Prescient Unveils Clinic-Ready CellPryme-M Platform for Enhancing Cell Therapies

Key points

- **CellPryme-M platform shown to produce superior cell product for CAR-T therapy**
- **Ready for use in clinical trials**
- **GMP materials available to partners now**
- **Easily incorporated into existing CAR-T manufacturing processes**
- **Developed by Prescient in collaboration with the Peter MacCallum Cancer Centre**
- **Intellectual property wholly owned by Prescient**
- **Opens up an entirely new commercial platform for external collaborations and sales to other cell therapy companies, and can enhance Prescient's own OmniCAR programs**

MELBOURNE Australia, 8 June 2022 – Prescient Therapeutics ("Prescient"; ASX: PTX), a clinical stage oncology company developing personalised therapies to treat cancer, today unveils its high-performance cell therapy manufacturing enhancement technology, named CellPryme-M. CellPryme-M is a platform technology that produces superior cells during the cell manufacturing process. These cells are less prone to exhaustion, enabling longer duration of cancer killing activity, and are capable of improved tumour trafficking and penetrance compared to the current generation of CAR-T cells. Resultantly, CellPryme-M CAR-T cells perform significantly better than conventional CAR-T cells in highly aggressive solid cancer models. CellPryme-M was developed by Prescient in collaboration with world leading cancer research institute, the Peter MacCallum Cancer Centre (Peter Mac), with Prescient retaining whole ownership of intellectual property. CellPryme-M is now ready for use in clinical studies. Prescient plans to use CellPryme-M to enhance the cells used in its breakthrough OmniCAR programs. Additionally, Prescient will seek to license CellPryme-M to other cell therapy companies to enhance conventional CAR-T programs and enter into value-adding collaborations with external parties.

What is CellPryme-M?

CellPryme-M is a platform for enhancing cell therapies by producing cells with superior phenotypes. It involves a single, rapid step that can be easily accommodated within standard cell manufacturing protocols. During the cell manufacturing process, CellPryme-M influences gene expression in immune cells that results in down-regulation of genes associated with cell metabolism and protein folding and up-

regulation of genes associated with interferon and cytokine signalling; and genomic stability. Resultantly, the cells are "pushed" towards a more desirable phenotype for effective CAR-T therapy.

Cell phenotype determines clinical anti-cancer responses

Although T cells are often referred to collectively, they are an extremely diverse group of cells with different sub-types, each with different characteristics and roles in the body.

CAR-T clinical trials have clearly established that patient outcomes are much better when the CAR-T cells have less differentiated phenotypes (namely more central memory T cells)[1]. Current CAR-T therapies are often rich in effector T cells, which are important for cytotoxicity, but are prone to rapid exhaustion and cell death. It is therefore highly desirable for CAR-T therapies to include more helper T cells (which synergise with effector T cells) and more "youthful" central memory T cells, which have greater proliferative capacity and persist for much longer, resulting in longer lasting tumour killing ability.

CellPryme-M produces superior CAR-T cell phenotypes

The cells produced from the CellPryme-M process have many favourable characteristics required from more effective cell therapies, including:

- 50% more central memory T cells, a highly clinically relevant sub-type;
- Double proportion of CD4+ helper T cells, for synergy with effector T cells;
- Significantly more chemokine receptors, important for tumour trafficking and tumour penetrance, especially important in solid tumours; and
- Greater genomic stability and DNA repair for enhanced self-renewal.

Importantly, the superior cell phenotype of CellPryme-M cells does not come at the expense of effectiveness, with T cells retaining their potency with no increased safety risks due to higher cytokine release.

CellPryme-M CAR-T cells nearly doubled tumour control compared to conventional CAR-T, and significantly improved survival (double that of control) in a mouse model of highly aggressive breast cancer that is largely resistant to conventional CAR-T.

An additional and unexpected finding during the development of CellPryme-M was the rapid activation of genes pertaining to potent anti-viral pathways. With cell therapies now being explored for treating infectious diseases, being able to produce T cells with enhanced anti-viral activity may provide a distinct advantage in creating effective therapies against viruses.

[1] Wang, *et al*; *Front. Immunol*., September 2021

With a compelling body of pre-clinical data, CellPryme-M is now ready for clinical testing. Prescient intends to incorporate CellPryme-M into its own OmniCAR programs, where the superior cell type can complement the multi-antigen targeting and persistent dosing that the modular OmniCAR system provides. Prescient will also seek to license CellPryme-M to other companies for incorporation into their own cell therapy programs, as well as seeking value-adding external collaborations.

Prescient's Senior Vice President of Scientific Affairs, Dr Rebecca Lim, said, "It has been really exciting to see the power of the CellPryme-M technology unfold over the past 18 months. This GMP grade product can be easily incorporated into any CAR-T manufacturing program to significantly boost the cancer killing ability of T cells by skewing their phenotype to a less differentiated state. CellPryme-M alters key signalling pathways within as little as 15 minutes, which means that users can incorporate CellPryme-M into their manufacturing process with virtually no interruption, even if their manufacturing timeframes are only 24-48 hours.

"I can see enormous potential for CellPryme-M to benefit those third-party CAR-T programs that have struggled with getting good persistence and tumour penetrance with their CAR T cells."

"What is also exciting is that these effects are likely to extend CellPryme-M to other cell therapy modalities such as CAR-NK, TCR T cells etc., since persistence and tumour penetrance continues to be the key to tumour clearance."

Prescient Managing Director and CEO Steven Yatomi-Clarke said, "CellPryme is Prescient's second cell therapy platform and is a valuable addition to the Company's pipeline. By producing superior cell types, CellPryme-M truly complements the OmniCAR platform, which enables control, multi-valency and many other characteristics and is agnostic to cell type."

"CellPryme-M also opens up an entirely new business opportunity to license CellPryme-M to other cell therapy companies. It requires minimal intervention into existing and emerging manufacturing process and therefore represents a relatively low implementation hurdle. This opens up real commercial opportunities for Prescient to incorporate CellPryme-M into third party manufacturing processes. However, in a real show of confidence, Prescient will be it is own first customer by using it to enhance its internal OmniCAR programs, to combine next-gen CAR-T capabilities with superior cell phenotypes."

An explanatory presentation on CellPryme, together with supporting data, accompanies this announcement.

- Ends -

Join a briefing

Prescient CEO and Managing Director Steven Yatomi-Clarke and Senior VP of Scientific Affairs Rebecca Lim will be holding a live and interactive briefing on Friday 10th June at 12.30pm (AEST) to discuss the new cell therapy enhancement platform CellPryme in more detail. Click here to register.

To stay updated with the latest company news and announcements, please update your details 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.

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.

Steven Yatomi-Clarke	**Investor enquiries:**	**Media enquiries:**
CEO & Managing Director	Sophie Bradley – Reach Markets	Andrew Geddes – CityPR
Prescient Therapeutics	+61 450 423 331	+61 2 9267 4511
steven@ptxtherapeutics.com	ir@reachmarkets.com.au	ageddes@citypublicrelations.com.au

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Supplemental COVID-19 Risk Factors

Please see our website : Supplemental COVID-19 Risk Factors