

ASX ANNOUNCEMENT

29 May 2024

Cynata Presenting at Major International Cell Therapy Conference

Melbourne, Australia; 29 May 2024: Cynata Therapeutics Limited (ASX: “CYP”, “Cynata”, or the “Company”), a clinical-stage biotechnology company specialising in cell therapeutics, will participate by invitation in the International Society of Cell and Gene Therapy (ISCT) Annual Meeting in Vancouver, Canada.

At 10:45am local time¹ on Wednesday 29 May, Dr Kilian Kelly, Cynata’s Chief Executive Officer and Managing Director, will take part in a panel discussion on “*Back to the Future: Setting up MSC Clinical Trials for Success*”.

At 1:45pm local time on Saturday 1 June, Dr Kelly will present on the clinical development of Cynata’s Cymerus™ off-the-shelf iPSC²-derived MSC³ products, as part of the *iPSC Scientific Signature Series*. A copy of the presentation is attached.

Established in 1992, the ISCT is a global society of clinicians, regulators, researchers, technologists, and industry partners with a shared vision to translate cell and gene therapy into safe and effective therapies to improve patients' lives worldwide. The ISCT annual meeting is expected to be attended by over 2,500 delegates.

Further information on the event can be found at the following link:

<https://www.isctglobal.org/isct2024/home>

-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.

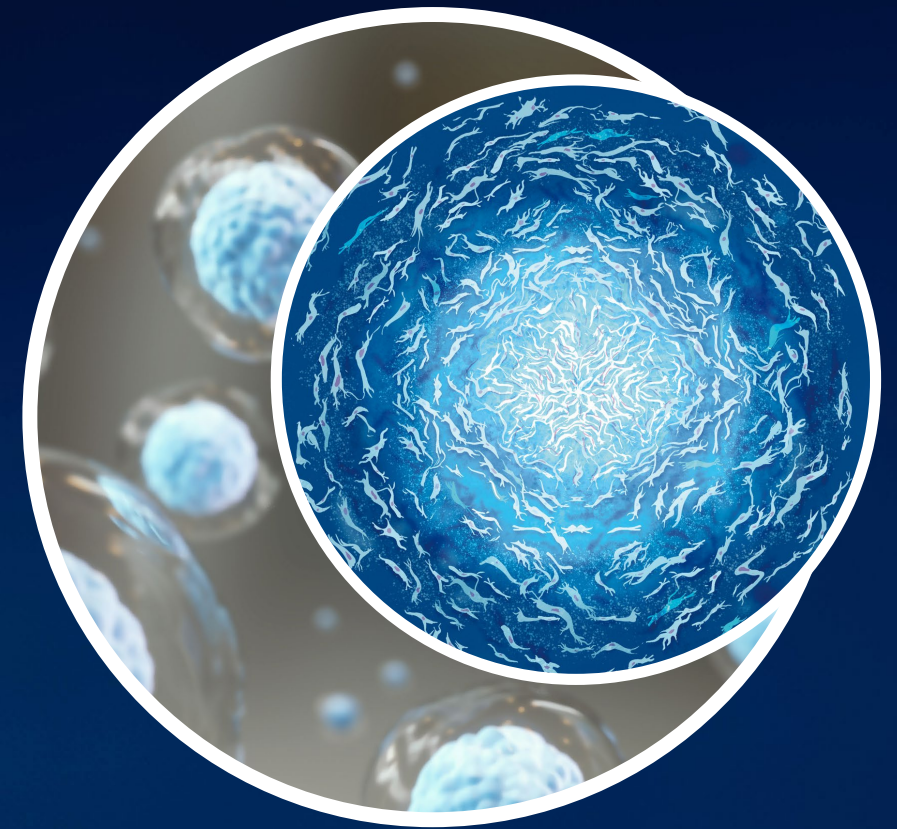
Cynata’s lead product candidate CYP-001 met all clinical endpoints and demonstrated positive safety and efficacy data for the treatment of steroid-resistant acute graft-versus-host disease (GvHD) in a Phase 1 trial. A Phase 2 clinical trial in GvHD under a cleared US FDA IND, as well as trials of Cymerus 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.

¹ Dates and times are in Pacific Daylight Time (UTC -7)

² iPSC = induced pluripotent stem cell

³ MSC = mesenchymal stem (or stromal) cell



Cymerus™ iPSC-derived MSCs – Clinical Development in Multiple Therapeutic Areas

Kilian Kelly, PhD

Chief Executive Officer and Managing Director

1 June 2024



Important information

Summary information

This Presentation contains summary information about Cynata Therapeutics Limited and its subsidiaries (CYP) which is current as at 28 May 2024. This Presentation should be read in conjunction with CYP's other periodic and continuous disclosure information lodged with the Australian Securities Exchange (ASX), which are available at www.asx.com.au.

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All financial information in this Presentation is in Australian currency (A\$) unless otherwise stated. This Presentation contains historical financial information based on the Company's results for the quarter to 31 March 2024. This information is disclosed in the Appendix 4C report lodged with the ASX on 30 April 2024. Any discrepancies between totals and sums of components in tables and figures in this Presentation are due to rounding.

Forward-looking statements

This Presentation contains certain 'forward looking statements', which can generally be identified by the use of forward looking words such as 'expect', 'anticipate', 'likely', 'intend', 'should', 'could', 'may', 'predict', 'plan', 'propose', 'will', 'believe', 'forecast', 'estimate', 'target', 'outlook', 'guidance', 'potential' and other similar expressions. The forward looking statements contained in this Presentation are not guarantees or predictions of future performance and involve known and unknown risks and uncertainties and other factors, many of which are beyond the control of CYP, its directors and management, and may involve significant elements of subjective judgment and assumptions as to future events which may or may not be correct. There can be no assurance that actual outcomes will not differ materially from these forward looking statements. A number of important factors could cause actual results or performance to differ materially from the forward looking statements. No representation or warranty, express or implied, is made as to the accuracy, likelihood of achievement or reasonableness of any forecasts, prospects, returns or statements in relation to future matters contained in this Presentation. The forward looking statements are based on information available to CYP as at the date of this Presentation. Except as required by law or regulation (including the ASX Listing Rules), CYP and its directors, officers, employees, advisers, agents and intermediaries undertake no obligation to provide any additional or updated information whether as a result of new information, future events or results or otherwise. You are strongly cautioned not to place undue reliance on forward-looking statements, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption caused by the outbreak of COVID-19.

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Company highlights

Revolutionary iPSC-based Cymerus™ manufacturing platform

- Effectively **limitless** quantity of **consistent, high-quality** mesenchymal stem cell (MSC) doses from a **single blood donation**
- Overcomes major obstacle to commercialisation in this highly promising field

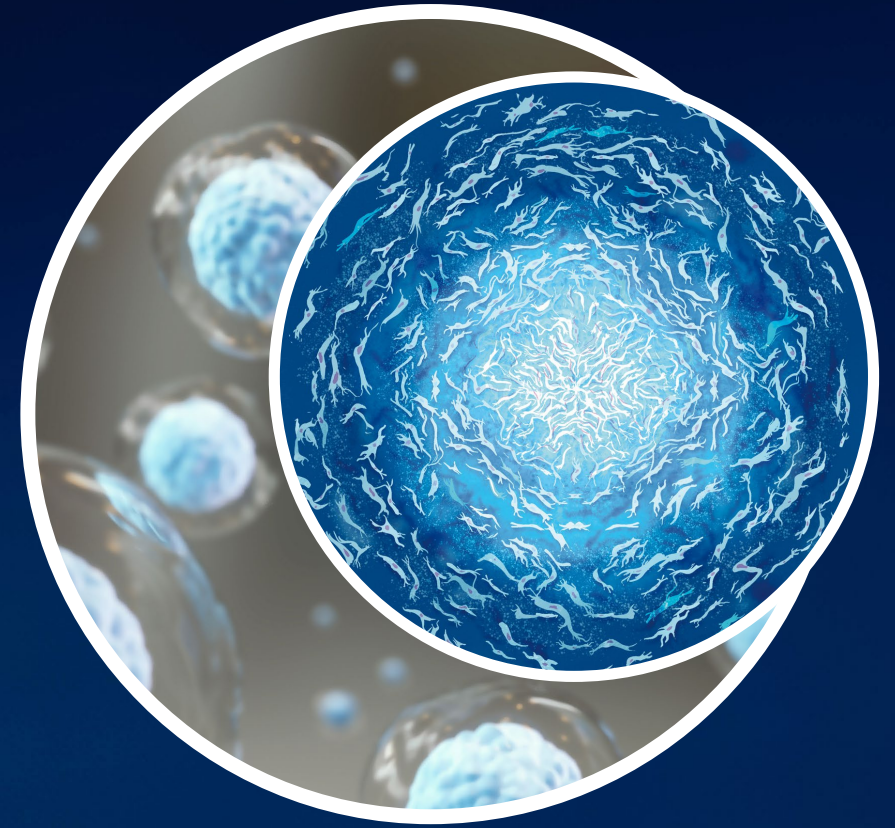
Compelling clinical data

- **Acute graft versus host disease (aGvHD) Phase 1:** 53% complete response; 87% overall response
- **Diabetic foot ulcer (DFU) Phase 1:** 88% median wound surface area reduction vs 51% in controls¹

Rich clinical pipeline

- Three major randomised controlled clinical trial readouts upcoming:
DFU (Phase 1) – early 2025; **aGvHD** (Phase 2) – 2H 2025; and **osteoarthritis** (Phase 3) – early 2026
- New trial in kidney transplantation to commence in Q2 2024

Revolutionary iPSC-based Cymerus™ Manufacturing Platform



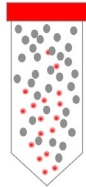
Conventional MSC process

Ongoing need for new donors



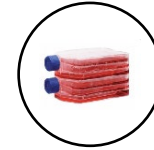
Substantial inter-donor **variability**

MSC isolation



Small number of MSCs per donation

Culture expansion



Extensive MSC culture expansion required

Major challenges:

- Logistically challenging
- Inter-donor **variability** – **inconsistent** activity in MSCs from different donors
- MSCs undergo **functional changes** during extensive culture expansion

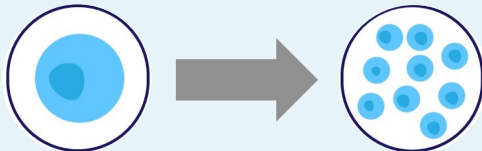
Cymerus™ iPSC-based process

One donor, one time



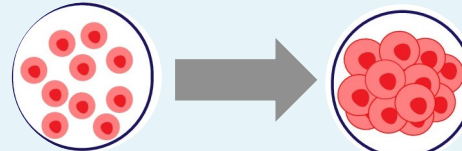
Avoids inter-donor variability

Reprogramming & iPSC expansion



Effectively limitless Expansion potential

Differentiation into MSCs & culture expansion

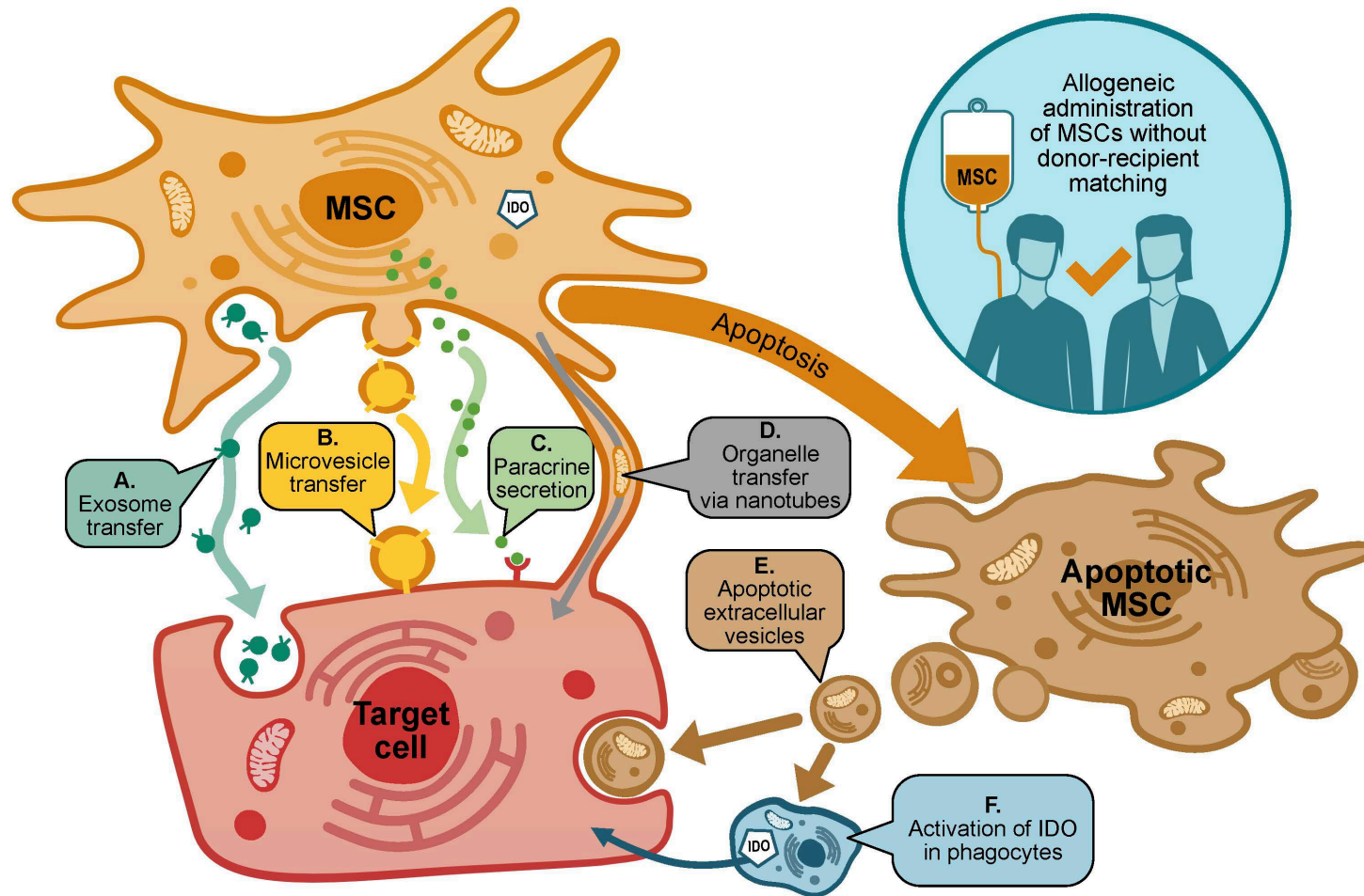


Minimal MSC culture expansion

Advantages of **Cymerus** platform:

- **Effectively limitless** iPSC expansion potential
- **Avoids** need for new donors
- **Avoids** inter-donor variability
- **Avoids** need for extensive MSC expansion
- High level of **consistency**

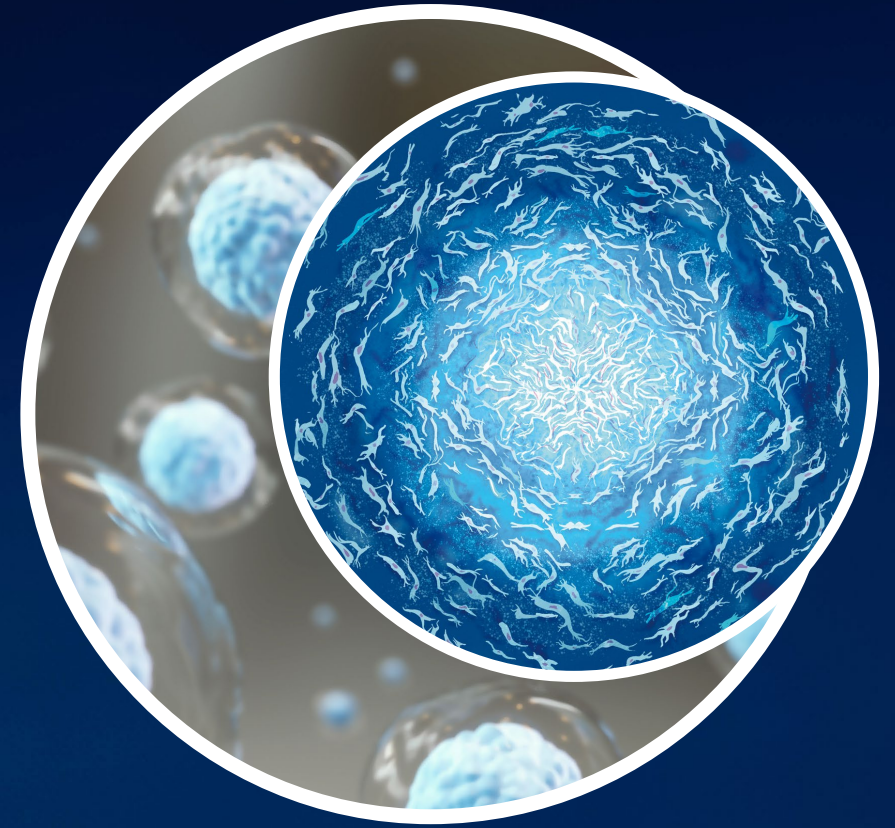
Therapeutic potential of MSCs







Mesenchymal stem (or stromal) cells (MSCs):

- Promote an **immunomodulatory** environment via multifactorial mechanisms¹
- The “sensor and switcher of the immune system”²
- Promote **tissue repair and regeneration**
- Can be used **without** donor/recipient matching
- Can be **engineered** to express other functional/therapeutic molecules

Rich Clinical Pipeline
– Multiple Upcoming Data
Readouts

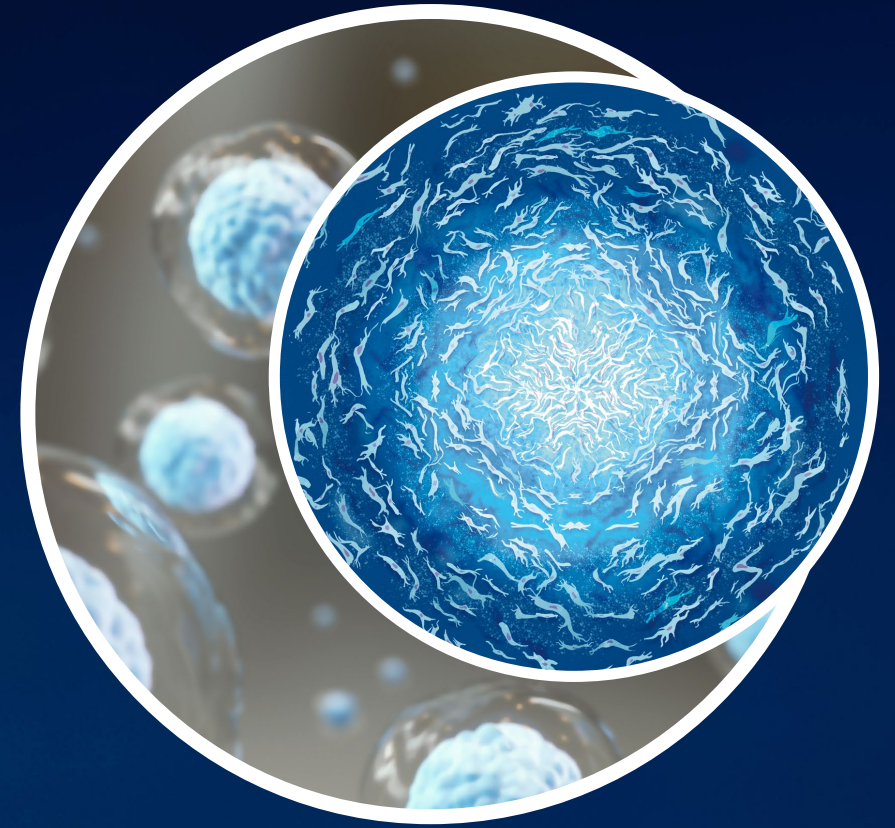


Advanced and diverse clinical pipeline

	Indication	Trial phase	Market opportunity
Cynata Sponsored	 Acute Graft vs Host Disease (aGvHD) CYP-001 <i>(FDA Orphan Designation)</i>	Phase 2 underway	US\$600m ¹
	 Diabetic Foot Ulcers (DFU) CYP-006TK	Phase 1 underway (recruitment complete)	US\$9.6bn ²
Partnered	 Osteoarthritis (OA) CYP-004 <i>(managed by USYD, funded by NHMRC)</i>	Phase 3 underway (recruitment complete)	US\$11.6bn ³
	 Renal Transplantation (Renal) CYP-001 <i>(managed and funded by LUMC)</i>	Phase 1 approved	US\$5.9bn ⁴

1. Global Graft versus Host Disease Market 2019-2029 (Reflects forecast market in 2026); 2. Zion Market Research, 2019 (represents global treatment market in 2025); 3. Persistence Market Research 2018 research report: "Osteoarthritis Treatment Market: Global Industry Analysis (2012-2016) and Forecast (2017-2025) (Reflect OA market by 2025); 4. Organ Transplant Immunosuppressant Drugs Market in 2026, Grand View Research, Inc., 2019

Acute Graft Versus Host Disease (aGvHD)



aGvHD | Phase 1 clinical trial

Product: CYP-001 (Cymerus MSCs for intravenous infusion)

- First completed clinical trial worldwide with any iPSC-derived product
- Led to two publications in *Nature Medicine*



Production, safety and efficacy of iPSC-derived mesenchymal stromal cells in acute steroid-resistant graft versus host disease: a phase I, multicenter, open-label, dose-escalation study

Adrian J. C. Bloor^{1,2}, Amit Patel¹, James E. Griffin³, Maria H. Gilleece⁴, Rohini Radia⁵, David T. Yeung^{6,7}, Diana Drier⁸, Laurie S. Larson⁸, Gene I. Uenishi⁹, Derek Hei¹⁰, Kilian Kelly¹¹, Igor Slukvin⁹ and John E. J. Rasko^{12,13,14}

nature medicine



Brief Communication

<https://doi.org/10.1038/s41591-024-02990-z>

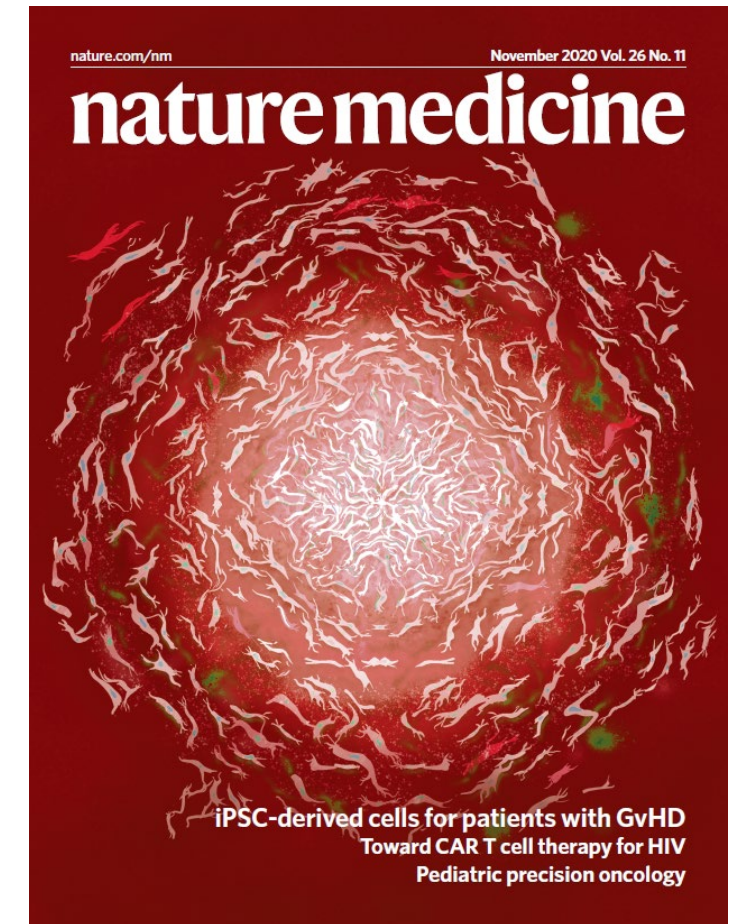
Two-year safety outcomes of iPSC cell-derived mesenchymal stromal cells in acute steroid-resistant graft-versus-host disease

Received: 9 December 2023

Accepted: 10 April 2024

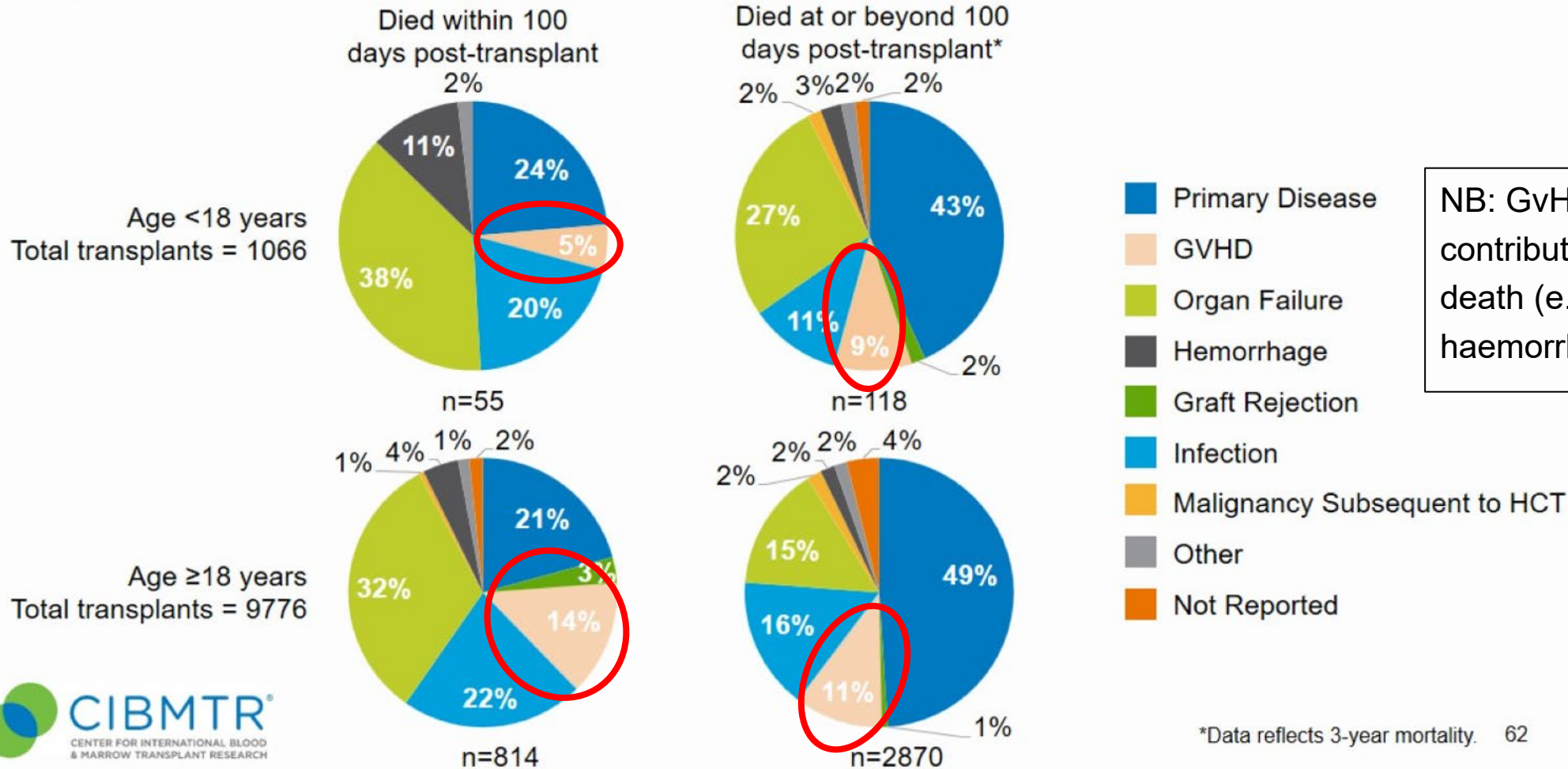
Published online: 22 May 2024

Kilian Kelly¹, Adrian J. C. Bloor², James E. Griffin³, Rohini Radia⁴, David T. Yeung^{5,6} & John E. J. Rasko^{7,8,9}



GvHD is a significant cause of death after HSCT

Causes of Death after Matched Unrelated Donor HCTs in the U.S., 2018-2020



NB: GvHD may also contribute to other causes of death (e.g. infection, haemorrhage, organ failure)



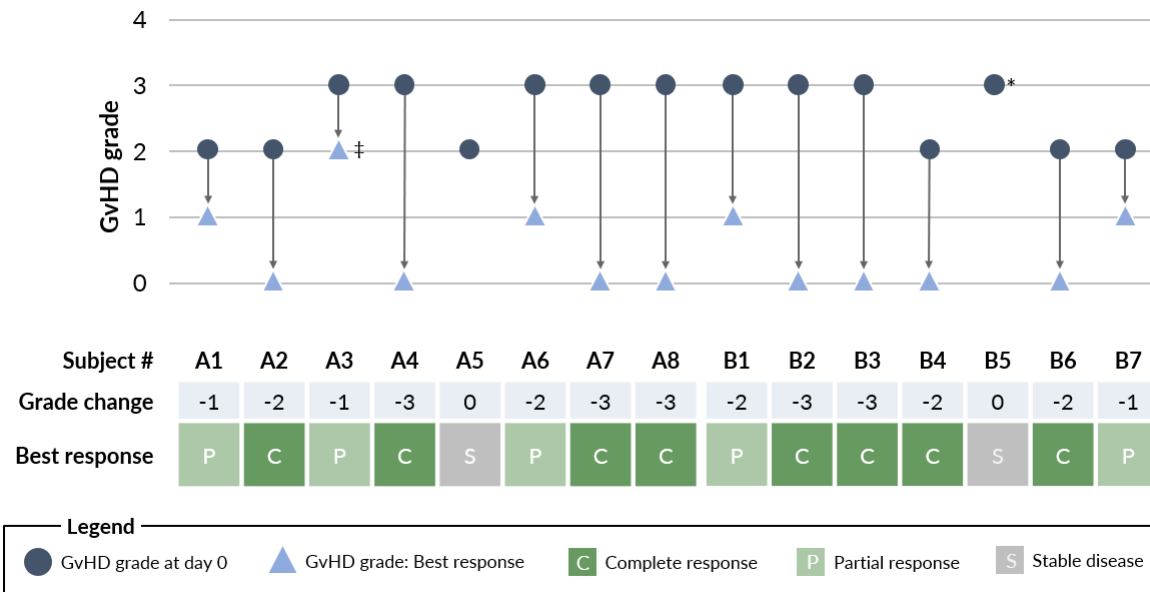
Source: Bolon YT, Atshan R, Allbee-Johnson M, Estrada-Merly N, Lee SJ. Current use and outcome of hematopoietic stem cell transplantation: CIBMTR summary slides, 2022

Overview of CYP-001 Phase 1 Clinical Trial

Protocol #	CYP-GvHD-P1-01
Clinical sites	7 (UK and Australia)
Eligibility	<ul style="list-style-type: none">• Adults with Grade 2-4 SR-aGvHD• Life expectancy of at least 1 month
Study Design	Two sequential cohorts, n=8 per cohort: <ul style="list-style-type: none">• Cohort A: 1×10^6 cells/kg (max 1×10^8 cells) by IV infusion on D0 and D7• Cohort B: 2×10^6 cells/kg (max 2×10^8 cells) by IV infusion on D0 and D7
Endpoints	<ul style="list-style-type: none">• Safety and tolerability (primary)• Complete/Partial Response by D28/D100• Overall survival up to 2 years

aGvHD | Phase 1 clinical trial - results

Product: CYP-001 (Cymerus MSCs for intravenous infusion)



- No serious adverse events, tumors or other safety concerns related to CYP-001
- Causes of death were complications commonly observed in allogeneic HSCT recipients, not considered by investigators to be related to CYP-001 treatment
- Survival rate compares favourably to other interventions – e.g. in Phase 3 trial of ruxolitinib, OS at 18 months was 38% in ruxolitinib group and 36% in ‘best available therapy’ group (2 year OS was not evaluable)
- CYP-001 was shown to be safe and well tolerated, with sustained outcomes up to 2 years after the first infusion

aGvHD | Phase 2 clinical trial

Product

CYP-001 (Cymerus™ iPSC-derived MSCs for intravenous infusion)

Indication

High risk acute graft versus host disease (aGvHD)¹

Study Design

- Randomised controlled trial in ~60 adults (steroids + CYP-001 vs steroids + placebo)
- Primary objective is to assess efficacy of CYP-001 based on Overall Response Rate at Day 28

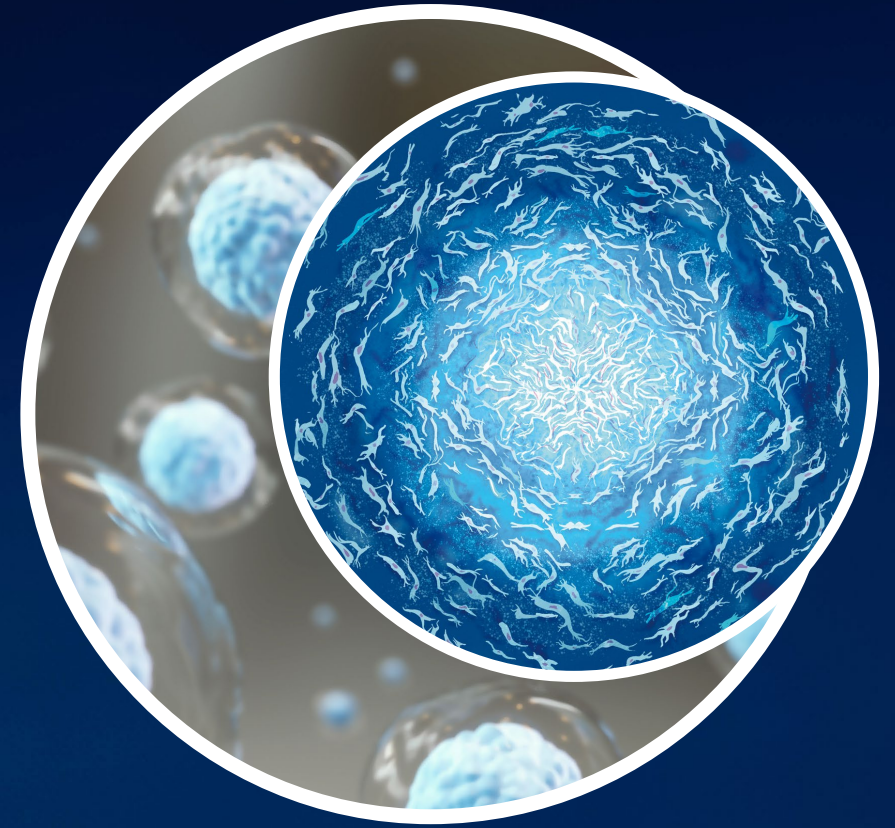
Study Conduct

- Clinical sites in USA, Europe and Australia
- Regulatory/ethics approvals secured in Australia, USA, Turkey and EU
- Numerous sites now open for recruitment, with remainder expected to open in Q2 2024
- First patient enrolled – March 2024
- Aiming to complete recruitment by end of calendar year 2024

Results

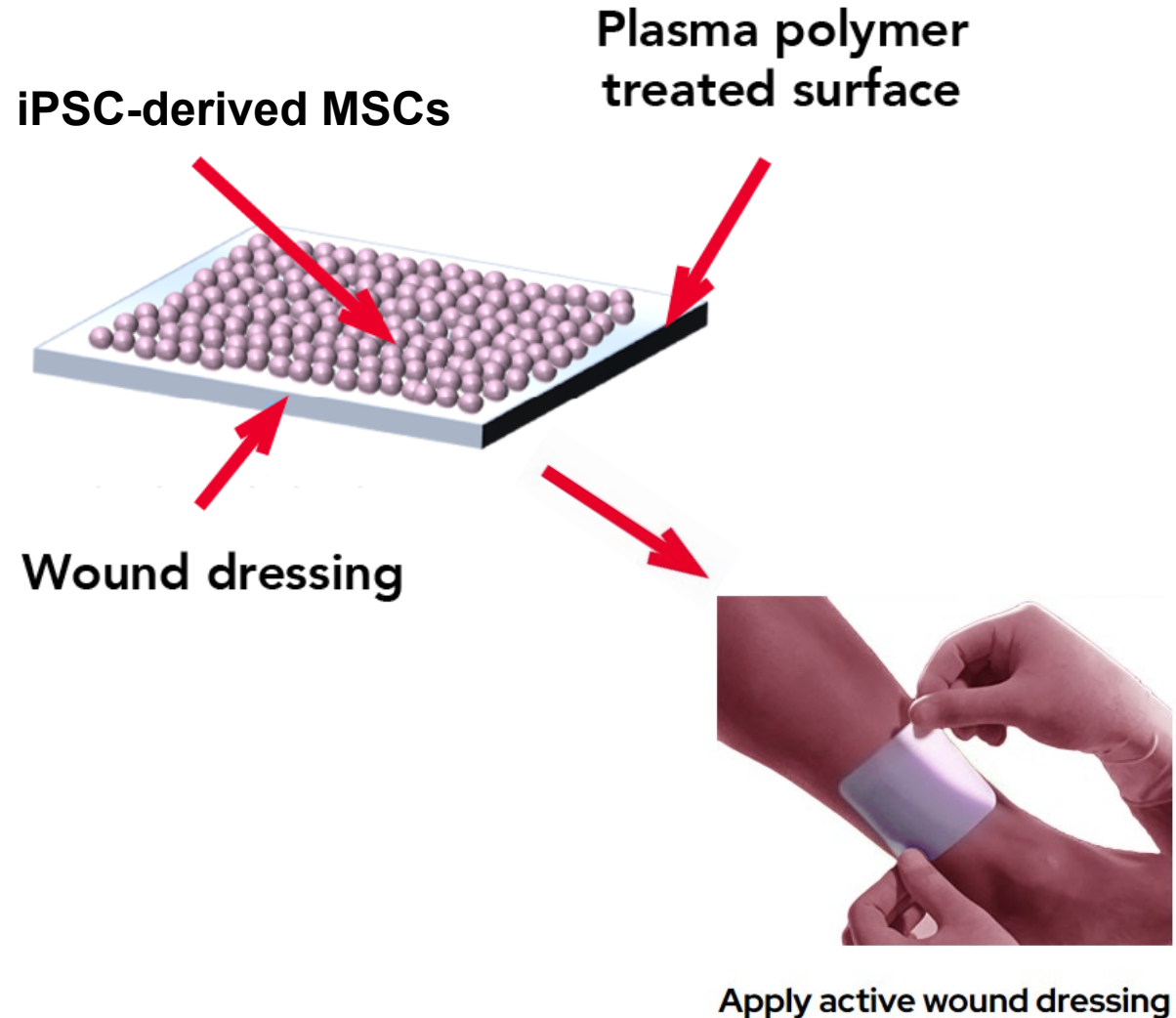
Primary evaluation results anticipated in 2H CY 2025

Diabetic Foot Ulcer (DFU)



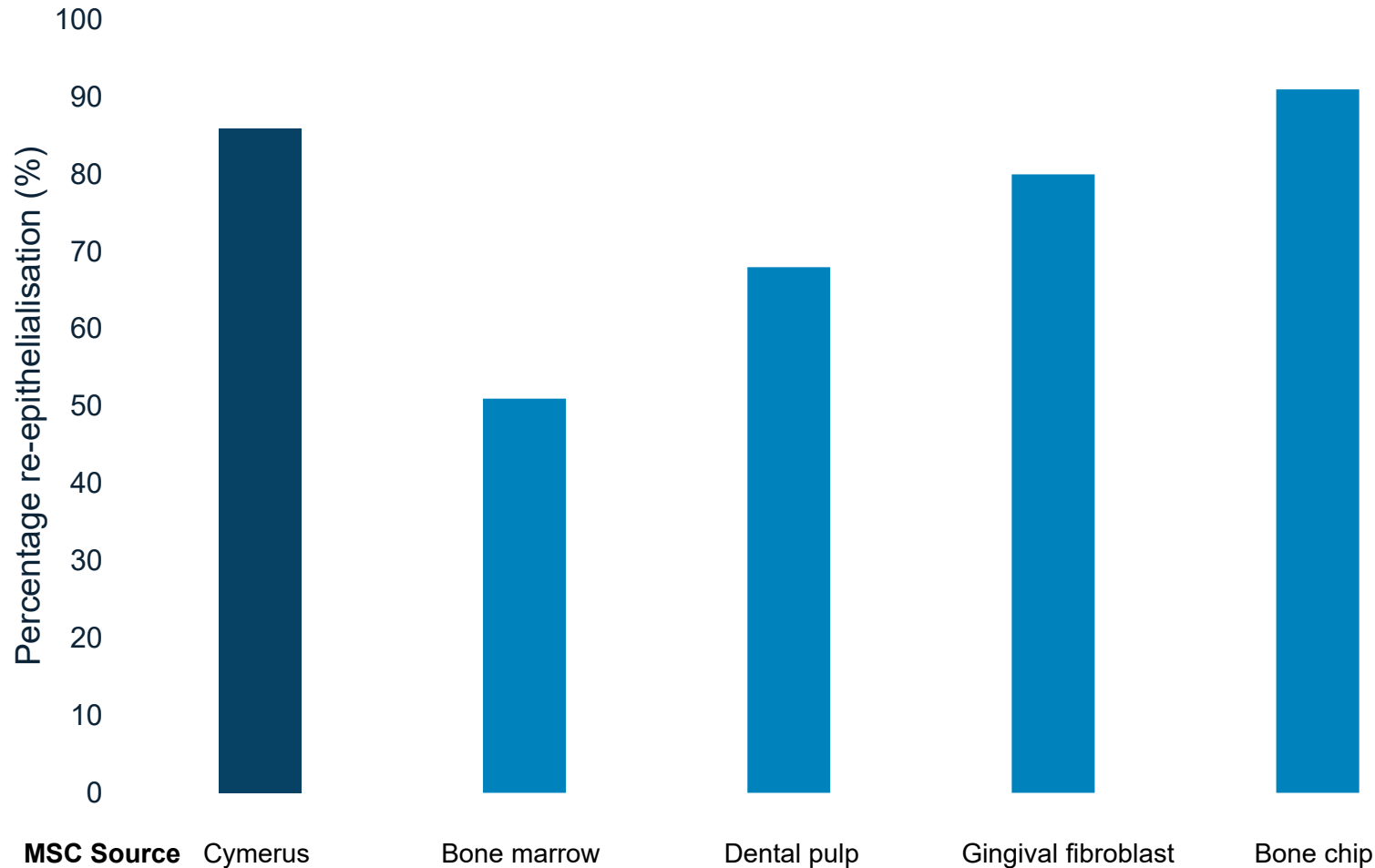
CYP-006TK – a novel topical MSC product

- CYP-006TK utilises a proprietary surface-coating, optimised for the delivery of MSCs directly to the wound bed
- Technology exclusively licenced to Cynata by Tekcyte Limited



Preclinical study in diabetic wounds

Murine model of diabetic wounds



Key findings

- Primary outcome measure was extent of re-epithelialisation of wound surface after 3 days
- Comparator MSCs were derived using conventional manufacturing
- Cymerus MSCs resulted in significantly greater re-epithelialisation (86%) compared to bone marrow MSCs (51%)
- Although gingival fibroblasts and bone chip MSCs produced similar results, there are major challenges associated with producing clinical-grade cells from those sources at commercial scale

DFU | Phase 1 clinical trial

Product

CYP-006TK (Novel silicone dressing seeded with Cymerus™ iPSC-derived MSCs)

Indication

Non-healing diabetic foot ulcers (DFU)

Study Design

- Randomised controlled trial in ~30 adults
- Patients randomised to receive either standard of care or CYP-006TK for 4 weeks, followed by standard of care
- Primary objective is safety; efficacy measures include wound healing, pain and quality of life

Study Conduct

- Clinical sites in Australia (Adelaide and Perth)
- Recruitment complete (April 2024)
- Last patient visit expected ~September 2024

Results

- Positive initial results from first 16 patients released Feb 2024 (see next slide)
- Final results anticipated in Q4 2024 or Q1 2025

DFU | Phase 1 clinical trial – initial data

Product: CYP-006TK (topical Cymerus MSC wound dressing)

- Ongoing trial in non-healing diabetic foot ulcer (DFU)
- Patients randomised to receive standard of care (SoC) or CYP-006TK for 4 weeks, followed by SoC
- In the first 16 patients enrolled in the trial (8 per group), after 10 weeks' follow-up, the median reduction in wound surface area was:
 - **87.6%** in the active CYP-006TK group
 - compared to **51.1%** in SoC group

Example of ulcer healing in patient treated with CYP-006TK:

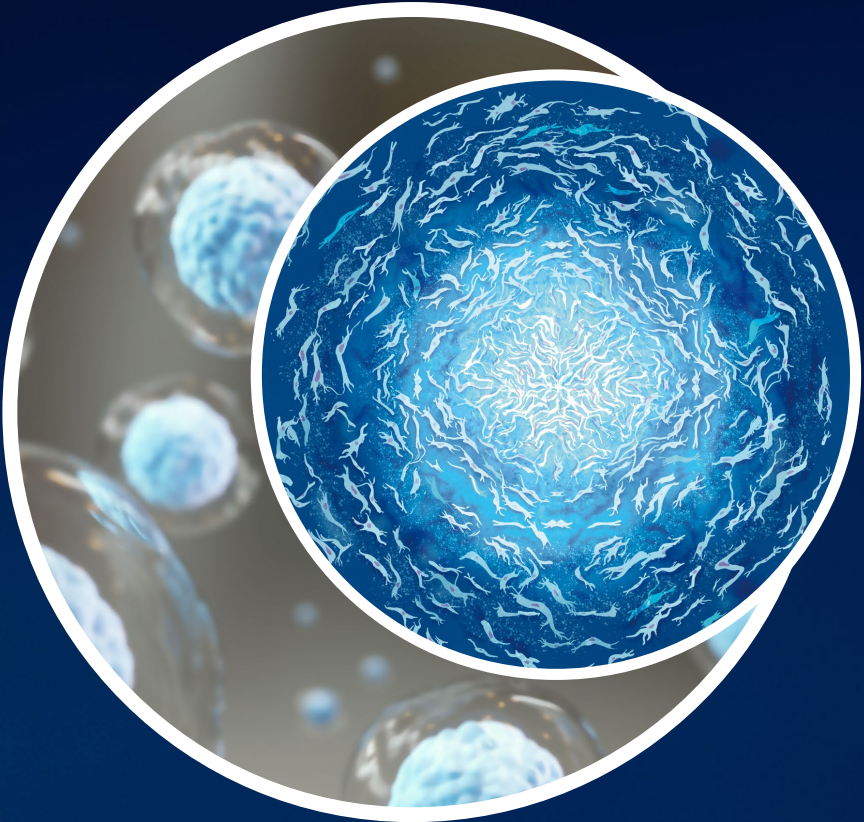
Day 0



Day 28



Osteoarthritis



OA | Phase 3 clinical trial¹

Product

CYP-004 (Cymerus™ iPSC-derived MSCs for intra-articular injection)

Indication

Osteoarthritis (OA) of the knee (Kellgren-Lawrence Grade 2-3)

Study Design

- Randomised, double-blind placebo-controlled trial in ~320 adults
- Each participant receives 3 injections over 12 months; follow-up of 24 months from first dose
- Co-primary endpoints are reduction of knee symptoms and measure of cartilage loss

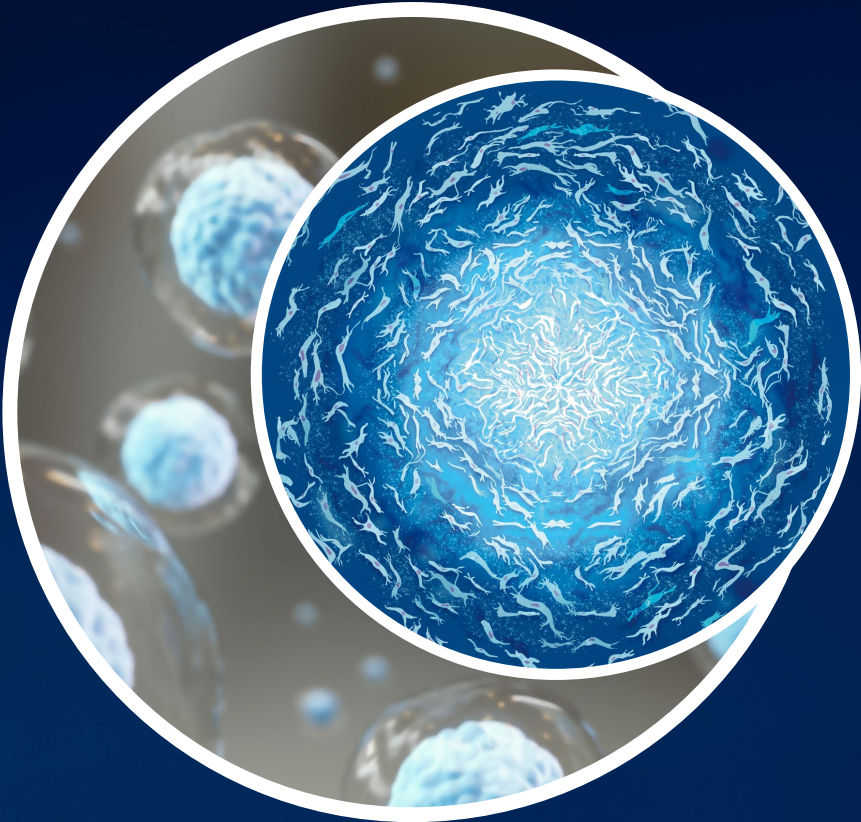
Study Conduct

- Trial conducted by University of Sydney, funded by Australian Government NHMRC grant
- Clinical centres in Australia (Sydney and Hobart)
- Recruitment complete (November 2023)
- Last patient last visit expected ~November 2025

Results

- Results anticipated in H1 CY 2026

Renal Transplant



Renal transplant | Phase 1 clinical trial

Product

CYP-001 (Cymerus™ iPSC-derived MSCs for intravenous infusion)

Indication

Prevention of kidney transplant rejection

Study Design

- ~16 patients to receive CYP-001 after kidney transplantation: cohort 1 (n=3); cohort 2 (n=3); cohort 3 (n=10)
- Trial will evaluate safety (all cohorts) and efficacy of MSCs in facilitating reduction of calcineurin inhibitors (anti-rejection medication; Cohort 3)

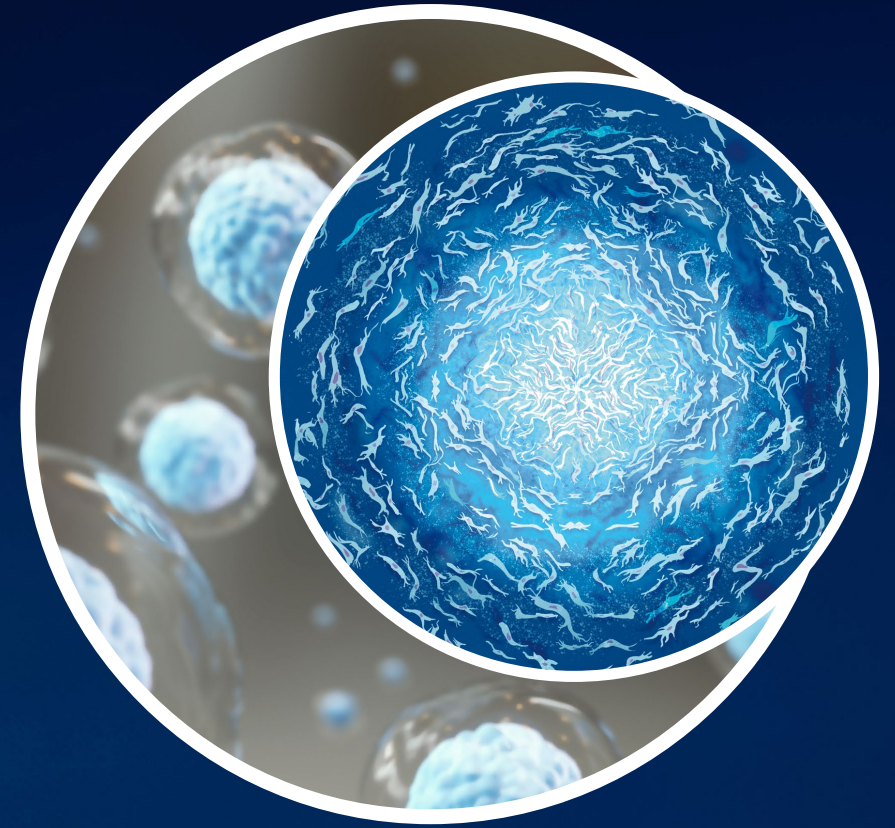
Study Conduct

- Trial to be conducted and funded by Leiden University Medical Center (LUMC), Netherlands
- Regulatory and ethics approvals in place; final trial start-up activities ongoing
- Aiming to commence recruitment in Q2 2024

Results

Results of Cohort 1 anticipated in late 2024

Preclinical Programs



Research partnerships

Large body of positive preclinical data generated via R&D partnerships:

- GvHD
- Diabetic wounds
- Critical limb ischaemia
- Organ transplant rejection
- Osteoarthritis
- Respiratory disorders (including asthma, pulmonary fibrosis, acute respiratory distress syndrome)
- Sepsis
- Cardiovascular disorders (including coronary artery disease, myocardial infarction)
- Cytokine release syndrome
- Glioblastoma

Several of these studies have been published in peer-reviewed journals – see [cynata.com/science_publications](https://www.cynata.com/science_publications)

Studies conducted in partnership with leading research groups worldwide



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