

ASX: ALA

Arovella Therapeutics Limited
ACN 090 987 250



ASX Release

30 October 2023

AUSBIOTECH INVEST PRESENTATION

Highlights:

- **Arovella presents at AusBiotech Invest 2023**

MELBOURNE, AUSTRALIA 30 October 2023: Arovella Therapeutics Ltd (ASX: ALA), a biotechnology company focused on developing its invariant Natural Killer T (iNKT) cell therapy platform, is pleased to announce that its CEO And MD, Dr Michael Baker, will today present at Australia's premier life science investment conference, AusBiotech Invest.

Dr Baker will present key pre-clinical data for Arovella's iNKT cell therapy platform and described how Arovella's technology provides important advantages over existing T-cell therapies and has the potential to be applied to both blood cancers and solid tumours. The presentation is attached to this release and is also available on the Company's website <https://www.arovella.com/investor-presentations>.

Release authorised by the Managing Director and Chief Executive Officer of Arovella Therapeutics Limited.

Dr Michael Baker

Chief Executive Officer & Managing Director

Arovella Therapeutics Ltd

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NOTES TO EDITORS:

About Arovella Therapeutics Ltd

Arovella Therapeutics Ltd (ASX: ALA) is a biotechnology company focused on developing its invariant natural killer T (iNKT) cell therapy platform from Imperial College London to treat blood cancers and solid tumours. Arovella is also expanding into solid tumour treatment through its DKK1-peptide targeting technology licenced from MD Anderson and CLDN18.2-targeting technology licensed from Sparx Group. Additional tumour targeting technologies are anticipated to be used in conjunction with Arovella's iNKT cell therapy platform. Arovella's lead product is ALA-101. ALA-101 consists of CAR19-iNKT cells that have been modified to produce a Chimeric Antigen Receptor (CAR) that targets CD19. CD19 is an antigen found on the surface of numerous cancer types. iNKT cells also contain an invariant T cell receptor (iTCR) that targets α -GalCer bound CD1d, another antigen found on the surface of several cancer types. ALA-101 is being developed as an allogeneic cell therapy, which means it can be given from a healthy donor to a patient.

Glossary: **iNKT cell** – invariant Natural Killer T cells; **CAR** – Chimeric Antigen Receptor that can be introduced into immune cells to target cancer cells; **TCR** – T cell receptors are a group of proteins found on immune cells that recognise fragments of antigens as peptides bound to MHC complexes; **B-cell lymphoma** – A type of cancer that forms in B cells (a type of immune system cell); **CD1d** – Cluster of differentiation 1, which is expressed on some immune cells and cancer cells; **aGalCer** – alpha-galactosylceramide is a specific ligand for human and mouse natural killer T cells. It is a synthetic glycolipid.

For more information, visit www.arovella.com

This announcement contains certain statements which may constitute forward-looking statements or information ("forward-looking statements"), including statements regarding negotiations with third parties and regulatory approvals. These forward-looking statements are based on certain key expectations and assumptions, including assumptions regarding the actions of third parties and financial terms. These factors and assumptions are based upon currently available information, and the forward-looking statements herein speak only of the date hereof. Although the expectations and assumptions reflected in the forward-looking statements are reasonable in the view of the Company's directors and management, reliance should not be placed on such statements as there is no assurance that they will prove correct. This is because forward-looking statements are subject to known and unknown risks, uncertainties and other factors that could influence actual results or events and cause actual results or events to differ materially from those stated, anticipated or implied in the forward-looking statements. These risks include but are not limited to: uncertainties and other factors that are beyond the control of the Company; global economic conditions; the risk associated with foreign currencies; and risk associated with securities market volatility. The Company assumes no obligation to update any forward-looking statements or to update the reasons why actual results could differ from those reflected in the forward-looking statements, except as required by Australian securities laws and ASX Listing Rules.

ASX:ALA



AusBioInvest
2023 Invest in
Health



AusBioInvest 2023

ASX: ALA

October 2023



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Arovella's strengths

Off-the-Shelf iNKT Cell Platform

Developing off-the-shelf iNKT cell therapies to target blood cancers and solid tumour cancers

Lead Product Advancing to Clinic

ALA-101, potential treatment for CD19-expressing blood cancers, progressing to phase I clinical trials, expected to commence in 2024

Addressing Key Unmet Need

Our iNKT cell platform is well positioned to solve key challenges that hamper the cell therapy sector

Strong Leadership Group

Leadership team and Board have proven experience in drug development, particularly cell therapies

Strategic Acquisitions

Focused on acquiring innovative technologies that strengthen its cell therapy platform and align with its focus areas

Unique Value Proposition

Arovella is among few companies globally developing an iNKT cell therapy platform



Strong leadership

Leadership



Dr. Michael Baker
CEO & MANAGING DIRECTOR



Dr. Nicole van der Weerden
CHIEF OPERATING OFFICER



Dr. Mini Bharathan
SVP DEVELOPMENT &
TRANSLATIONAL MEDICINE



Dr. Robson Dossa
VP MANUFACTURING & QUALITY



Dr. Simon Poon
DIRECTOR PROJECT
MANAGEMENT



Board of Directors



Dr. Tom Duthy
BOARD CHAIR



Dr. Elizabeth Stoner
DIRECTOR



Dr. Debora Barton
DIRECTOR



Mr. Gary Phillips
DIRECTOR



Mr. David Simmonds
DIRECTOR



Cell Therapy has revolutionised blood cancer treatment

CAR-T cells have demonstrated their curative potential in blood cancers



The Cell Therapy market is expected to reach **\$61.2 billion** by 2030¹

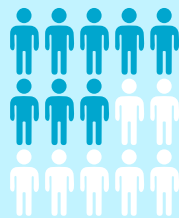


Cure

CAR-T cells have demonstrated ability to **cure haematological cancers**



Strong Sales



40-60%

Patients relapse post-CAR-T therapy²

Product	Approval Year	2022 Revenue
 YESCARTA (axicabtagene ciloleucel)	2017	US\$1160m ³
 KYMRIAH (tisagenlecleucel)	2017	US\$536m ⁴
 Abecma (idecabtagene vicleucel)	2021	US\$388m ⁵

- <https://www.businesswire.com/news/home/20230529005130/en/Global-Cell-Therapy-Market-Report-2023-Advancements-in-Biotechnology-Drives-Growth---ResearchAndMarkets.com>
- Zinzi et al., 2023 Pharmacological Research - 10.1016/j.phrs.2023.106742
- https://s29.q4cdn.com/585078350/files/doc_financials/2022/q4/GILD-Q4-FY22-Earnings-Press-Release-2-February-2023.pdf
- https://www.novartis.com/sites/novartis_com/files/q4-2022-media-release-en.pdf
- <https://bioprocessintl.com/bioprocess-insider/therapeutic-class/bms-sees-car-t-sales-rocket-in-line-with-increased-capacity/#:~:text=For%20the%20full%20year%202022,%2487%20million%20the%20year%20prior>

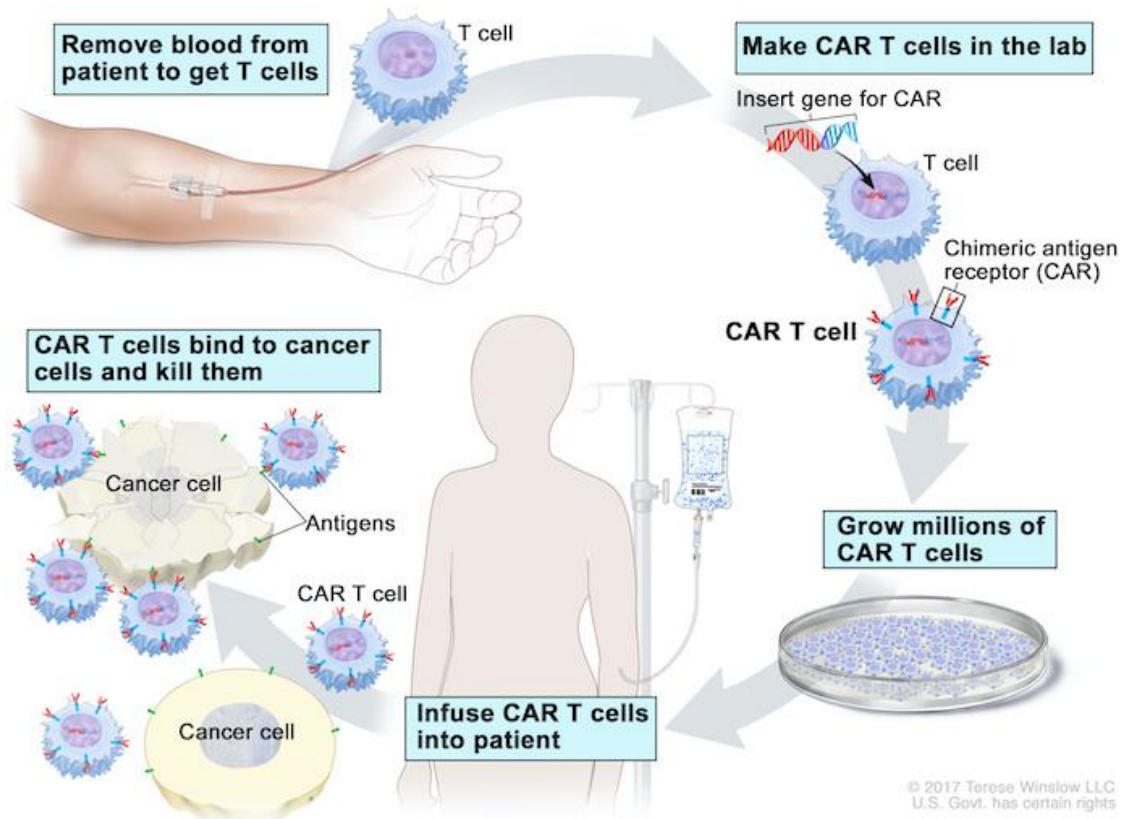


Emily Whitehead - Celebrating 10 Years of CAR T-Cell Therapy

<https://emilywhiteheadfoundation.org/10-years-of-car-t/>

How original CAR-T cell therapies work

CAR-T cell therapy is personalised medicine



T cells = immune cell

T cells are a common type of immune cell that fight infections and can help fight cancer.



T cells from patient 'reprogrammed'

To generate autologous CAR-T cells, T cells are taken from a patient with blood cancer and 'reprogrammed' to produce a Chimeric Antigen Receptor (CAR). The CAR can recognise cancer cells through a target antigen.

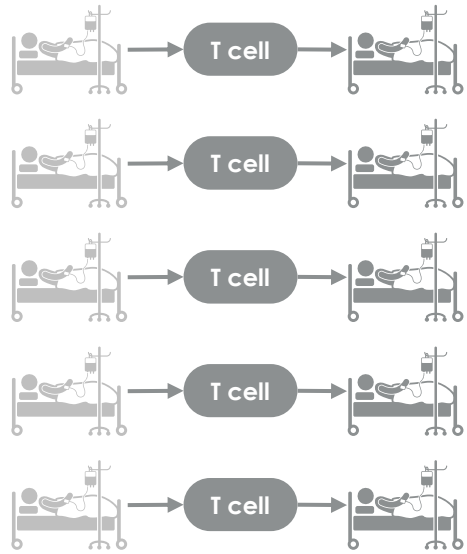


CAR-T cells find & kill tumour cells

CAR-T cells are administered to the patient to find and kill the tumour cells. Once the CAR binds to a tumour cell, the CAR-T cell is activated to kill the tumour cell.

CAR-T cell therapies pose challenges

The current supply chain results in very high costs



T cells must originate from the patient

Each manufacturing batch is patient-specific

Manufacturing & supply chain costs are high



High drug pricing (>US\$500k per patient)

T cells can be compromised due to disease



Potential reduction in efficacy

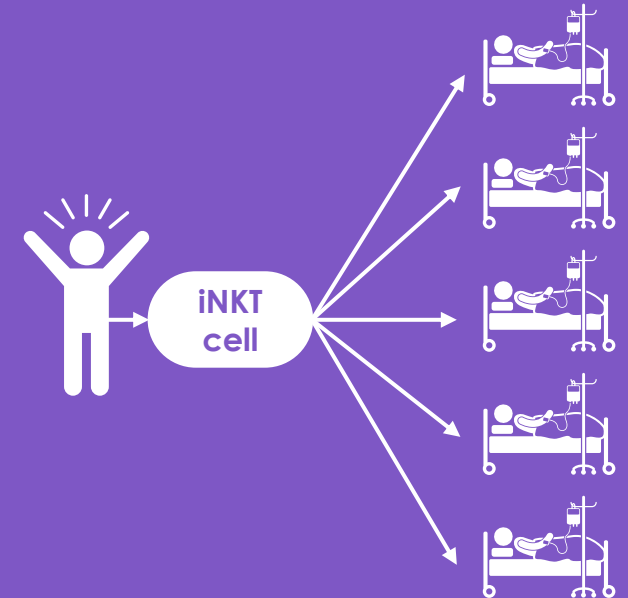
Limited centres can collect and manufacture



Limits patient access

Arovella's **off-the-shelf CAR-iNKT** cell platform

with potential for improved efficacy



Allogeneic

A single healthy donor batch = treatment for multiple patients

CAR-T cell therapies pose challenges

The manufacturing time can block patient access



4-6 weeks
manufacturing
time

Patient must wait for
therapy to be
manufactured

**Patient may
die waiting for
treatment**



Time is an issue
for patients with
aggressive disease

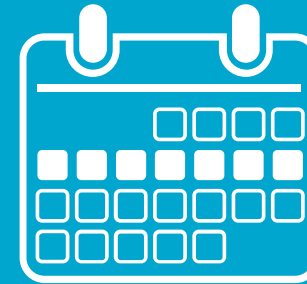
**Manufacturing
run failures
can occur**



Further increasing
the time to treatment
(and cost)

Arovella's **off-the-shelf
CAR-iNKT** cell platform

with potential for improved efficacy



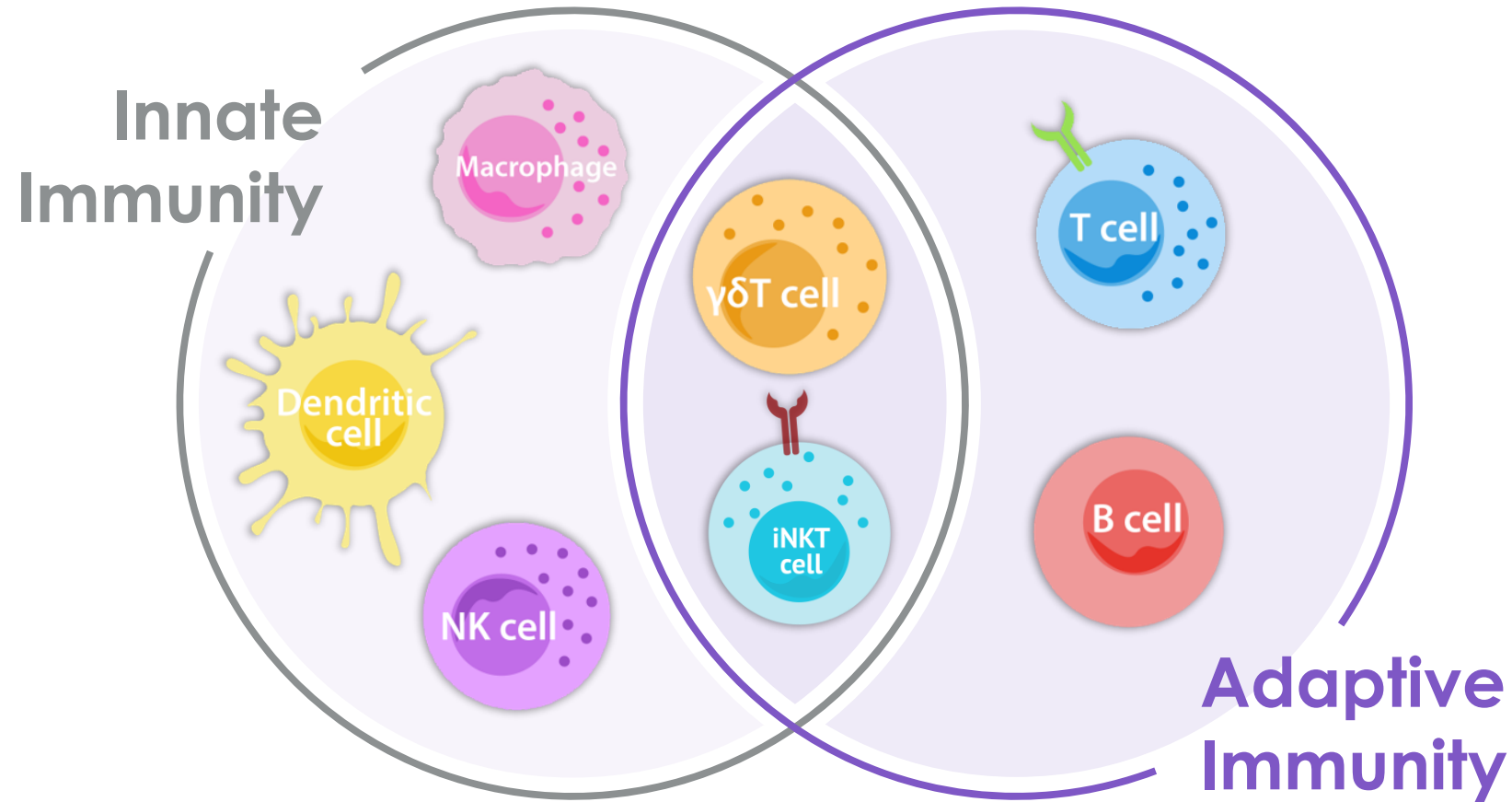
1 week



Patients ready to dose
within 1 week

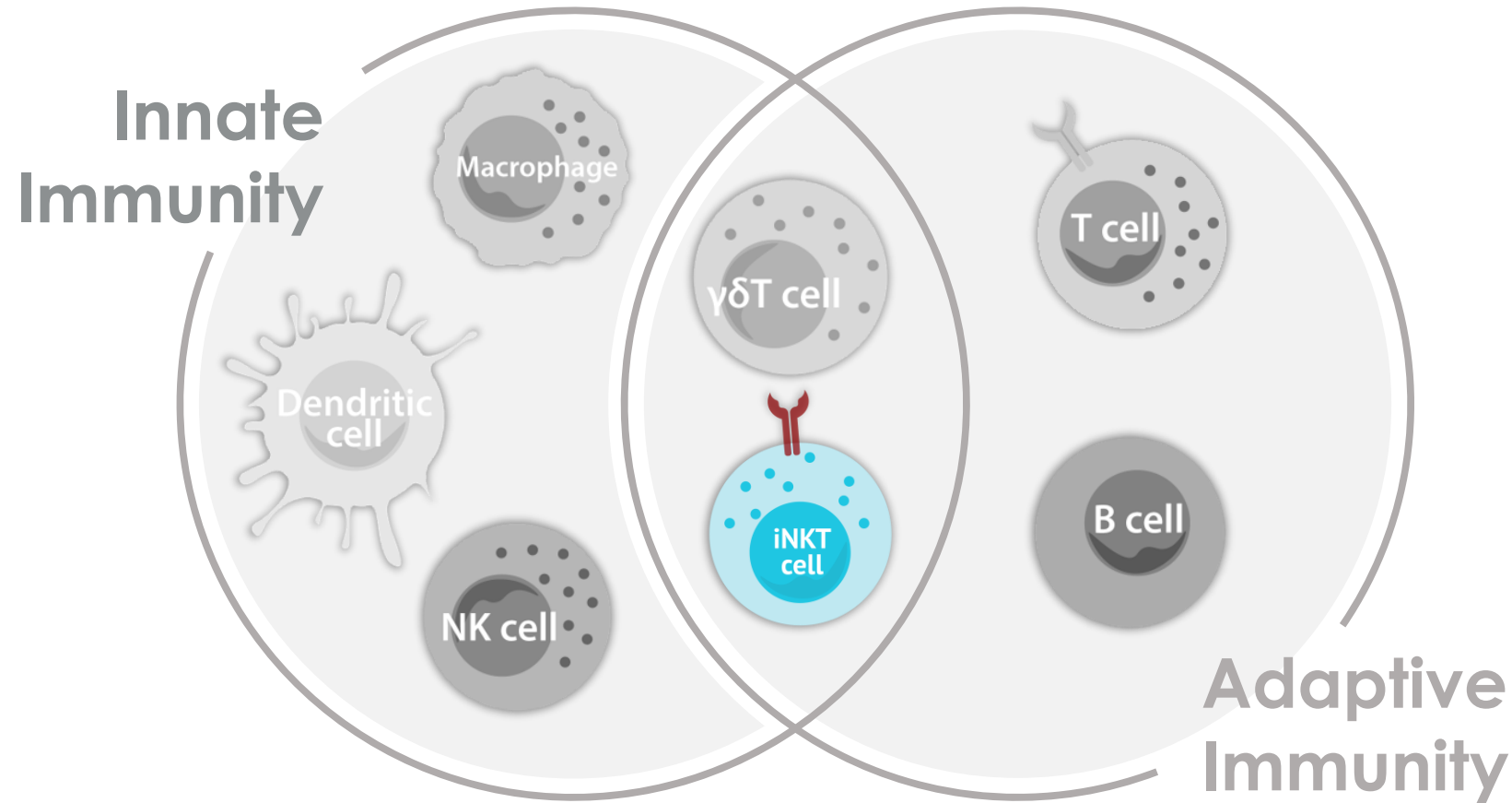
Introducing invariant Natural Killer T (iNKT) cells

Bridging the innate and adaptive immune system



iNKT cells represent a next-gen cell therapy

Properties make them ideal for use in cell therapy



Front line of the human immune system

- Bridge innate & adaptive immune responses
- Contain both T cell & NK cell killing mechanisms
- Naturally target & kill cancers that express CD1d

Strong safety profile

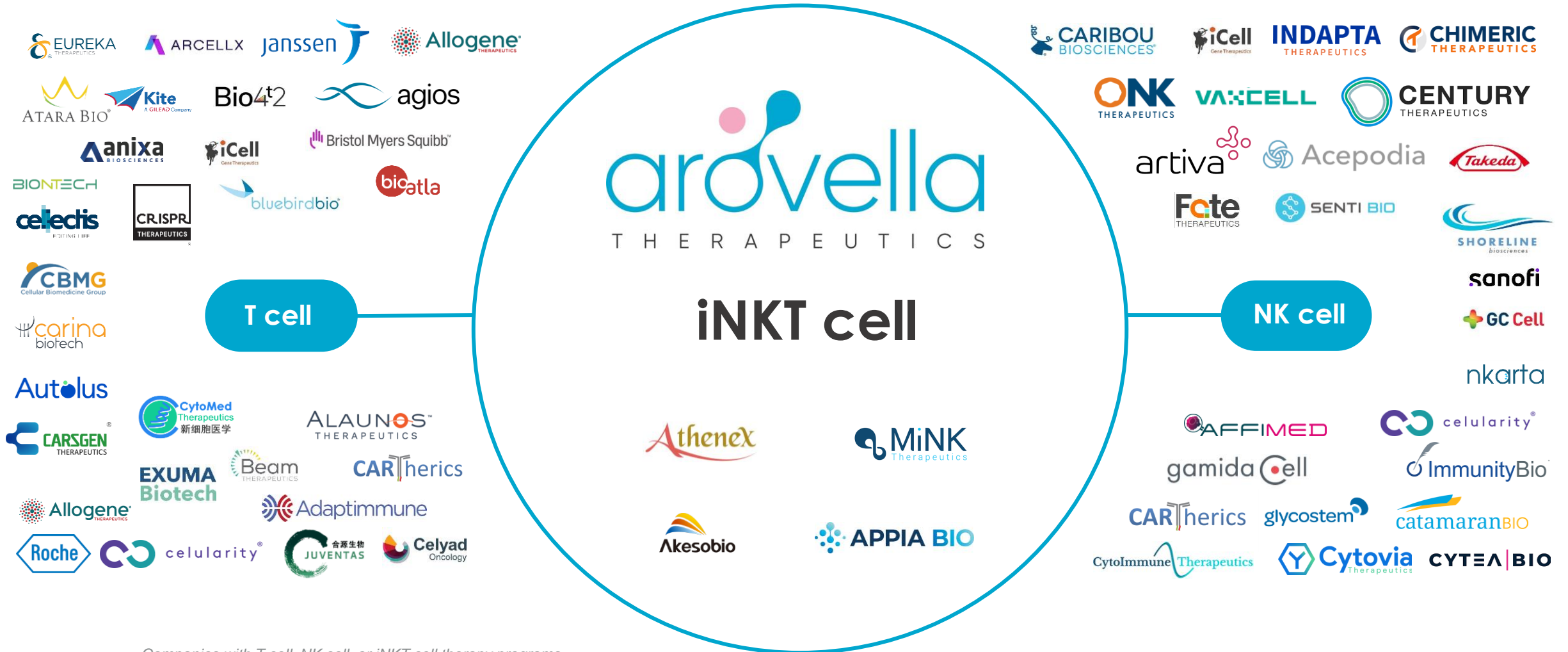
- Don't cause graft versus host disease (GvHD)

Multiple anti-cancer properties

- Shape the tumour microenvironment by blocking/killing pro tumour cells (TAMs/MDSCs)
- Infiltrate tumours & secrete signaling molecules to activate other immune cells to kill tumour cells

























A differentiated position

T cell and NK cell sectors are competitive



Companies with T cell, NK cell, or iNKT cell therapy programs.
Source: Company analysis based on public information

Recent cell therapy transactions

Date	Type of deal	Acquirer/Licensee	Target/Licensors	Cell Type	Stage	Upfront (US\$M)	Milestones (US\$M)	Total deal value (US\$M)
Aug-23	License ¹	 IMUGENE Developing Cancer Immunotherapies		T Cell	Phase 1b	\$21	\$206	\$227
Aug-23	Strategic Investment (ROFR) ²			T Cell	Phase 1	\$25	\$0	\$25
May-23	License			T Cell	Phase Ib	\$245	<i>undisclosed</i>	
Jan-23	Acquisition			T Cell	Phase I	\$200	\$120	\$320
Oct-22	Development collaboration ³			T Cell	Phase II	\$225	<i>undisclosed</i>	
Sep-22	Research collaboration			T Cell	Preclinical	\$70	<i>undisclosed</i>	
Aug-22	Licence & strategic collaboration			T Cell	Phase I	\$110	\$110	\$220
Sep-21	Development collaboration			T Cell	Preclinical	\$150	\$150	\$300
Aug-21	Research collaboration			iNKT Cell	Preclinical	<i>undisclosed</i>	<i>undisclosed</i>	\$875
May-21	Acquisition			iNKT Cell	Phase I	\$70	\$115	\$185
Jun-21	Acquisition			Multiple	Preclinical	\$125	\$0	\$125
Dec-19	Acquisition			Multiple	Preclinical	\$120	\$545	\$665

1. Precision is eligible for double digit royalties on net sales and \$145 million in milestone payments and tiered royalties for additional programs
2. Poseida also received a \$25m equity investment from Astellas
3. Arcellx also received a \$100m equity investment from Gilead
4. See Slide 19 for deal references

Financial overview

Financial Snapshot

ASX CODE	ALA
Market capitalisation ¹	\$81.5 million
Shares on issue	906.31 million
52-week low / high ¹	\$0.020 / \$0.105
Cash Balance (September 30 2023) ²	\$5.32 million

Major Shareholders

Shareholder	Ownership (%) ¹
THE TRUST COMPANY (AUSTRALIA) LIMITED	59,483,026 (6.56%)
RICHARD JOHN MANN	50,905,657 (5.61%)
UBS NOMINEES PTY LTD	20,620,196 (2.28%)
BLACKBURNE CAPITAL PTY LTD	18,325,000 (2.02%)
DYLIDE PTY LTD	15,666,666 (1.73%)

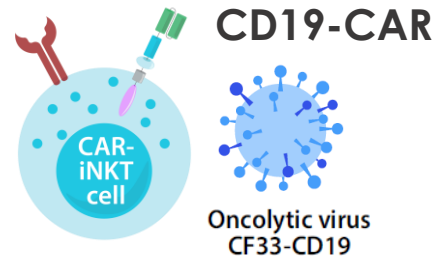
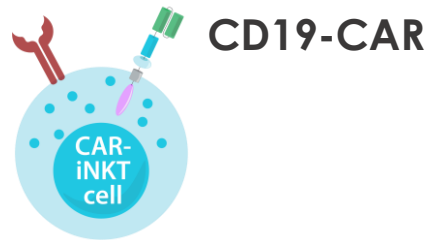
1. As of 27 October 2023

2. Does not include the R&D tax incentive rebate of approximately \$2m expected in Q4 2023

ALA Price and Volume - 12 Months¹



Arovella's expanding pipeline



ALA-101

ALA-101 + onCARlytics

CLDN18.2 and DKK1

Cytokine Technology



Non-Hodgkin's Lymphoma



Head and Neck Cancer



Prostate Cancer



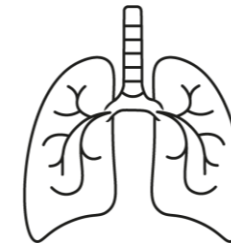
Brain Metastases



Triple negative breast cancer



Pancreatic Cancer

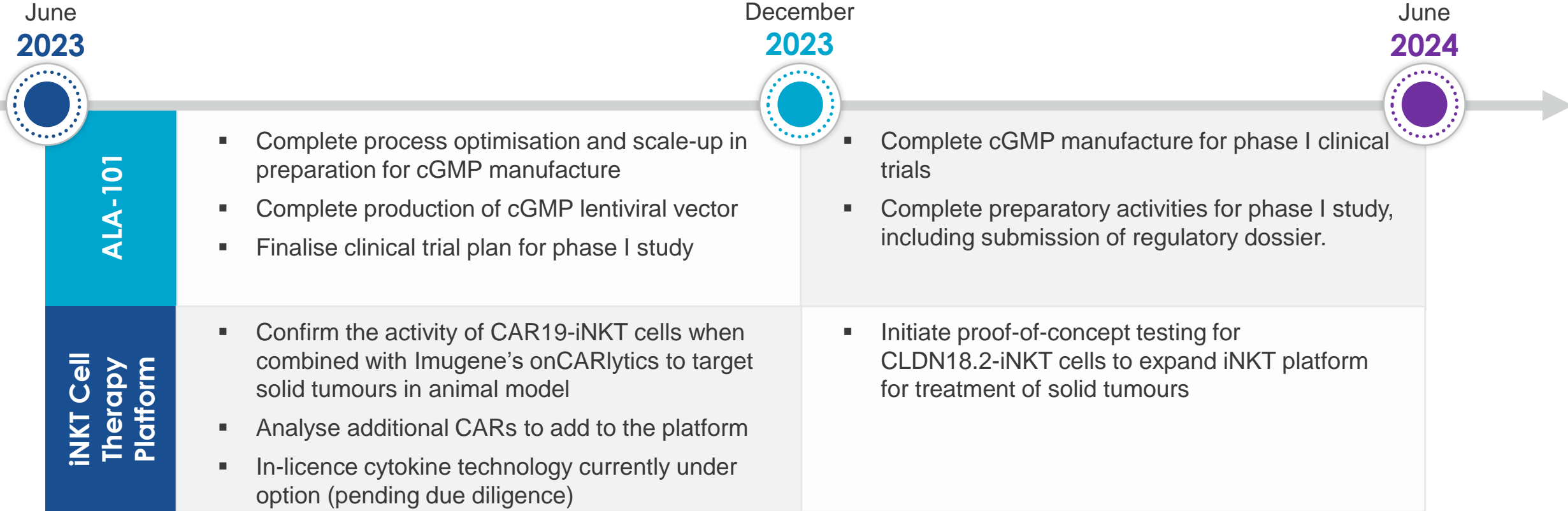


Lung Cancer



Gastric Cancers

Milestones and news flow for FY2024



Expect to advance ALA-101 to phase I first-in-human clinical trial during 2024

Non-Hodgkin’s lymphoma patients, dose escalation, primary end point – DLTs, secondary endpoint – efficacy signals



Continue to enhance the platform and expand the pipeline

Expand the use of the iNKT platform to treat solid tumours

Summary



Novel allogeneic CAR-iNKT cell platform

iNKT cells serve as an excellent platform to develop allogeneic, or “off-the-shelf”, cell therapies to treat cancer



Lead product progressing to clinical trials

ALA-101, a potential treatment for CD19-expressing blood cancers, is being progressed to phase I clinical trials, expected to commence in 2024

Improved manufacturing logistics

Allogeneic CAR-iNKT cells will significantly improve logistics and increase patient access



Arovella has an expanding pipeline

Arovella continues to expand the iNKT cell platform to potentially treat solid tumours

Arovella's CAR-iNKT Cell Platform



CAR-iNKT cells have multiple anticancer properties

CAR-iNKT cells have multiple anti-cancer properties that may support enhanced efficacy over other immune cell types



Arovella is poised for growth

Arovella is developing a cutting-edge CAR-iNKT cell therapy platform, with an expanding pipeline and a strong leadership team

ASX:ALA



Thank You

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Cell therapy deal references

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3. <https://www.jnj.com/janssen-enters-worldwide-collaboration-and-license-agreement-with-cellular-biomedicine-group-to-develop-next-generation-car-t-therapies>
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8. <https://www.adaptimmune.com/investors-and-media/news-center/press-releases/detail/197/adaptimmune-enters-into-a-strategic-collaboration-with>
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11. <https://eternatx.com/news/brooklyn-immunotherapeutics-completes-acquisition-of-eterna-therapeutics/>
12. <https://www.astellas.com/en/news/15516>