

## LUMC to Fund New Clinical Trial of Cynata's Cymerus™ MSCs in Kidney Transplantation

### Key Highlights:

- Cynata to collaborate with Leiden University Medical Center (LUMC) in the Netherlands, in a new clinical trial in patients who have received a kidney transplant
- Trial to be funded by LUMC; Cynata will supply iPSC-derived Cymerus mesenchymal stem cells (MSCs) at its cost to facilitate the trial and has full commercial rights
- There are approximately 130,000 kidney transplants around the world each year. Kidney transplantation is life-saving in patients with chronic renal failure and frees the patient from the need for dialysis.
- Currently, lifelong immune suppressive therapy is required in renal transplant patients to reduce the risk of rejection. This can lead to increased risk of infections and cancer and the main anti-rejection drugs are also directly toxic to the kidneys
- In previous clinical trials, mesenchymal stromal/stem cells have shown potential to enable the early withdrawal of anti-rejection drugs in renal transplant recipients without increased rejection and with preserved renal function

**Melbourne, Australia; 2 November 2022:** Cynata Therapeutics Limited (ASX: "CYP" or "Cynata"), a clinical-stage biotechnology company specialising in cell therapeutics, is delighted to announce that the LUMC is funding an important clinical trial to investigate Cynata's Cymerus™ MSCs as a treatment for renal graft rejection and to potentially reduce the requirement for anti-rejection drugs.

The clinical trial, entitled the "Safety and Efficacy of iPSC-derived Mesenchymal Stromal Cell Therapy in Renal Transplant Recipients - the Nereid Study", will be led by Prof. Ton Rabelink, Head of the Department of Internal Medicine of LUMC and will seek to recruit 10 patients who have undergone a renal transplant. The trial is expected to commence in 2023, pending receipt of customary and relevant regulatory, ethics and administrative approvals.

### Dr Ross Macdonald, Cynata's Chief Executive Officer, said:

*"This exciting new collaboration follows very promising clinical trial data with MSCs published by Professor Rabelink<sup>1</sup> and our own published pre-clinical data<sup>2</sup> in organ transplant rejection. The potential to enhance survival of transplanted donor organs while at the same time reducing or eliminating the need for damaging anti-rejection drugs would be a substantial breakthrough in transplantation*

<sup>1</sup> Reinders et al: *Autologous bone marrow-derived mesenchymal stromal cell therapy with early tacrolimus withdrawal: The randomized prospective, single-center, open-label TRITON study.* Am J Transplant. 2021;21:3055–3065

<sup>2</sup> Khan et al: *iPSC-derived MSC therapy induces immune tolerance and supports long-term graft survival in mouse orthotopic tracheal transplants.* Stem Cell Research & Therapy (2019) 10:290

*medicine. We are delighted to be working with one of Europe's leading transplant centres and with Professor Rabelink and his team to conduct this important clinical trial."*

**Professor Rabelink said:**

*"There is an urgent need for more effective management of immune rejection of donor organs while preserving organ function and minimizing side effects of anti-rejection therapy. From this perspective, MSC therapy is of interest and our own clinical studies have provided strong support for MSC treatment to substantially advance the field of transplantation medicine. The consistency and potency of Cynata's unique iPSC-derived Cymerus MSCs make them an ideal candidate for this clinical trial."*

-ENDS-

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

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**About the Clinical Trial**

The clinical trial, entitled "Safety and Efficacy of iPSC-derived Mesenchymal Stromal Cell Therapy in Renal Transplant Recipients – the Nereid Study", is an open label, non-randomized, non-blinded, prospective, single centre clinical phase Ib study. It will be conducted in 10 renal allograft recipients, aged 18-75 years old. The principal investigator is Dr. HS Spijker, Department of Nephrology, LUMC. Following their transplant surgery, patients will receive a drug used to treat graft rejection and two doses of Cymerus MSCs 6 and 7 weeks after transplantation followed by withdrawal of anti-rejection medication. The primary end point is safety by assessing absence of acute rejection (absence of graft loss after 6 months) after withdrawal of anti-rejection medication. Other end points include assessment of renal function at 6 months and the incidence of opportunistic infections.

**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.**