

## Further CYP-001 GvHD Clinical Data Published in Nature Medicine

**Two-year overall survival rate in patients with steroid-resistant acute GvHD was 60%**

**Melbourne, Australia; 22 May 2024:** Cynata Therapeutics Limited (ASX: “CYP”, “Cynata”, or the “Company”), a clinical-stage biotechnology company specialising in cell therapeutics, is pleased to announce the publication of two-year follow-up data of CYP-001 in patients with steroid-resistant acute graft versus host disease (SR-aGvHD) in the prestigious peer-reviewed journal *Nature Medicine*.

CYP-001 is Cynata’s Cymerus™ off-the-shelf iPSC<sup>1</sup>-derived MSC<sup>2</sup> product for intravenous infusion, which is being investigated as a potential immune modulating treatment.

Graft versus host disease (GvHD) is a potentially life-threatening complication in recipients of bone marrow transplantation or similar procedures. It arises when immune cells in the transplant (the graft) attack the recipient’s tissues (the host) as “foreign”. SR-aGvHD occurs when there is no response to corticosteroid treatment, which is the standard first-line treatment for aGvHD.

The newly published paper reports sustained outcomes at the two-year follow-up in the Phase 1 clinical trial of CYP-001 in patients with SR-aGvHD. Key results include a two-year overall survival rate of 60% (9/15 patients), with no treatment-related serious adverse events or safety concerns identified. This survival rate compares very favourably to previously reported outcomes in SR-aGvHD. For example, in the Phase 3 study that supported approval of the drug ruxolitinib, the 18-month overall survival rates were only 38% in the ruxolitinib group and 36% in the “best available treatment” control group (survival at two years was not evaluable).<sup>3</sup> Historically the prognosis in patients with SR-aGvHD has been very poor, with two-year overall survival rates below 20%.<sup>4</sup>

The details of the paper are as follows:

- Kelly K, Bloor AJC, Griffin JE, Radia R, Yeung DT, and Rasko JEJ. Two-year safety outcomes of iPSC-derived mesenchymal stromal cells in acute steroid-resistant graft versus host disease. *Nat Med*, 2024, <https://www.nature.com/articles/s41591-024-02990-z>

The two-year follow-up results build on the highly encouraging primary evaluation results at Day 100, which included Complete Response and Overall Response rates of 53% and 87%, respectively. The original paper summarising the primary evaluation results was published in *Nature Medicine* in 2020.<sup>5</sup>

**Professor John Rasko, AO,<sup>6</sup> the international coordinating Principal Investigator for the trial, said:**

“The publication of a second paper on this trial in such a high-impact journal is a testament to the importance of this project to the wider field of cellular therapy. This was the first ever completed clinical trial worldwide involving iPSC-derived cells of any kind. The overall survival outcomes and safety data in this group of patients are very promising, and we look forward to the continued development of Cymerus MSCs, in particular the ongoing global Phase 2 trial in aGvHD.<sup>7</sup> More broadly, our demonstration of the safe clinical use of iPSC-derived cells anticipates their application in diverse human diseases and regenerative medicine.”

**-ENDS-**

**Authorised for release by Dr Kilian Kelly, CEO & Managing Director**

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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. A Phase 2 clinical trial in GvHD under a cleared US FDA IND, as well as trials of Cymerus products in osteoarthritis (Phase 3) and diabetic foot ulcers (DFU) are currently ongoing, while a trial in renal transplant is expected to commence in the near future. In addition, Cynata has also demonstrated utility of its Cymerus technology in preclinical models of numerous diseases, including 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.**

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<sup>1</sup> iPSC = induced pluripotent stem cell.

<sup>2</sup> MSC = mesenchymal stem (or stromal) cell.

<sup>3</sup> Zeiser R. et al. N Engl J Med. 2020;382(19):1800-1810.

<sup>4</sup> Westin J.R. et al. Adv Hematol. 2011;2011:601953.

<sup>5</sup> Bloor AJC, et al. Nat Med. 2020;26:1720–1725.

<sup>6</sup> Prof Rasko is Head of Department, Cell & Molecular Therapies, Royal Prince Alfred Hospital, Sydney; Professor, Faculty of Medicine & Health, The University of Sydney; and Head, Gene and Stem Cell Therapy Program, Centenary Institute, Sydney.

<sup>7</sup> <https://clinicaltrials.gov/study/NCT05643638>