwide: there is an urgent need for new therapeutic strategies**
- **Cynata to partner with multiple leading research institutions on this project, which will be led by SVIMR**
- **Cynata's Cymerus™ MSCs have been shown to have multiple positive effects in a preclinical model of IHD/heart attacks**
- **This project will focus on an innovative and minimally invasive method to harness the effects of MSCs in a sustained manner, to provide long-term cardiac reparative effects**

**Melbourne, Australia; 26 September 2022:** Cynata Therapeutics Limited (ASX: "CYP" or "Cynata"), a clinical-stage biotechnology company specialising in cell therapeutics, is delighted to announce that the Australian Government National Health and Medical Research Council (NHMRC) has awarded a grant of approximately \$1 million under the NHMRC 2021 MRFF Cardiovascular Health Mission, to fund a major preclinical research project to investigate Cynata's Cymerus™ MSCs as a treatment for IHD.

The project will be led by Dr Shiang (Max) Lim (Head, Cardiac Regeneration Laboratory, St Vincent's Institute of Medical Research, Melbourne). It will also involve a number of other leading institutions, including the University of Adelaide, Baker Heart and Diabetes Institute, the University of South Australia, Duke-National University of Singapore Medical School, the University of Arizona, Monash University, Westmead Institute for Medical Research, and hearts4heart. Cynata will supply Cymerus MSCs at its cost to facilitate the study.

The project is expected to run for a period of two years. It will involve encapsulating Cymerus MSCs in a clinical grade device which can be implanted below the skin (subcutaneously) to allow sustained delivery of the bioactive molecules released by the MSCs. Aims of the project include optimisation of the encapsulation approach, and demonstration of long-term cardiac repair in rat and sheep models of acute myocardial infarction, i.e. heart attack. If successful, it is anticipated that these studies would support progression to human clinical trials.

### **Dr Lim said:**

*"There is an urgent need for novel therapies to prevent the onset of heart failure and improve survival in patients with IHD. We firmly believe that MSC therapy has great potential to address this unmet need. Unlike conventional stem cell production methods, which are associated with scale up and consistency challenges, the Cymerus iPSC-based approach can provide an effectively unlimited source of consistent MSCs. This project aims to accelerate the development of a new, safe and minimally invasive method to*

*deliver the beneficial secretions of Cymerus MSCs to patients, using a retrievable encapsulation device that protects the cells, to allow long-term treatment for effective cardiac repair.”*

**Dr Kilian Kelly, Cynata’s Chief Operating Officer, said:**

*“IHD is the leading cause of death worldwide, and accounts for about 12% of all deaths in Australia. Our previous research has established that Cymerus MSCs show great promise as a treatment for cardiovascular disorders, including IHD. This new project aims to enable clinical translation of a novel approach to achieve sustained delivery of Cymerus MSCs in this patient population. We are very pleased that the MRFF has seen fit to provide a substantial amount of funding to progress this, and we look forward to working with Dr Lim and the highly credentialled team that he has assembled to execute this important project.”*

**-ENDS-**

Authorised for release by Dr Ross Macdonald, Managing Director & CEO

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**About Cynata Therapeutics (ASX: CYP)**

Cynata Therapeutics Limited (ASX: CYP) is an Australian clinical-stage stem cell and regenerative medicine company focused on the development of therapies based on Cymerus™, a proprietary therapeutic stem cell platform technology. Cymerus™ overcomes the challenges of other production methods by using induced pluripotent stem cells (iPSCs) and a precursor cell known as mesenchymoangioblast (MCA) to achieve economic manufacture of cell therapy products, including mesenchymal stem cells (MSCs), at commercial scale without the limitation of multiple donors.

Cynata’s lead product candidate CYP-001 met all clinical endpoints and demonstrated positive safety and efficacy data for the treatment of steroid-resistant acute graft-versus-host disease (GvHD) in a Phase 1 trial. Planning for a Phase 2 clinical trial in GvHD under a cleared US FDA IND is presently underway. Clinical trials of Cymerus products in osteoarthritis (Phase 3) and diabetic foot ulcers (DFU) are currently ongoing. In addition, Cynata has demonstrated utility of its Cymerus technology in preclinical models of numerous diseases, including the clinical targets mentioned above, as well as critical limb ischaemia, idiopathic pulmonary fibrosis, asthma, heart attack, sepsis, acute respiratory distress syndrome (ARDS) and cytokine release syndrome.

**Cynata Therapeutics encourages all current investors to go paperless by registering their details with the designated registry service provider, Automic Group.**