



# A Next Generation Stem Cell Therapeutics Company

Cynata Therapeutics Limited (ASX: CYP) – Outlook and Investor Presentation  
1 November 2018

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# Agenda

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# 1 2018 Highlights and strategy

# Significant progress in 2018



## Meaningful impact on patient's lives

- Completed first in-human trial of Cymerus™ MSCs, treating 15 patients with acute graft-versus-host disease who had failed all other approved treatment options and had a bleak outlook

*Improved health outcomes for patients facing extremely grim prognosis*



## Completed GvHD trial

- Completed data collection for Phase 1 trial in GvHD
- Formal study report being finalised
- Outstanding efficacy results
- No safety concerns
- International media attention

*Phase II trial expected to start in 2019*



## Selected next clinical trial candidate

- Critical Limb Ischaemia (CLI): major clinical challenge and unmet need
- Severely impaired blood flow in the arteries: typically legs
- Trial design, scope, cost and schedule being developed

*CLI Phase II trial expected to start in 2019*



## Deepened relationship with Fujifilm

- Commenced planning for Phase II trial in GvHD with Fujifilm
- Conducted joint session with Japanese regulator (PMDA) and joint media briefings

*Fujifilm's actions indicate their support*



## Advanced pre-clinical programme

- Clear supporting data for efficacy of Cymerus MSCs in multiple indications
- Broadened patent portfolio
- Enables multiple commercial discussions

*Multiple irons in the fire*



## Secured cornerstone investment

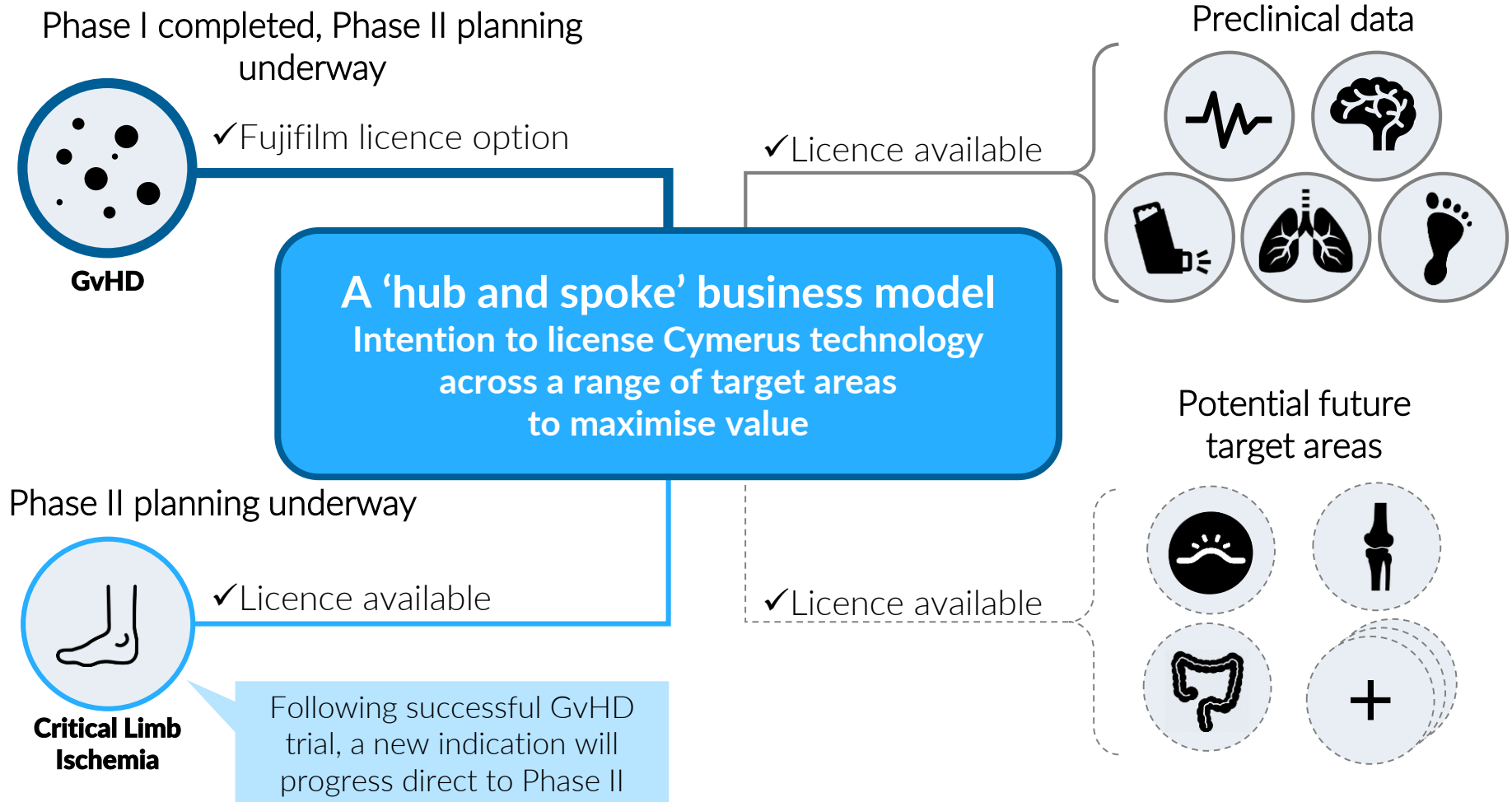
- Fidelity International acquired ~9.5m shares through a combination of on market buying and a share placement of \$5.2m at \$1.275
- Cash balance of \$10.9m at 30 Sept 18

*Strong cash runway*

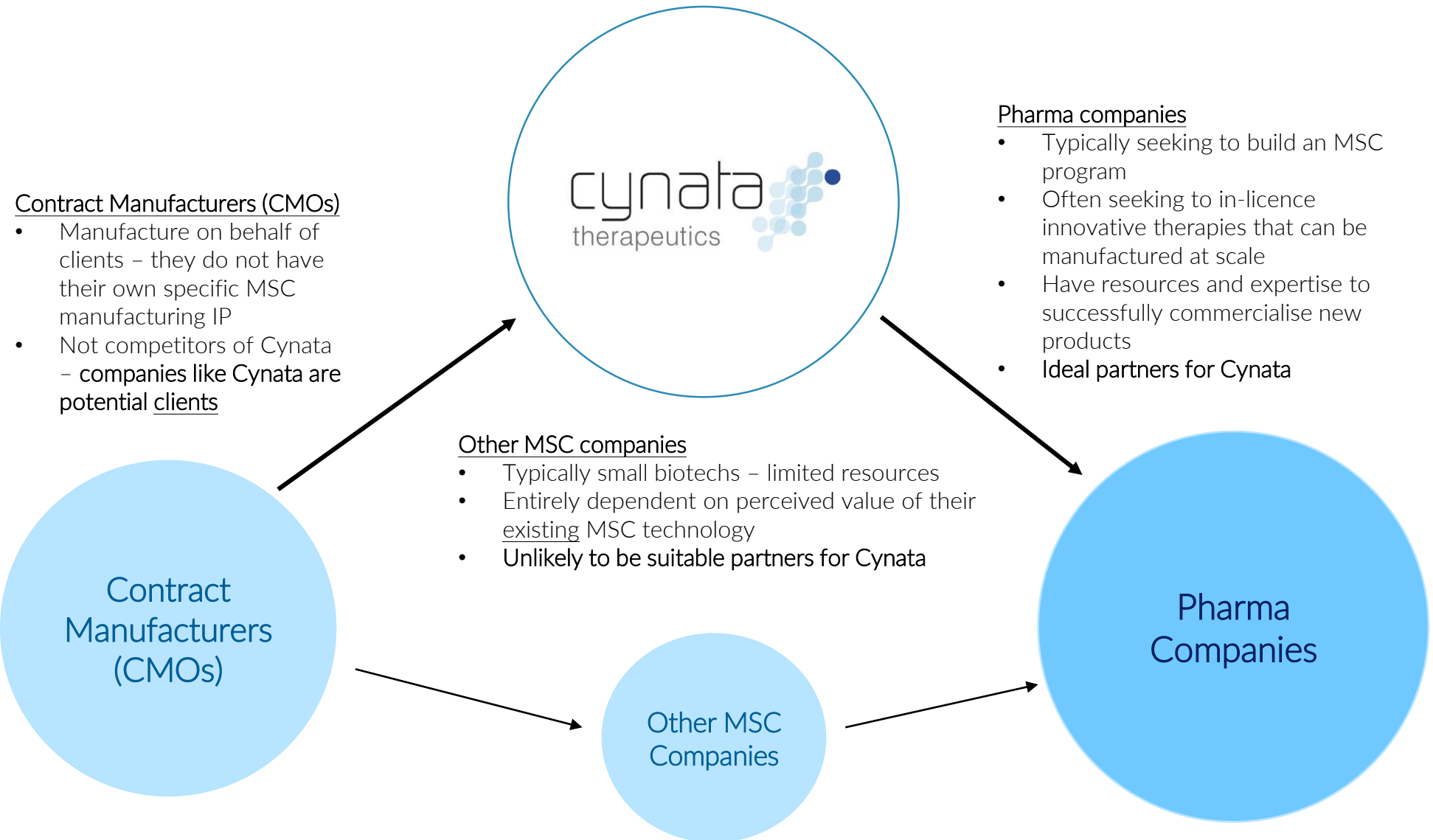
# Investment Summary: a Phase II-ready biotech with a highly scalable, proprietary platform for producing commercial quantities of allogeneic MSCs

<b>Scalable, globally applicable technology</b>	<ul style="list-style-type: none"><li>▪ Cymerus platform enables production of high quality Mesenchymal Stem Cells at scale</li><li>▪ Fully patented process overcomes multiple issues with today's on-market solutions</li></ul>
<b>Excellent results from Phase I trial in GvHD</b>	<ul style="list-style-type: none"><li>▪ All trial endpoints achieved: no adverse safety events, highly encouraging efficacy</li><li>▪ GvHD programme well positioned to progress to Phase II</li><li>▪ Safety data enables Cynata to move directly to Phase II in other indications</li></ul>
<b>Clear pipeline of high-potential target areas</b>	<ul style="list-style-type: none"><li>▪ Cardiovascular disease identified as priority indication area for expanded trial pipeline</li><li>▪ Planning for Phase II programme in Critical Limb Ischemia (CLI) underway</li><li>▪ Compelling pre-clinical data in multiple other high-value target areas</li></ul>
<b>Well-funded to progress clinical programme</b>	<ul style="list-style-type: none"><li>▪ Cash balance of \$10.9m as at 30 September 18, reinforced by \$5.2m placement of shares to leading institutional investor Fidelity International on 30-May-18;</li><li>▪ Fidelity: #1 shareholder (~10%)</li></ul>
<b>Attractive partnering business model</b>	<ul style="list-style-type: none"><li>▪ Fujifilm hold licence option for GvHD – will pay all costs of all further development and commercialisation <u>plus</u> \$60m in milestone payments <u>plus</u> royalties if exercised</li><li>▪ Licence agreements and strategic partners for other indications being explored</li></ul>
<b>Valuable and active market</b>	<ul style="list-style-type: none"><li>▪ Estimated \$1.7bn revenue opportunity for MSC products in GvHD and CLI alone</li><li>▪ Over 850 clinical trials investigating the efficacy of MSCs across numerous indications</li><li>▪ Multiple pharma companies active in stem cell M&amp;A</li></ul>

# Cynata's goal is to develop a new generation of highly potent allogeneic MSC cell therapeutics in areas of high unmet clinical need



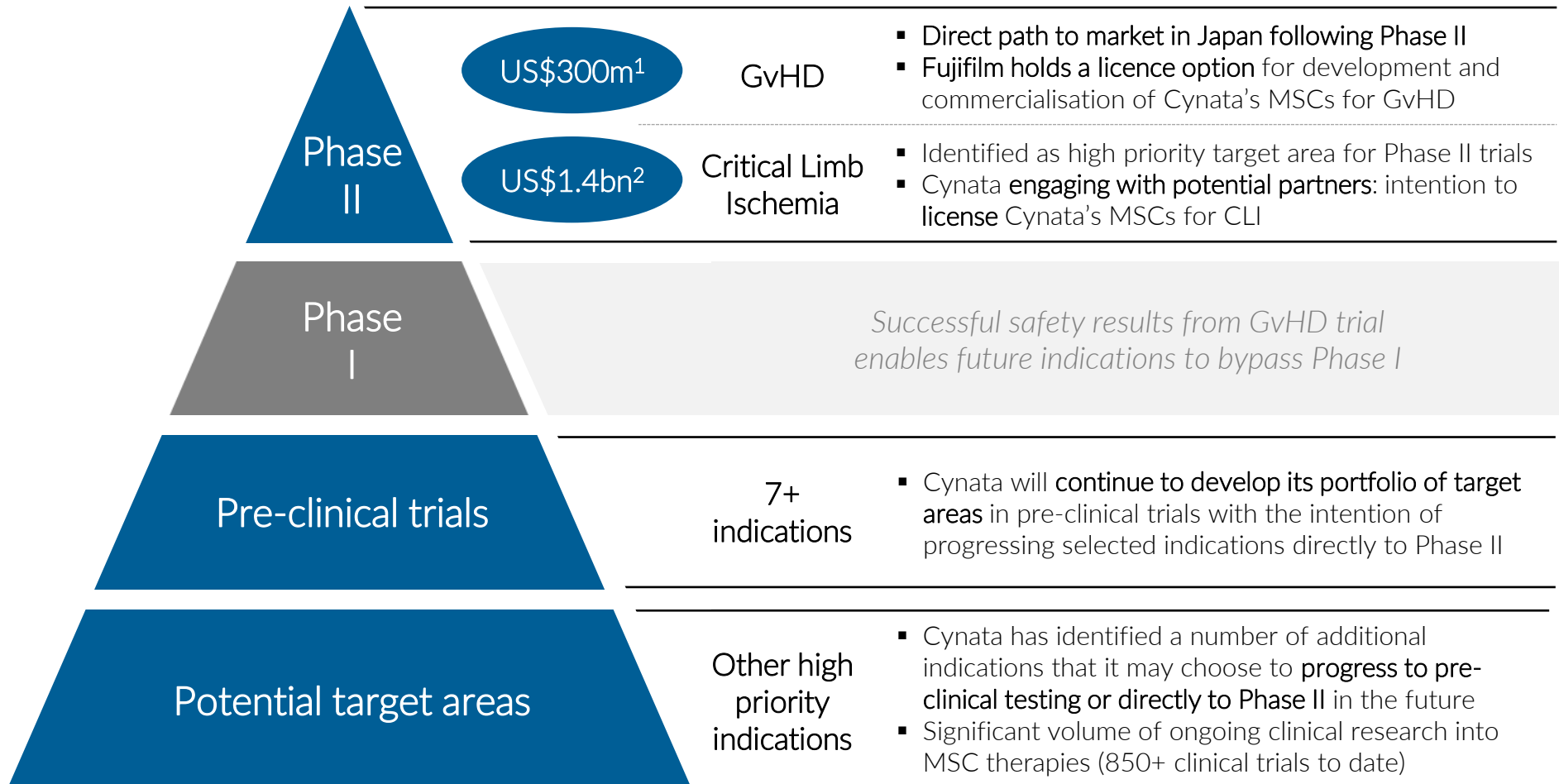
# The MSC Ecosystem





# Strong clinical pipeline and program supports Cynata's commercial objectives

## New enhanced pipeline and clear pathway to commercialisation



# Cynata is executing on a clear scientific and commercial vision and continually assesses pathways to maximise shareholder value

## Multiple options to create shareholder value

Build value in platform independently  
*(e.g. continue running clinical trials)*

License / partner with big Pharma to develop specific target areas  
*(e.g. Fujifilm's existing option for GvHD)*

Strategic exit/merger  
*(e.g. Strategic acquirer)*

Fujifilm holds a licence option for development and commercialisation of Cynata's MSCs for GvHD

### Exercise of Fujifilm option (US\$3m)

- Fujifilm can exercise up to 90 days after submission of Phase 1 trial CSR.
- On exercise Cynata receive upfront **US\$3m** milestone payment
- Fujifilm responsible for all further development activities and costs

### Phase 2 and beyond (potential US\$30m+ p.a.)

- Fujifilm to pay Cynata on attaining agreed milestones (**\$60m+**) and double-digit royalties on product sales
- Fujifilm's projections for the GvHD market suggest **>US\$30m** per year in royalties for Cynata if Fujifilm forecast sales attained

## Cynata is currently commercialising its Cymerus platform

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- Cynata is commercialising a **platform technology** with multiple potential commercial avenues; its business model is to secure licensees to progress clinical trials and commercialise its MSC technology in a range of indications
- The company is in **active, confidential discussions regarding licence transactions** with multiple potential partners in multiple indications; discussions ongoing with Celularity pursuant to the announced MoU
- The company is currently negotiating non-binding, confidential **term sheets with multiple parties**; however, there can be no assurances that any of these deals will come to fruition
- **All license discussions are confidential and inherently commercially sensitive**
  - The market will be informed via an ASX announcement as soon as any material commercial agreement has been concluded
- The **Board and Management are pleased with commercial progress** in 2018 and are committed to this business model





## Graft vs Host Disease (GvHD)

Study update and next steps

# Clinical Protocol: CYP-GvHD-P1-01

## Overview of clinical trial protocol

Population: ~16 Adults with steroid-resistant acute GvHD

		Primary Evaluation Period							
Visit	1	2	3	4	5	6	7	8	
Days after first dose	0	3	7	14	21	28	60	100	



\* The clinical investigator determined that one patient was no longer a suitable candidate for treatment, due to a medical complication that occurred shortly after enrolment (but prior to treatment with CYP-001).

## Summary of Key Results

Excellent results in Phase 1 GvHD clinical trial, a clear validation of Cynata's MSCs and the Cymerus platform

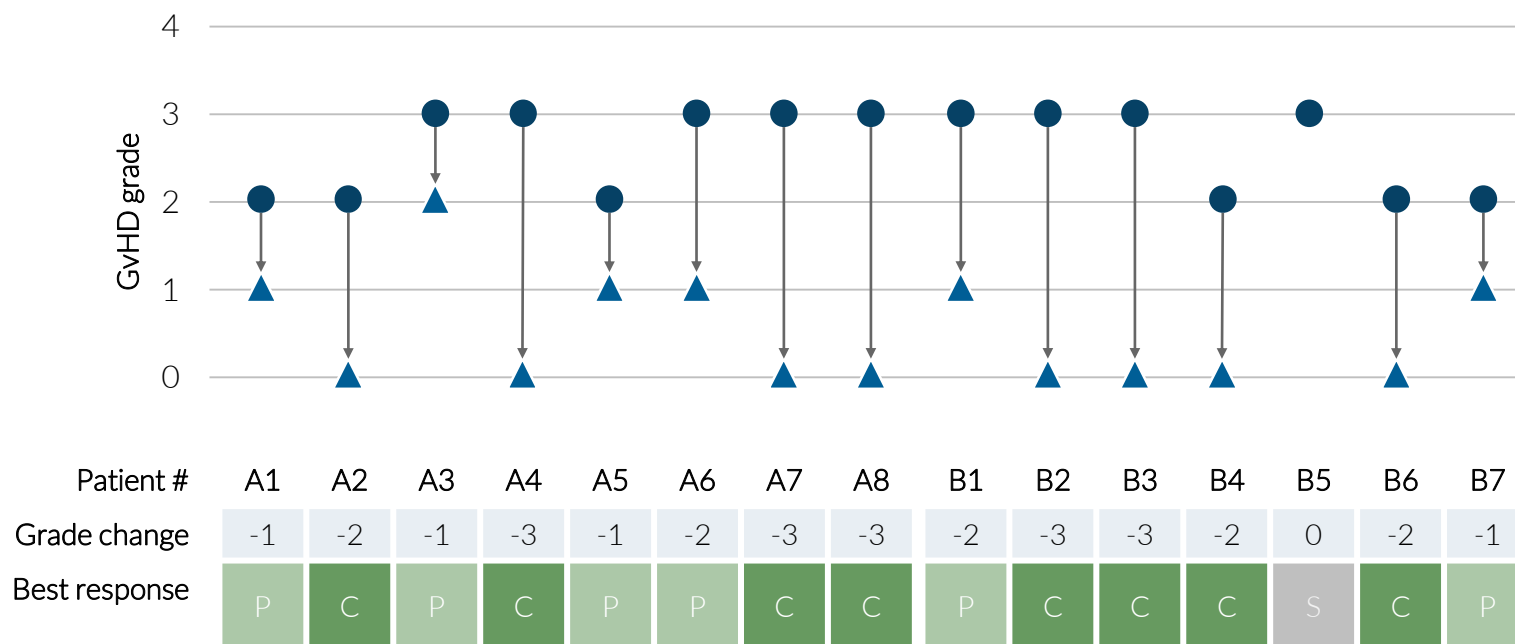
### ✓ All endpoints achieved

	Cohort A (28 days)	Cohort B (28 days)	Pooled (28 days)	Cohort A (100 days)	Cohort B (100 days)	Pooled (100 days)
Safety	✓ No safety issues / treatment relate adverse events observed					
Complete Response	✓ 13%	✓ 57%	✓ 40%	✓ 50%	✓ 57%	✓ 53%
Overall Response	✓ 75%	✓ 86%	✓ 80%	✓ 100%	✓ 86%	✓ 93%
Overall Survival <sup>1</sup>	✓ 88%	✓ ≥86%	✓ ≥87%	✓ 88%	✓ ≥86%	✓ ≥87%

1. One patient in cohort A died of pneumonia (unrelated to treatment) and one patient in cohort B withdrew from the trial on Day 22 to commence palliative care.

# GvHD Response – By Subject

Substantial improvement in GvHD grades observed with the majority of patients reporting a Complete Response



Legend

- GvHD grade: As at day 0
- ▲ GvHD grade: Best response
- C Complete response
- P Partial response
- S Stable disease

## Significance of Findings

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Patients with steroid-resistant acute GvHD typically face a dire prognosis, with extremely high mortality rates

Overall response rate of 93%  
A meaningful impact on patients' lives

### Key implications of clinical trial results

#### Endpoints

- Endpoints in this trial were the **same** as those required in a Phase 3 trial (in contrast to early phase trials for some other conditions)

#### Response rates

- Response rates were **higher** than what we expect would be required in Phase 3, to support marketing approval

#### Number of patients

- Although the Phase 1 trial involved just 15 treated subjects, **even late stage trials in this condition do not necessarily involve large numbers**
- For comparison, recently completed Phase 3 trials in Japan and US have involved just 25 and 55 patients, respectively

*For further details of the implications of Cynata's clinical trial, please refer to a video interview with Cynata's VP of Product Development, Dr Kilian Kelly (available here: <https://www.cynata.com/news/gvhd-trial-results-and-implications>)*



# Competitive Position

Results to date suggest that CYP-001 may be superior to other treatments for steroid-resistant acute GvHD

## Key advantages of the Cymerus™ process

### SCALABILITY & CONSISTENCY

- ✓ Consistent product quality – single donor overcomes regulatory concerns
- ✓ Lower cost of goods on a per cell basis compared to conventional MSC products

### FEWER CELLS PER PATIENT

- ✓ 2 infusions per patient with CYP (compared to 8-12 for bone-marrow derived products)
- ✓ Greater convenience for patients and hospitals
- ✓ Lower costs incurred by healthcare system

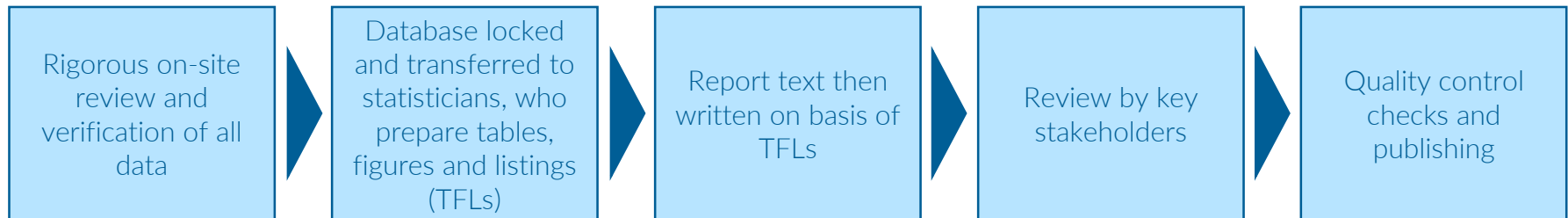
For more information  
on the Cymerus  
platform visit  
Cynata's website



## GvHD – Next Steps

- Preparation of a Clinical Study Report (CSR)

- Preparation of the CSR is a complex and time consuming process



- CSR production now at an advanced stage – expect to complete ahead of industry-standard timelines
- Submission to Fujifilm per terms of the license option agreement – 90 day decision period
- Further meeting planned with PMDA (Japanese regulatory authority) early in 2019
  - Initial highly successful meeting took place in August 2018
- Expect to commence Phase 2 clinical trials during 2019
  - Trials planned to occur in Japan and rest of world (including Australia, Europe and USA)

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## Critical Limb Ischemia (CLI)

Overview of Cynata's approach

# Critical Limb Ischemia

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Cynata has prioritised Critical Limb Ischemia as its next indication to take to clinical trials

## ABOUT CLI

- Critical Limb Ischemia (CLI) is an **advanced stage of peripheral artery disease (PAD)** – caused by a narrowing of the arteries in the limbs
- Severely impaired blood flow causes pain, ulceration and gangrene
- **Often results in amputation** and ~25% of CLI patients who are unable to undergo vascular surgery die within a year of diagnosis

## RATIONALE FOR PURSUING CLI

- MSCs may offer an effective treatment option for CLI, to restore blood flow and reduce inflammation
- Improvements in amputation-free survival shown in clinical trials with MSCs
- Cymerus MSCs have demonstrated **compelling efficacy in a preclinical study**
- **Development timeline is relatively rapid**, involving relatively small trials
- Peak net **commercial opportunity** in US is estimated to be \$700-900m p.a.<sup>1</sup>

# Scientific support and industry enthusiasm are high for MSCs in CLI

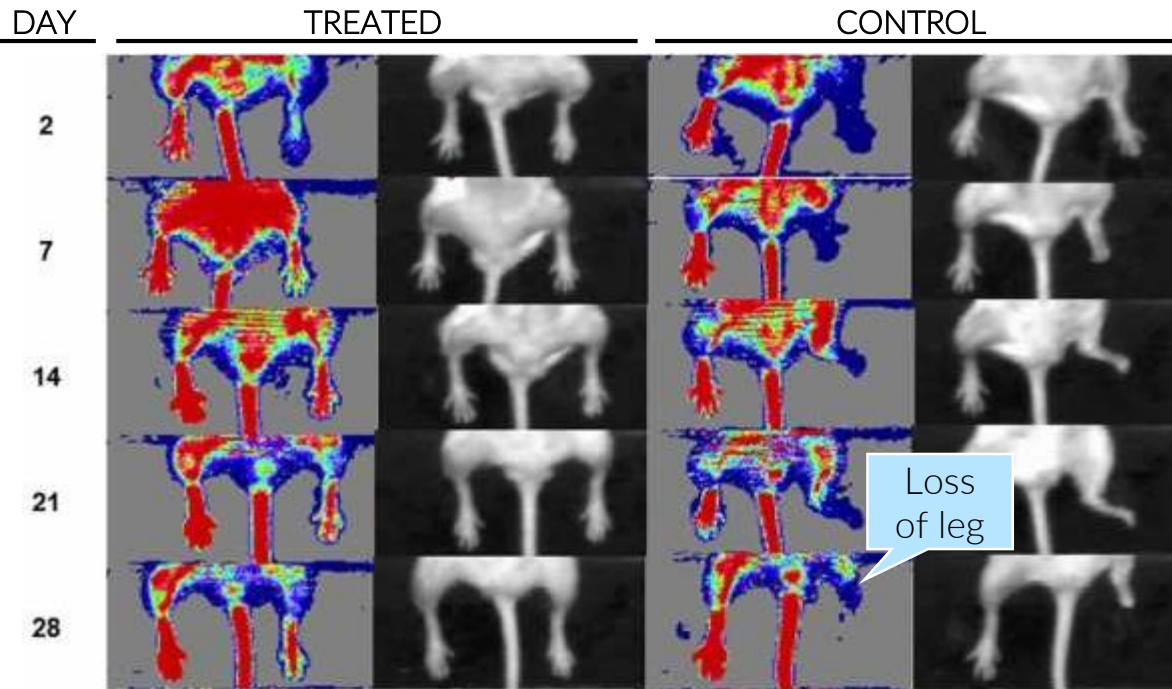
## Physician Perspective

Scientific Rationale	Mechanistic Rationale / Supporting Data	<ul style="list-style-type: none"> <li>Small clinical MSC studies have shown amputation free survival (AFS) and ankle brachial index (ABI) endpoint benefit</li> </ul>	<p><i>“If MSCs successfully dampen immune response and promote blood vessel growth, they could prevent the need for amputation.”</i></p>
	Field Enthusiasm	<ul style="list-style-type: none"> <li>Experts believed localised delivery of MSCs had the potential to improve CLI</li> <li>Stempeutics, Pluristem, and Rexgenero are sponsoring ongoing MSC CLI trials</li> </ul>	<p><i>“There has been a lot of interest in the field as well as industry regarding MSCs to address CLI. It makes a lot of sense.”</i></p>
Clinical Feasibility	Ease of Clinical Development	<ul style="list-style-type: none"> <li>Pivotal trials may last 1-2 years and require 50-100 revascularisation-ineligible patients</li> <li>Endpoints include AFS and ABI, as well as ulcer healing and pain<sup>1</sup> (6 – 12 mo.)</li> </ul>	<p><i>“CLI trials are relatively straight forward, with easy-to-assess endpoints like ulcer healing. I think MSC’s would show benefit in a well-powered trial.”</i></p>
	Probability of Success	<ul style="list-style-type: none"> <li>Endpoints in CLI are considered to be relatively straightforward</li> </ul>	<p><i>“Recruitment is not going to be a barrier, especially if targeting patients known to be ineligible for revascularization.”</i></p>

Source: Compagna. Stem Cells Int. 2015; 2015: 931420; Dash. Rejuvenation Res. 2009 Oct;12(5):359; Lasala. Angiology. 2010 Aug;61(6):551; UptoDate; clinicaltrials.gov; KOL Interviews; ClearView Analysis <sup>1</sup> Ulcer healing and pain are less common, but are utilized in Stempeutics’ ongoing trial as the sole primary endpoints. AFS: Amputation-free Survival. ABI: Ankle-brachial index. RV: revascularization.

# Critical Limb Ischemia clinical study follows excellent results from an earlier pre-clinical study

Mice dosed with Cymerus MSCs experienced significantly improved outcomes when compared with control group



Animals treated with Cymerus MSCs experienced improved blood flow ( $p < 0.006$ ) and faster blood flow recovery ( $p < 0.001$ ) when compared to the control group treated with saline

Results published in a peer reviewed journal



*Cytotherapy is a peer-reviewed medical journal covering the areas of cell biology and immunology, including cytokines, cytotherapy, and molecular therapy*

## Update on CLI clinical trial plans

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Cymerus MSC product for CLI will be known as CYP-002

Draft clinical trial protocol synopsis is now in place

- Randomised, double-blind, Phase 2 study in adults with CLI

Current working assumptions:\*

- Primary endpoint will be Amputation Free Survival after 6 months
- 3 groups: (i) low dose CYP-002; (ii) high dose CYP-002; (iii) placebo
- Approximately 30 patients per group

\* Subject to change based on input from external experts

CRO selection process now ongoing

- Once CRO is engaged, further input on protocol design will be sought from relevant key opinion leaders and decision will be taken on where trial will be conducted

Expect trial to commence during 2019



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## Pre-Clinical Pipeline

Overview of Cynata's activities



## Purpose of the pre-clinical program

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Pre-clinical studies are intended to provide a rational basis for investigating the potential safety and efficacy of an experimental drug in a particular disease indication(s)

### Demonstrate potential of MSCs

- MSCs have already shown promising therapeutic potential in a wide range of pre-clinical models (as well as in human patients)

### Validate Cymerus technology









- Cynata has sought to collaborate with leading academic institutions and experts in various therapeutic areas to validate the potential clinical utility of the Cymerus technology

### Cost-effective

- An important element has been to leverage expenditure as much as possible through grants and joint projects

The successful outcomes from these studies, combined with the clinical data in GvHD have facilitated a number of ongoing commercial discussions in these and other clinical indications

# Pre-clinical study programme - overview

Disease target area	Partner	Pre-clinical trials started	Proof of concept completed	Key highlights	*Global market opportunity
ARDS		✓		Study to commence to evaluate effectiveness of Cymerus MSCs in sheep with ARDS in association with the Prince Charles Hospital in Brisbane.	US\$2.5bn by 2018 <sup>2</sup>
Heart attack		✓	✓	Pre-clinical trials suggest Cymerus MSCs may have the potential to restore cardiac function and reduce scar size after a heart attack	US\$18.2bn by 2019 <sup>3</sup>
Brain Cancer / Glioblastoma		✓		Research collaboration in genetically modified MSCs in cancer: involves modifying stem cells to target cancer	US\$3.3bn by 2024 <sup>4</sup>
Diabetic Wounds		✓	✓	Independent study by CRC for Cell Therapy Manufacturing received positive data which demonstrates the efficacy of Cymerus MSCs in a preclinical model of diabetic wounds	US\$4.9bn by 2024 <sup>5</sup>
Coronary Artery Disease		✓		Research collaboration for the development of MSC therapies to treat coronary artery disease	US\$22.5bn by 2021 <sup>6</sup>
Asthma		✓	✓	Cymerus MSCs demonstrated significant beneficial effects on three key components of asthma: airway hyper-responsiveness, inflammation and airway remodelling	US\$25.6bn by 2024 <sup>1</sup>
Cytokine Release Syndrome		✓	✓	Pre-clinical model demonstrating Cymerus MSCs significantly ameliorate the effects of Cytokine Release Syndrome, a potentially severe and life-threatening adverse reaction to cancer immunotherapy	US\$4.5bn by 2022 (CAR-T) <sup>7</sup>
Sepsis		✓		Development partnership with RCSI (Royal College of Surgeons in Ireland), one of the foremost health sciences research institutions in Europe, to investigate the utility of Cymerus MSCs in sepsis, the leading cause of death in ICU's	US\$5.9bn by 2026 <sup>8</sup>

Successful outcomes open many other disease targets potentially benefiting from MSCs

Notes

\*Reflects total global market opportunity for the relevant therapeutic category

1. Grand View Research, 2016); 2. Vasomune Therapeutics company announcement, 2018 3. GBI Research, 2013; 4. Global Data, 2016; 5. Transparency Market Research, 2018; 6. Smithers Apex, 2015 ; 7. Evaluate Pharma, 2017

# Pre-clinical programme—Acute Respiratory Distress Syndrome (ARDS)

Critical Care  
RESEARCH GROUP Study partner

  
Global market  
opportunity

~US\$2.5bn by  
2018<sup>1</sup>



Existing treatment  
options/products

- ARDS is an inflammatory process leading to build-up of fluid in the lungs and respiratory failure. Commonly occurs in previously healthy individuals, and it accounts for approximately 10% of all ICU admissions. There is no specific treatment; instead patients are managed with mechanical pulmonary support (ECMO)



Programme  
overview

- To investigate Cymerus MSCs as a treatment for ARDS in an animal model (sheep) with ARDS supported by ECMO, and to evaluate the effects on lung mechanics, blood flow, inflammation and lung injury, as well as safety



Summary of  
progress

- Programme commenced mid 2017 and is proceeding well



Current status

- Project on track. Results expected Q4 2018.



Next steps

- Determine most suitable commercial path following release of results

# Pre-clinical programme—Heart attack



Study partner



Global market opportunity

~US\$18.2bn by 2019<sup>1</sup>



Existing treatment options/products

- A heart attack is life-threatening event that occurs when a blood vessel supplying the heart itself is suddenly blocked completely, threatening to damage the heart muscle and its functions. Early treatment with clot dissolving medicines, but otherwise few medical interventions available



Programme overview

- The study aimed to determine the ability of Cymerus MSCs to repair the heart functionally and structurally after a heart attack in an animal model



Summary of progress

- Study was completed successfully in July 2018
- Cymerus MSC treatment improved recovery of cardiac function post heart attack compared to either placebo or bone marrow-derived MSCs (BM-MSCs)
- Cymerus MSC treatment also reduced left ventricular end-systolic diameter (LVESD) compared to either placebo or BM-MSCs. LVESD reduction is associated with lower risk of further cardiac events



Current status

- Programme completed



Next steps

- Expressions of interest being sought from potential partner companies

# Pre-clinical programme—Brain Cancer / Glioblastoma



Study partner



Global market opportunity

~US\$3.3bn by 2024<sup>1</sup>



Existing treatment options/products

- Glioblastoma is a type of brain cancer and is the most common type of malignant brain tumor in adults. Current treatment consists of surgery, radiotherapy, and chemotherapy. Notoriously difficult to treat



Programme overview

- Production and testing in an animal model of Cynata MSCs genetically engineered to produce compounds that have anticancer effects: a type of “Trojan horse”.



Summary of progress

- Programme completed in October 2018
- Genetically engineered Cymerus MSCs were successfully produced to express diagnostic and therapeutic anti-cancer agents
- Engineered Cymerus MSCs reduced the viability of both human glioblastoma cells and human melanoma cells, and slowed tumour progression in mice



Current status

- Further engineered MSC pipeline developments in planning stage



Next steps

- Determine most suitable commercial path following further pre-clinical studies

# Pre-clinical programme—Diabetic wounds



Study partner



Global market opportunity

~US\$4.9bn by 2024<sup>1</sup>



Existing treatment options/products

- Diabetic wounds are prevalent among the 400m+ diabetics globally and a significant opportunity exists to improve existing treatments and meet a growing unmet medical need



Programme overview

- Evaluation of cells from five different sources: Cymerus MSCs, bone marrow-derived MSCs, and MSCs derived from dental pulp, bone chips and gingival fibroblasts in a preclinical model of diabetic wounds (also known as diabetic ulcers), in conjunction with an active wound care dressing



Summary of progress

- Findings announced May 2018
- Cymerus MSCs resulted in significantly faster wound healing than bone marrow-derived MSCs



Current status

- Ongoing discussions with study partner (CRC-CTM) to commence a clinical trial



Next steps

- Grant funding for a clinical trial being explored with CRC-CTM and their collaborators

# Pre-clinical programme—Coronary Artery Disease



UNSW  
SYDNEY

Study partner



Global market  
opportunity

~US\$22.5bn by  
2021<sup>1</sup>



Existing treatment  
options/products

- CAD involves a narrowing of the coronary arteries due to a build-up of fatty deposits (plaque), also known as atherosclerosis, which reduces blood flow to the heart and the major cause of heart attack. Few medications treat CAD once it has developed



Programme  
overview

- Evaluation of methods to activate Cymerus MSCs to stimulate new blood vessel formation (angiogenesis) and improve blood supply to the heart in patients with CAD.



Summary of  
progress

- Programme commenced mid 2018 and is proceeding well



Current status

- Programme on track. Results expected Q2 2019.



Next steps

- Determine most suitable commercial path following release of results

# Pre-clinical programme—Asthma



MONASH University

Study partner



Global market  
opportunity

~US\$25.6bn  
by 2024<sup>1</sup>



Existing treatment  
options/products

- Chronic asthma is managed by steroid-type drugs (e.g. “puffers”). Severe, persistent, high-risk or difficult-to-control asthma is much more challenging to treat: this is the target patient population



Programme  
overview

- To test the effectiveness of Cymerus MSCs in an animal model of asthma, compared with effectiveness of bone marrow derived MSCs, and corticosteroids (+/- Cymerus MSCs)



Summary of  
progress

- Treatment with Cymerus MSCs caused significantly greater reduction of airway hyperresponsiveness, airway remodelling and fibrosis compared to corticosteroid treatment
- Combination therapy involving Cymerus MSCs and corticosteroids resulted in a pronounced synergistic effect, producing marked anti-inflammatory effects in addition to the benefits seen with Cymerus MSC treatment alone
- Data published in prestigious medical journal, Federation of American Societies for Experimental Biology



Current status

- Final phase of study wrapping up: histology analysis; route of administration
- Final results expected late 2018



Next steps

- In active discussions with potential partners to support progress to a clinical trial



# Pre-clinical programme—Cytokine Release Syndrome

University of  
Massachusetts  
Amherst

Study partner



Global market  
opportunity

~US\$4.5bn by  
2022 (CAR-T)<sup>1</sup>



Existing treatment  
options/products

- Immunotherapies e.g. CAR-T cells are very promising cancer treatments, however their use is often associated with potentially fatal adverse effects, most notably the cytokine release syndrome (CRS). The management of CRS is a challenging clinical problem and no one modality has been shown to be particularly effective



Programme  
overview

- Evaluate the effectiveness in a preclinical model of Cymerus MSCs to ameliorate the effects of CRS



Summary of  
progress

- Programme completed in September 2018
- Cymerus MSC shown to be effective in protecting against CRS in mouse models



Current status

- Programme completed



Next steps

- Expressions of interest being sought from potential partner companies active in immunotherapy product development

# Pre-clinical programme—Sepsis



Study partner



Global market opportunity

~US\$5.9b by 2026<sup>1</sup>



Existing treatment options/products

- Sepsis is the most common cause of death in Intensive Care Units despite management with antibiotics and supportive therapy. New therapies are urgently needed to address the huge unmet clinical need associated with sepsis.



Programme overview

- Evaluate the effectiveness of Cymerus MSCs to treat sepsis
- Programme costs highly leveraged through RCSI Strategic Industry Partnership Seed Fund



Summary of progress

- Programme commenced in July 2018 and is proceeding well



Current status

- Programme on track. Results expected Q1 2020.



Next steps

- Determine most suitable commercial path following release of results



5 Outlook and Next Steps

## Key focus areas for next 12 months

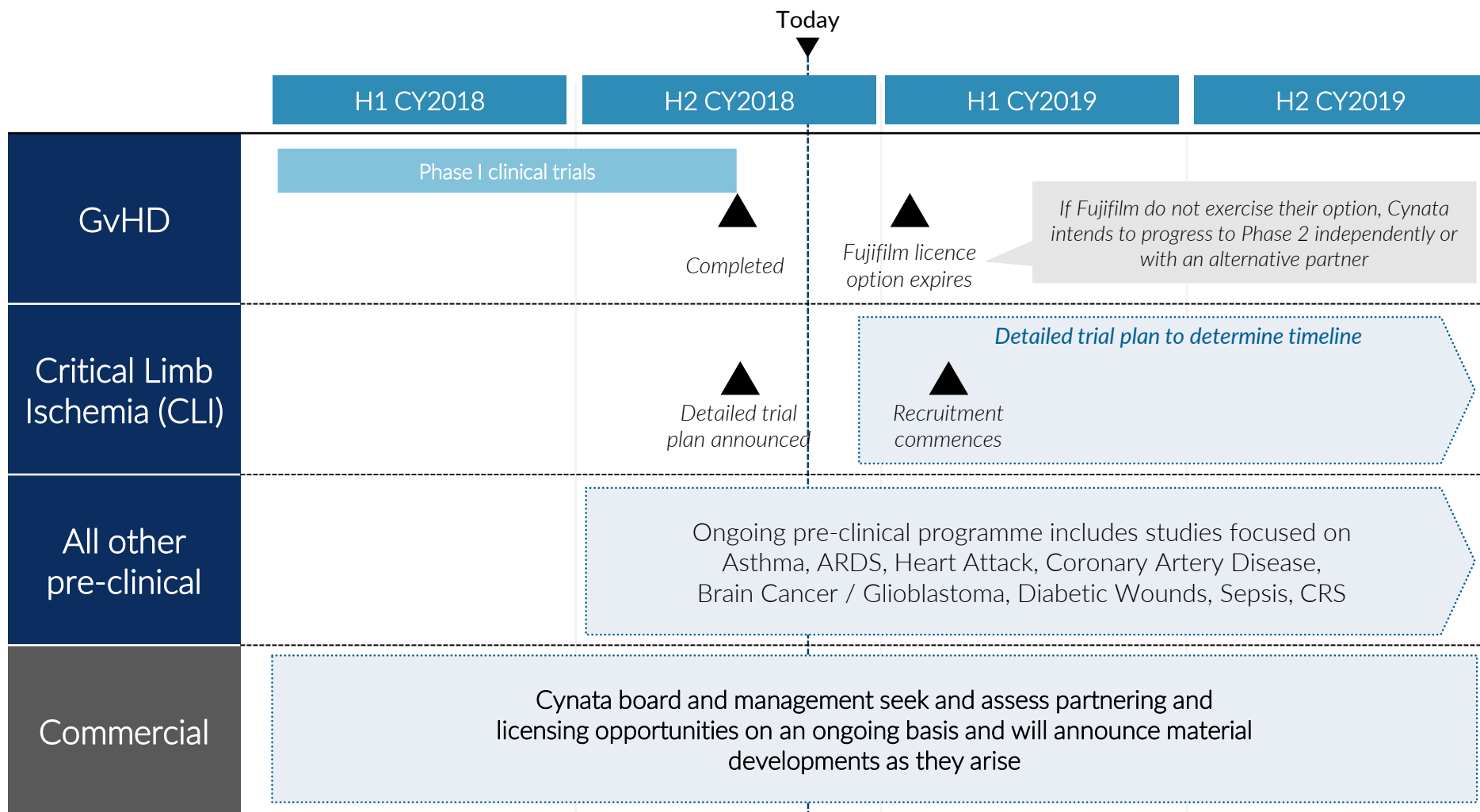
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- ❖ Commence Phase II GvHD trial, with or without Fujifilm (noting that, while Fujifilm has not yet exercised its license option, it has, in association with Cynata, commenced preparations for clinical trials and product manufacture)
- ❖ Commence Phase II trial in Critical Limb Ischemia
- ❖ Advance commercial discussions for multiple indications & geographies
- ❖ Continue to selectively progress the highest potential target areas from our pre-clinical programme

Cynata has had a strong 12 months, with excellent operational and commercial progress. A chart of Cynata's share price performance appears on slide 40.

The Cynata team, management and Board are excited about the next 12 months, with significant operational and commercial milestones expected.

# Key upcoming milestones





## Appendix

### Corporate Overview

## Investment Highlights

- **Scalable, world-first technology:** Cymerus platform overcomes inherent challenges of other production methods and enables mass-production of therapeutic MSCs
- **Phase II ready:** Excellent Phase I results provide validation of Cynata's Cymerus platform; Cynata well positioned to progress to Phase II in GvHD and other indications
- **Cardiovascular disease identified as priority indication area for clinical programme:** Planning for Phase II in Critical Limb Ischemia has commenced; trial expected to begin in 2019
- **Attractive licensing-driven business model:** Fujifilm licence option for GvHD potentially worth over US\$60m, plus royalties
- **Valuable market opportunity:** Estimated US\$1.7bn revenue opportunity for MSC products for GvHD and CLI alone
- **Well-funded to progress clinical programme:** Cash balance of \$10.9m<sup>1</sup>



# Corporate overview

## Company profile

Cynata Therapeutics is an Australian stock exchange listed clinical-stage biotechnology company developing disruptive regenerative medicines.

## Financial information

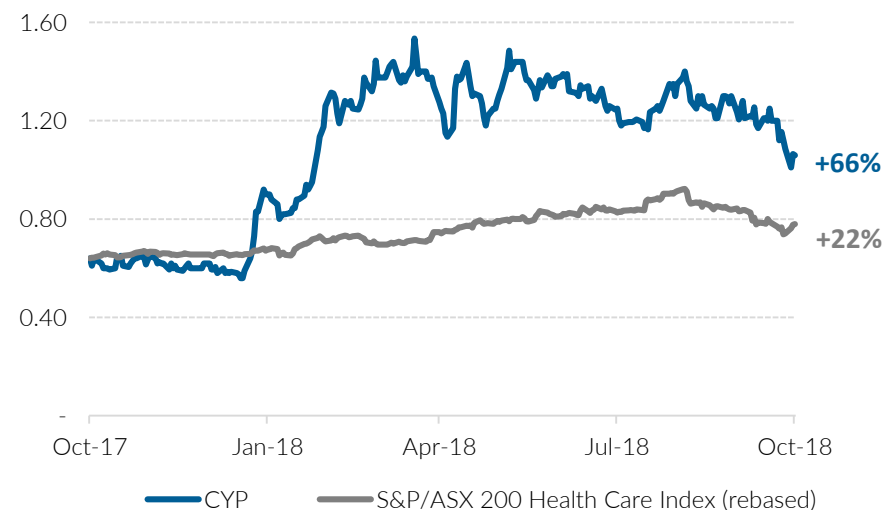
Share price (31-Oct-18)	A\$1.06
52 week low / high	A\$0.56 / A\$1.58
Shares on issue <sup>1</sup>	100.8m
<b>Market capitalisation</b>	<b>A\$107m</b>
Cash (as at 30-Sep-18)	A\$10.9m
Debt (as at 30-Sep-18)	-
<b>Enterprise value</b>	<b>A\$96m</b>

Source: IRESS

Notes:

- Excludes 6.0m unquoted options with exercise prices ranging from \$0.53 to \$1.50 and expiry dates between 22-Feb-2019 and 4-Aug-2020 (1m subject to vesting conditions)
- Represents shareholding if all options held by the Board and Management (total of 2.7m) are exercised

## Share price performance (last 12 months, A\$)



## Top shareholders

Shareholder	
Fidelity International	9.4%
Fujifilm Corporation	8.0%
Board and Management	6.1%
Board and Management (fully diluted) <sup>2</sup>	8.6%



# Cynata has the only platform in the world to produce commercial quantities of Mesenchymal Stem Cells from a single source: iPSCs

## Today's on-market MSC manufacturing solution has a number of shortcomings

### REGULATORY ISSUES

- × Sourcing cells from multiple donors leads to **variability in the sourced cells**, which is a **major regulatory hurdle**

### REDUCED EFFICACY

- × **Massive cell expansion** is required to create enough cells for therapeutic use, which may **result in reduced efficacy**

Surgery required to source MSCs from bone marrow



Multiple donors



Complex surgery



Cell expansion



## Patented Cymerus Platform overcomes shortcomings

### ✓ CONSISTENT PRODUCT QUALITY

*Single donor overcomes regulatory concerns*

### ✓ MAINTAINED PRODUCT EFFICACY

*Cymerus overcomes need for excessive expansion*

For more information on the Cymerus platform visit Cynata's website



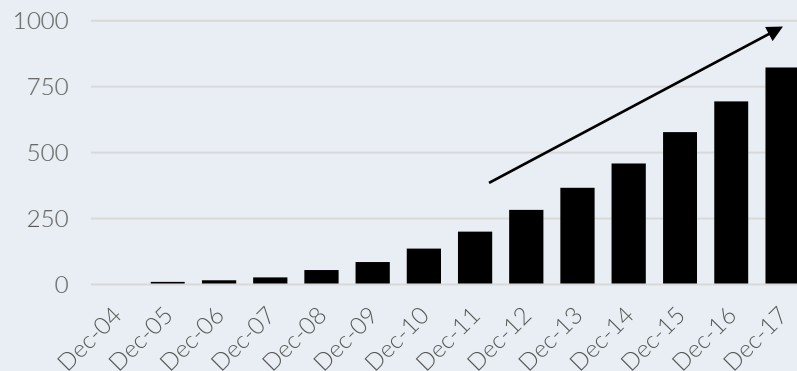
# MSCs are a highly potent form of stem cell attracting significant clinical interest – and in need of a scalable commercial solution

**Mesenchymal Stem Cells (MSCs) are believed to play a vital role in repair and regeneration**

- ✓ Modulator of the immune system
- ✓ Secrete bioactive molecules and have immunosuppressive and immunoregulatory properties

**Over 850 clinical trials investigating the efficacy of MSCs in treating diseases have been initiated<sup>1</sup>**

Number of MSC clinical trials (cumulative)



- ✓ MSCs were approved for use as a therapeutic treatment in Japan in September 2015 and Europe in March 2018

**Global commercial potential, with multiple target areas potentially benefiting from MSC treatment**



Diabetes complications



Diabetic foot ulcers



GvHD



Fistula



Asthma



Acute respiratory distress syndrome



Brain cancer / Glioblastoma



Osteoarthritis



Critical limb ischemia



Crohn's disease



Heart attack

# Cell therapy is an active market attracting big pharma M&A interest

USD  
307M



Acquired by



March 2015

- Enables Fujifilm to combine technologies with Cellular Dynamics to develop new iPSC based cell therapies
- Founder of Cellular Dynamics also founded Cynata

USD  
379M



Acquired by



February 2016

- Enables Astellas to establish a leading position in cell therapy
- Ocata CEO prior to acquisition was Paul Wotton, current Chairman of Cynata

USD  
628M



Acquired by



January 2018<sup>1</sup>

- Extends existing partnership between Takeda and TiGenix to develop and commercialize Cx601 (darvadstrocel)
- TiGenix was the first company to receive approval for an MSC therapy in Europe

# Globally experienced board and management team



**Dr Paul Wotton**  
Chairman

Former CEO of Ocata Therapeutics (NASDAQ: OCAT) managing it through a take-over by Astellas Pharma, in a US\$379m transaction

Previous executive roles with Antares Pharma Inc. (NASDAQ: ATRS), Topigen Pharmaceuticals and SkyePharma

Founding CEO, Sigilon Therapeutics; member of the boards of Vericel Corporation and Veloxis; past Chairman of the Emerging Companies Advisory Board of BIOTEC Canada

Expertise running and monetising Ocata Therapeutics, acquired by Astellas



**Dr Ross Macdonald**  
Managing Director Chief Executive Officer

30 years' experience and a track record of success in pharmaceutical and biotechnology businesses

Previous senior management positions with Hatchtech, Sinclair Pharmaceuticals, Connetics Corporation (Palo Alto, CA), and Stiefel Laboratories, the largest independent dermatology company in the world and acquired by GSK in 2009 for £2.25b

Track record of success in pharmaceutical and biotechnology businesses



**Dr Stewart Washer**  
Non-Executive Director

20+ years of CEO and Board experience in medical technology, biotech and agrifood companies

Chairman of Orthocell Ltd and Minomic International

Previously CEO roles with Calzada (ASX:CZD), Phylogica (ASX:PYC) and Celentis and managed the commercialisation of intellectual property from AgResearch in New Zealand with 650 Scientists and \$130m revenues

Deep experience growing companies as CEO and on the Board



**Dr John Chiplin**  
Non-Executive Director

Significant international experience in the life science and technology industries

Recent transactions include US stem cell company Medistem (acquired by Intrexon), Arana (acquired by Cephalon), and Domantis (acquired by GSK)

Was head of the \$300M ITI Life Sciences investment fund in the UK and his own investment vehicle, Newstar Ventures

Overseen and managed a broad range of life sciences transactions



**Mr Peter Webse**  
Non-Executive Director  
Company Secretary

+25 years' company secretarial experience

Managing Director of Platinum Corporate Secretariat Pty Ltd, a company specialising in providing company secretarial, corporate governance and corporate advisory services

25+ years company secretarial and management experience



**Dr Kilian Kelly**  
Vice President, Product Development

15 years' experience in pharmaceutical/ biotechnology research and development, in both commercial and academic settings

Previous appointments include Senior Director, Drug Development at Biota Pharmaceuticals (NASDAQ: BOTA), Vice President, Regulatory and Clinical at Mesoblast Limited (ASX:MSB)

Academic and commercial excellence, extensive relevant management experience

Thank you for your attention

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