

# **CellPryme-A Investor Presentation**

MELBOURNE Australia, 27 September 2022 – Prescient Therapeutics (ASX: PTX), a clinical stage oncology company developing personalised therapies to treat cancer, attaches a copy of the investor presentation to launch CellPryme-A, Prescient Therapeutics' newest cell therapy enhancement platform.

CellPryme-A is an adjuvant therapy provided to patients that boosts tumour killing and host survival of conventional CAR-T cell therapies. It achieves this by overcoming the tumour's hostile microenvironment and significantly enhancing the expansion CAR-T cells within the host. CellPryme-A is now ready for clinical trials and collaboration with third parties seeking to boost the effectiveness of their cell therapy programs, especially those in solid tumours.

CEO and Managing Director, Steven Yatomi-Clarke, and Senior Vice President of Scientific Affairs, Dr Rebecca Lim, will be hosting a special investor briefing on CellPryme-A to be held at **12.00pm** (AEST) on Tuesday, 27 September 2022.

To register for the investor briefing, visit this page:

Register for the briefing here

- Ends -

To stay updated with the latest company news and announcements, <u>please update your details</u> on our investor centre.

### **About Prescient Therapeutics Limited (Prescient)**

Prescient Therapeutics is a clinical stage oncology company developing personalised medicine approaches to cancer, including targeted and cellular therapies.

### **Cell Therapies**

**OmniCAR:** is a universal immune receptor platform enabling controllable T-cell activity and multi- antigen targeting with a single cell product. OmniCAR's modular CAR system decouples antigen recognition from the T-cell signalling domain. It is the first universal immune receptor allowing post- translational covalent loading of binders to T-cells. OmniCAR is based on technology licensed from Penn; the SpyTag/SpyCatcher binding system licensed from Oxford University; and other assets.

The targeting ligand can be administered separately to CAR-T cells, creating on-demand T-cell activity post infusion and enables the CAR-T to be directed to an array of different tumour antigens. OmniCAR provides a



method for single-vector, single cell product targeting of multiple antigens simultaneous or sequentially, whilst allowing continual re-arming to generate, regulate and diversify a sustained T-cell response over time.

Prescient is developing OmniCAR programs for next-generation CAR-T therapies for Acute Myeloid Leukemia (AML); Her2+ solid tumours, including breast, ovarian and gastric cancers; and glioblastoma multiforme (GBM).

CellPryme-M: Prescient's novel, ready-for-the-clinic, CellPryme-M technology enhances adoptive cell therapy performance by shifting T and NK cells towards a central memory phenotype, improving persistence, and increasing the ability to find and penetrate tumours. CellPryme-M is a 24-hour, non-disruptive process during cell manufacturing. Cell therapies that could benefit from additional productivity in manufacturing or increased potency and durability in-vivo, would be good candidates for CellPryme-M.

CellPryme-A: CellPryme-A is an adjuvant therapy designed to be administered to patients alongside cellular immunotherapy to help them overcome a suppressive tumour microenvironment. CellPryme-A significantly decreases suppressive regulatory T cells; increases expansion of CAR-T cells in vivo; increases tumour penetration of CAR-T cells. CellPryme-A improves tumour killing and host survival of CAR-T cell therapies, and these benefits are even greater when used in conjunction with CellPryme-M pre-treated CAR-T cells.

### Targeted Therapies

PTX-100 is a first in class compound with the ability to block an important cancer growth enzyme known as geranylgeranyl transferase-1 (GGT-1). It disrupts oncogenic Ras pathways by inhibiting the activation of Rho. Rac and Ral circuits in cancer cells, leading to apoptosis (death) of cancer cells. PTX- 100 is believed to be the only GGT-1 inhibitor in the world in clinical development. PTX-100 demonstrated safety and early clinical activity in a previous Phase 1 study and recent PK/PD basket study of hematological and solid malignancies. PTX-100 is now in a Phase 1b expansion cohort study in T cell lymphomas, where it has shown encouraging efficacy signals and safety.

PTX-200 is a novel PH domain inhibitor that inhibits an important tumour survival pathway known as Akt, which plays a key role in the development of many cancers, including breast and ovarian cancer, as well as leukemia. Unlike other drug candidates that target Akt inhibition, PTX-200 has a novel mechanism of action that specifically inhibits Akt without non-specific kinase inhibition effects. This highly promising compound is currently in a Phase 1b/2 trial in relapsed and refractory AML, where it has resulted in 4 complete remissions so far. PTX-200 previously generated encouraging Phase 2a data in HER2-negative breast cancer and Phase 1b in recurrent or persistent platinum resistant ovarian cancer.

The Board of Prescient Therapeutics Limited has approved the release of this announcement.

Find out more at www.ptxtherapeutics.com or connect with us via Twitter @PTX\_AUS and LinkedIn.

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### **Disclaimer and Safe Harbor Statement**

Certain statements made in this document are forward-looking statements within the meaning of the safe harbor provisions of the United States Private Securities Litigation Reform Act of 1995. These forward-looking statements are not historical facts but rather are based on the current expectations of Prescient Therapeutics Limited ("Prescient" or the "Company"), their estimates, assumptions, and projections about the industry in which Prescient operates. Material referred to in this document that use the words 'estimate', 'project', 'intend', 'expect', 'plan', 'believe', 'guidance', and similar expressions are intended to identify forward-looking



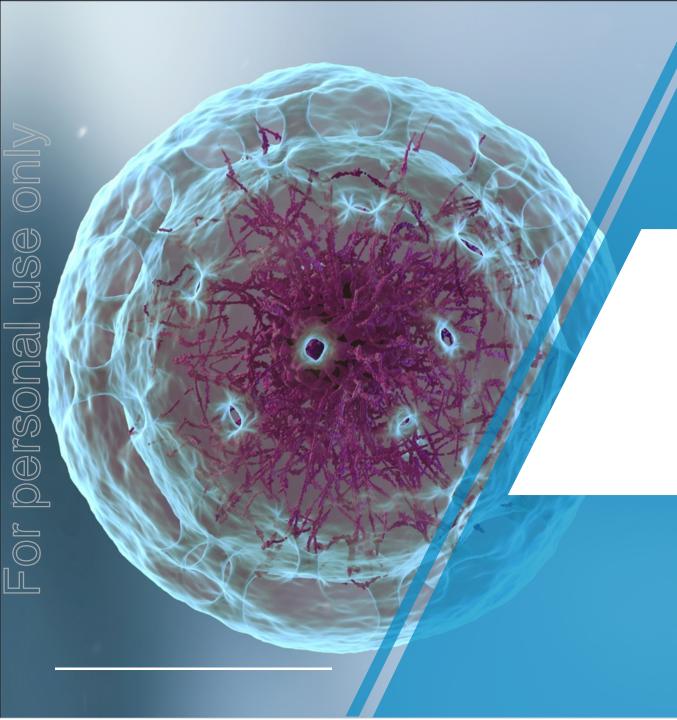
statements and should be considered an at-risk statement. These forward-looking statements are not a guarantee of future performance and involve known and unknown risks and uncertainties, some of which are beyond the control of Prescient or which are difficult to predict, which could cause the actual results, performance, or achievements of Prescient to be materially different from those which may be expressed or implied by these statements. These statements are based on our management's current expectations and are subject to a number of uncertainties and risks that could change the results described in the forward-looking statements. Risks and uncertainties include, but are not limited to, general industry conditions and competition, general economic factors, global pandemics and related disruptions, the impact of pharmaceutical industry development and health care legislation in the United States and internationally, and challenges inherent in new product development. In particular, there are substantial risks in drug development including risks that studies fail to achieve an acceptable level of safety and/or efficacy. Investors should be aware that there are no assurances that results will not differ from those projected and Prescient cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of Prescient only as of the date of this announcement. Prescient is not under a duty to update any forwardlooking statement as a result of new information, future events or otherwise, except as required by law or by any appropriate regulatory authority.

Certain statements contained in this document, including, without limitation, statements containing the words "believes," "plans," "expects," "anticipates," and words of similar import, constitute "forward-looking statements." Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of Prescient to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among others, the following: the risk that our clinical trials will be delayed and not completed on a timely basis; the risk that the results from the clinical trials are not as favourable as we anticipate; the risk that our clinical trials will be more costly than anticipated; and the risk that applicable regulatory authorities may ask for additional data, information or studies to be completed or provided prior to their approval of our products. Given these uncertainties, undue reliance should not be placed on such forward-looking statements. The Company disclaims any obligation to update any such factors or to publicly announce the results of any revisions to any of the forward-looking statements contained herein to reflect future events or developments except as required by law.

This document may not contain all the details and information necessary for you to make a decision or evaluation. Neither this document nor any of its contents may be used for any other purpose without the prior written consent of the Company.

### **Supplemental COVID-19 Risk Factors**

Please see our website: Supplemental COVID-19 Risk Factors





Unveiling



Adjuvant for enhancing cell therapies

Prescient Therapeutics Limited (ASX: PTX)

# **CellPryme-A Executive Summary**





# ADJUVANT PLATFORM TO ENHANCE CELL THERAPIES

- Current gen and next gen
- Complementary to CellPryme-M & OmniCAR



# **BREAKS DOWN HOSTILE TME**

- Two-thirds less intratumord Tregs
- Increases CAR-T cell penetration into tumours



IMPROVES TUMOUR KILLING AND SURVIVAL



BOOSTS CAR-T
EXPANSION IN VIVO



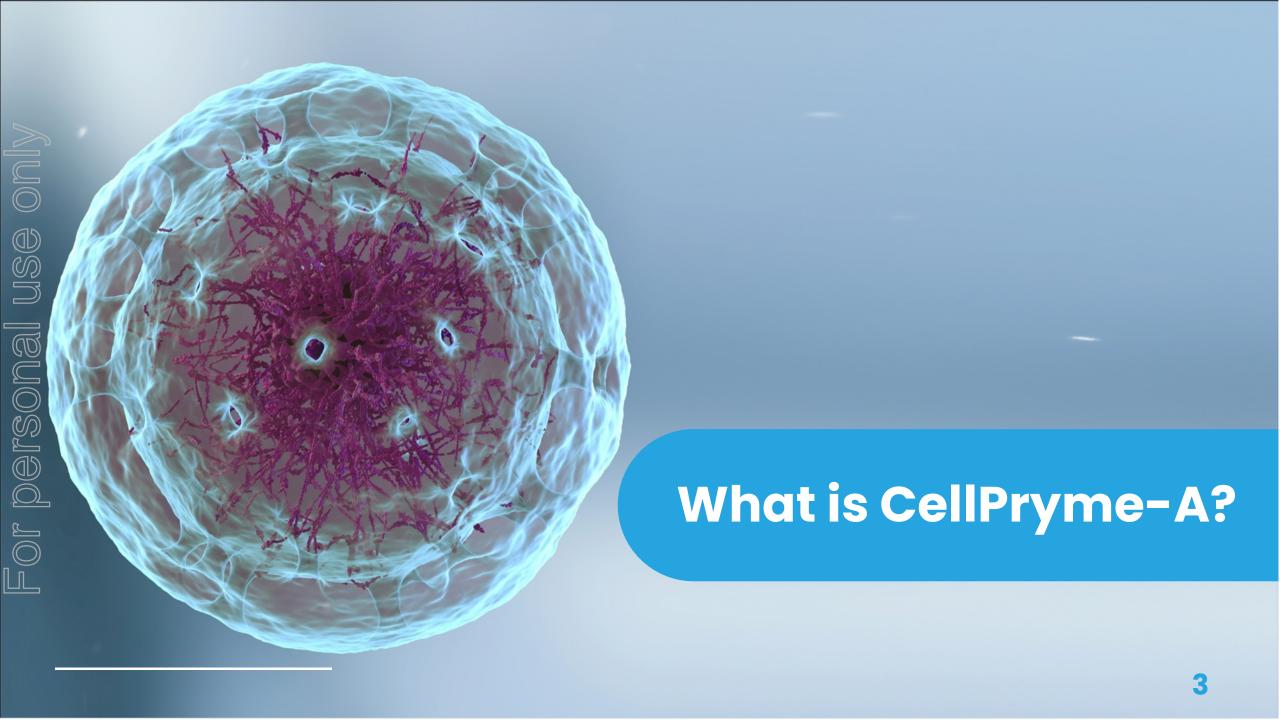
# READY FOR CLINICAL TESTING

GMP material ready

# **DEVELOPMENT OPPORTUNTIES**



- PTX & 3<sup>rd</sup> party programs
- Use with any existing cell therapy for solid tumours



# **Introducing CellPryme-A**



Dersonal use

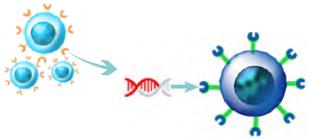
CellPryme-A is an adjuvant provided to patients that **improves the function** of cellular therapies by combating the **hostile tumour microenvironment (TME)** 

# The CAR-T process





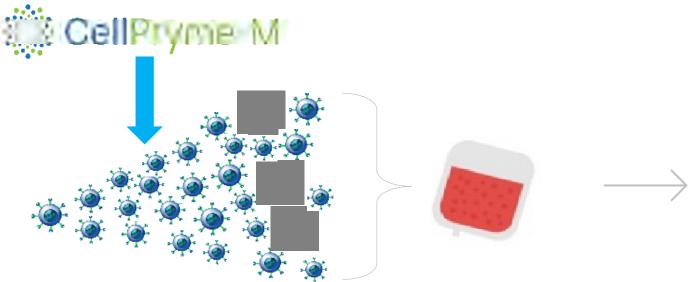


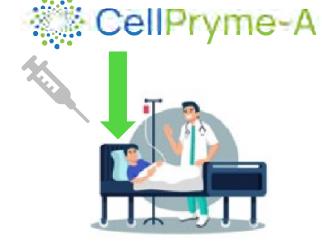


Blood is collected from the patient

T-Cells are isolated

T-Cells are genetically altered to have cancer-recognising receptors (CARs)





CAR-T cells are administered to the patient

# Complementary cell therapy enhancement platforms









- Produces longer lasting, more "youthful" CAR-T cells
- Doubles helper T cells
- Doubles tumour control
- More chemokine receptors for locating tumours



# ADJUVANT THERAPY

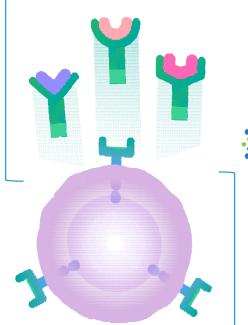
- Overcomes hostile TME
- Reduces Tregs
- Increases expansion of CAR-T cells in vivo
- Doubles penetration of CAR-T cells into tumours

# **CellPryme Complements OmniCAR**





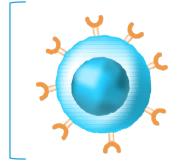
Multi-targeting
 Redirection
 Control & safety
 Any target; any cell





Process that produces a better <u>cell type</u>

- Persistence
- Trafficking



Next generation Cell therapies Current generation cell therapies





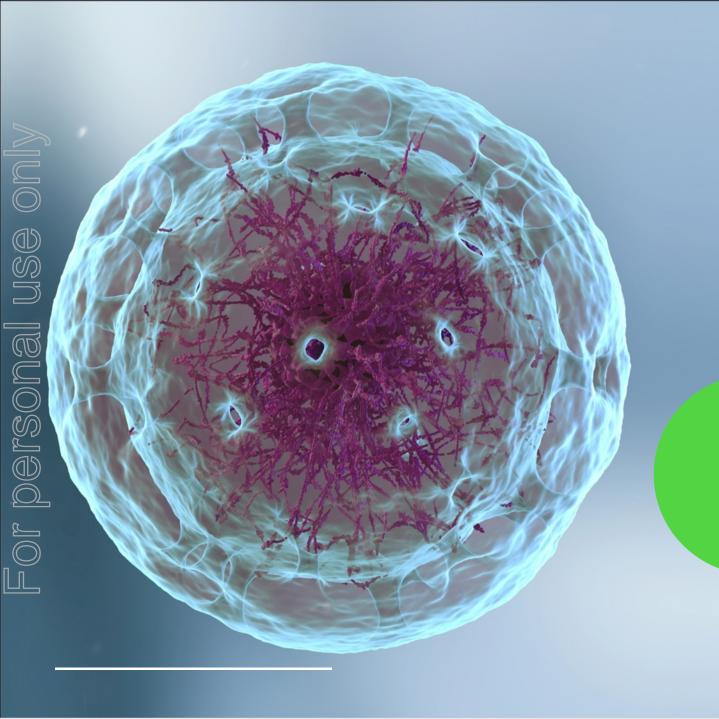
# Adjuvant therapy

- Reduces Tregs
- Primes TME for cell therapy
- Boosts CAR-T cell expansion in vivo

# Platforms to overcome CAR-T's key challenges



	Challenge	@ OmniCAR	:: CellPryme	
Safety / Control	No control post infusion	$\checkmark$	-	
Targeting	Difficulties with targeting, antigen heterogeneity	$\checkmark$	-	Safe
Escape	Difficulties with mutating antiger	ns 🗸	-	Effective
Production efficiency	Cost prohibitive & slow	$\checkmark$	-	Sustainable
Exhaustion	Cells run out of steam	$\checkmark$	$\checkmark$	Affordable
Trafficking	Cells cannot find their way	$\checkmark$	$\checkmark$	
Tumor penetrance	Protective layer around tumor	$\checkmark$	<b>√</b> ✓	Enduring
Tumor microenvironment	Suppresses immune cells	$\checkmark$	$\checkmark\checkmark$	

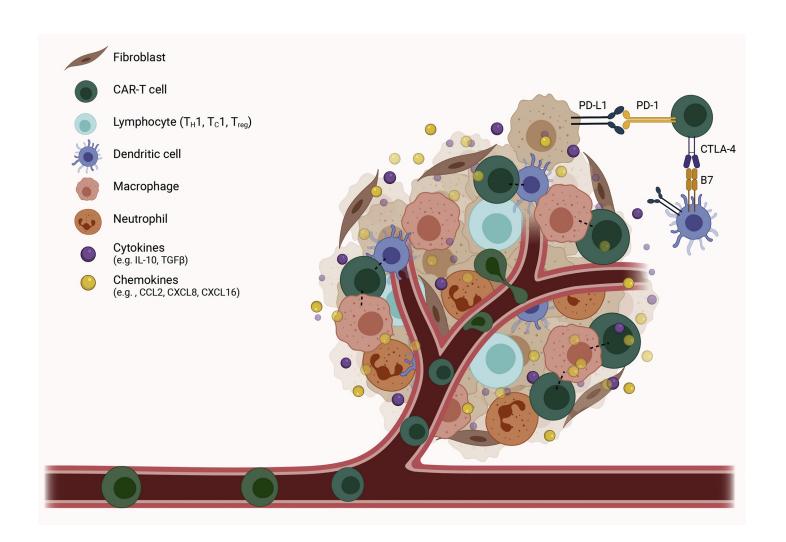


# Overcoming the tumour's hostile microenvironment

# The hostile Tumour Microenvironment (TME)



- TME is the **complex ecosystem** surrounding solid tumours
- Protects and nurtures the cancer
  - Grows faster and spreads
- Tumours and their TME interact with each other
- Acts as a **protective** "force field" that bluntens the effectiveness of cancer therapies



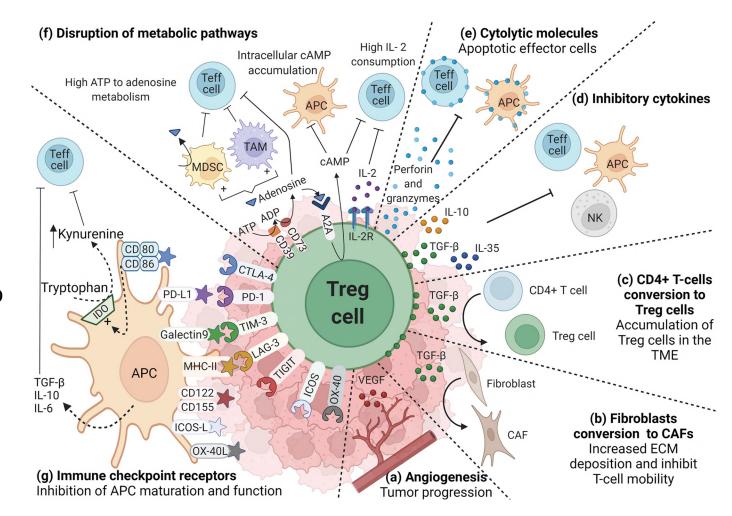
# Treg cells are central players in the TME

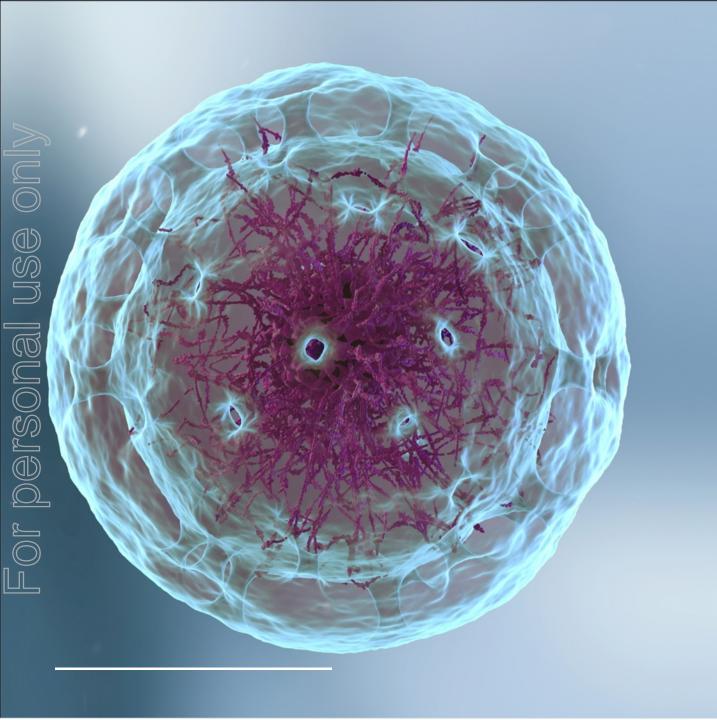


Tregs are immunosuppressive cells in the TME (i.e. suppresses the immune response)

- Causes T cell exhaustion
- Causes T cell death
- Produces cytokines that cause the tumour to go "cold"
- Impairs NK cell function

Reducing Tregs is key to successful CAR-T therapy

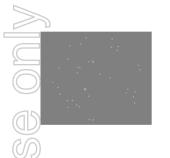




Compelling data

# **Summary of CellPryme-A effects**





**Boosts tumour killing** by conventional CAR-T cells



**Improved survival** 



Reduces problematic

Treg cells by 66%



Dramatically increases

# **CAR-T cell expansion** within host

- 2x ↑ CAR-T cell expansion
- 9x↑ Cytotoxic T cells
- 6x ↑ Helper T cells

with CellPryme-M



Increases ability of T cells to

# penetrate solid tumours

- 4x ↑ Cytotoxic T cells
- 3x ↑ Helper T cells

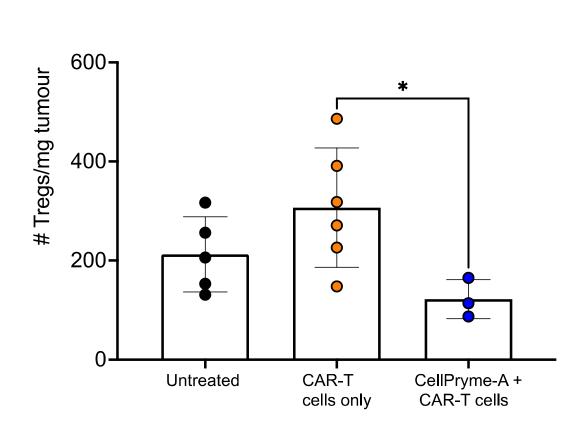


Synergises with CellPryme-M

for even greater benefits

# **CellPryme-A significantly decreases problematic Tregs in tumours**





**CellPryme-A significantly reduced** intra-tumoural Tregs by two-thirds

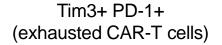
Conventional Her2 CAR-T cell therapy followed by CellPryme-A adjuvant therapy

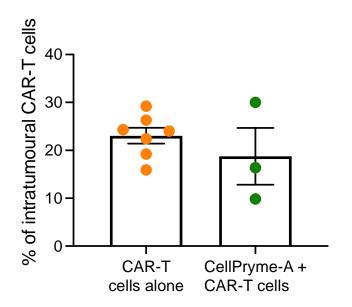
<sup>\*</sup>p<0.05; Kruskal-Wallis one-way ANOVA

# CellPryme-A works via a different mechanism of action to CellPryme-M

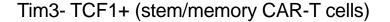


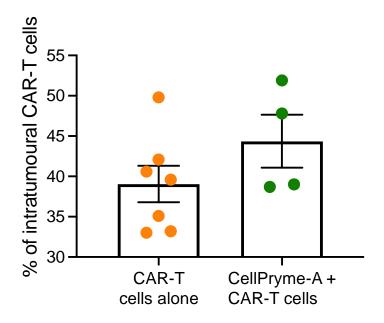
CellPryme-A has no significant impact on the T cell phenotype or markers of exhaustion





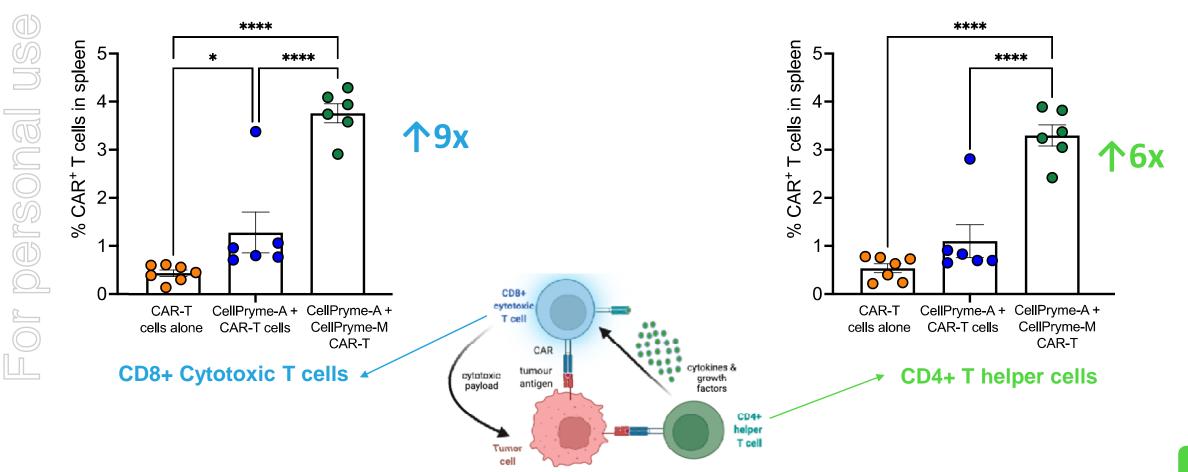
Dersonal





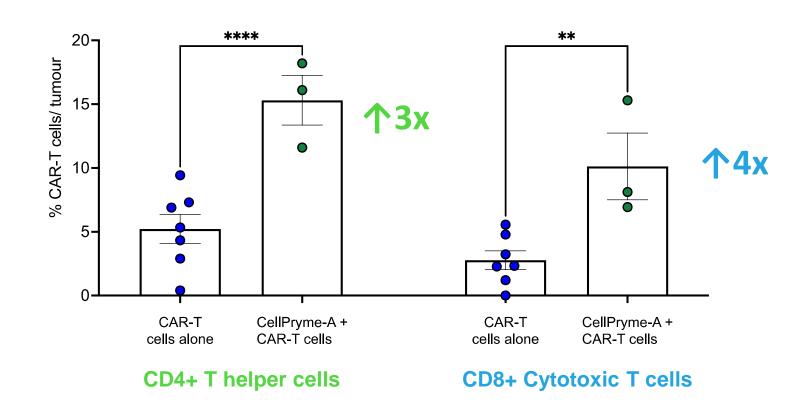
# CellPryme-A synergises with CellPryme-M to dramatically expand CAR-T cells *in vivo*





# **CellPryme-A significantly increases CAR-T cell penetration into tumours**

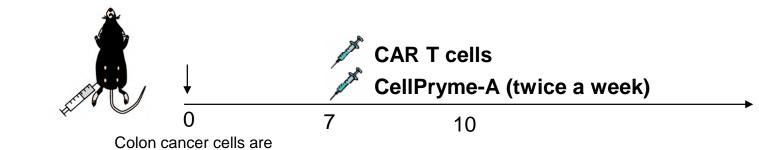




<sup>\*\*</sup>p<0.01, \*\*\*\*p<0.0001, Mann-Whitney test
Tumours collected from parallel cohort of animals at Day 21

# **CellPryme-A** significantly boosts CAR-T efficacy



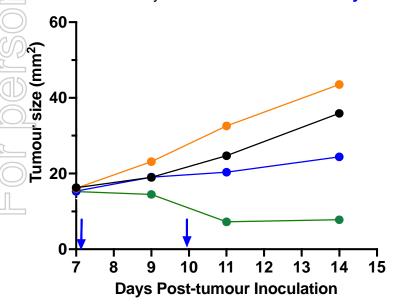


# **Experimental end point**

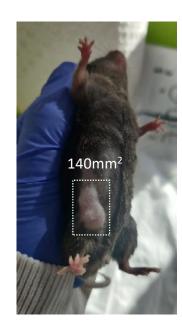
Tumour size > 150 mm<sup>2</sup> or  $\leq$  28 days unless other humane endpoints are reached

- Untreated
- CAR-T cellsCAR T cells + CellPryme-A
- CellPryme-M CAR-T cells + CellPryme-A

transplanted into the mammary fat pad



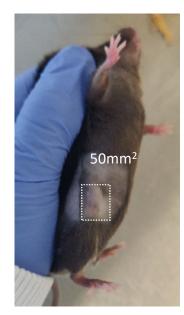
## **Untreated**



**CAR-T** cells alone



CellPryme-A + CAR-T cells



CellPryme-A + CellPryme-M CAR-T cells

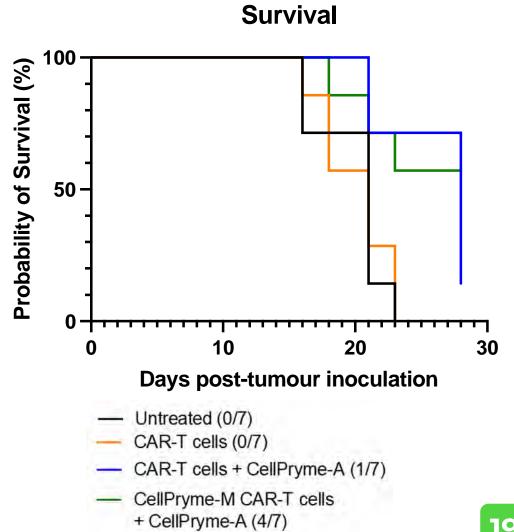


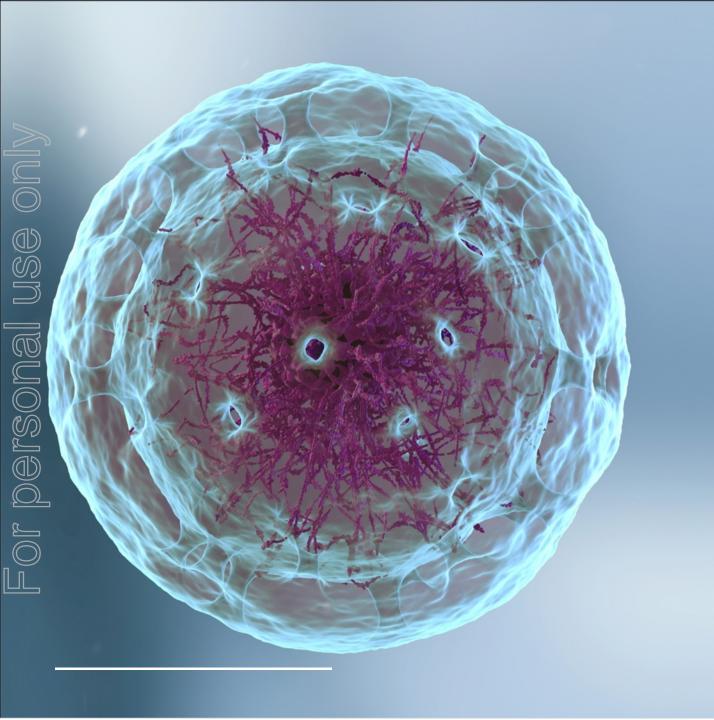
# **CellPryme-A improves survival**



- Highly aggressive and resistant cancer model
- CAR-T cells did <u>not</u> improve survival in this model
- CellPryme-A improved the survival of animals given CAR-T cells by over 20% (5 days)
  - The combination of CellPryme-A and CellPryme-M treated CAR-T cells extended survival beyond the study period in half of the animals under experimentation

Note: Animal ethics approval up to 150mm<sup>2</sup> or up to 28 days on study unless other humane endpoints are reached





# Next steps & opportunities

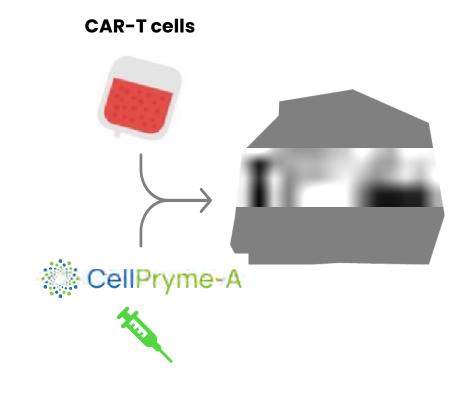
# **CellPryme-A ready for the clinic**





# **CLINIC-READY THERAPY**

- Ready for clinical testing as adjuvant/neoadjuvant therapy
- Straightforward to incorporate adjuvant into other CAR-T programs
- Robust regulatory package
- Clinical grade material available



# Dersonal

# Multiple development opportunities





# NEW SCALABLE PLATFORM OPPORTUNITY FOR PTX

• Prescient to incorporate into internal OmniCAR programs

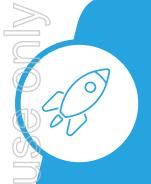
# Collaborate & partner with developers of cellular therapies

- Boost 3rd party solid tumour CAR-T programs
- Straightforward to incorporate CellPryme-A
- Not limited to CAR-T also iNK, NK-T, macrophages, TIL etc



# **CellPryme-A Summary**





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- Use with any existing cell therapy for solid tumours

