

**ASX: ALA**

Arovella Therapeutics Limited  
ACN 090 987 250



**ASX Release**

03 July 2024

**INVESTOR PRESENTATION**

**MELBOURNE, AUSTRALIA 3 July 2024:** Arovella Therapeutics Ltd (ASX: ALA), a biotechnology company focused on developing its invariant Natural Killer T (iNKT) cell therapy platform, is pleased to provide an update to investors in the form of the attached presentation.

The presentation will be used in Arovella's non-deal investor roadshow being conducted this week.

The presentation is attached to this announcement and can be viewed on the Company's website [www.arovella.com.au](http://www.arovella.com.au).

*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**

Tel +61 (0) 403 468 187

[investor@arovella.com](mailto:investor@arovella.com)

**ASX: ALA**

Arovella Therapeutics Limited  
ACN 090 987 250



## 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'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 (iTTCR) that targets glycolipid 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. Arovella is also expanding into solid tumour treatment through its CLDN18.2-targeting technology licensed from Sparx Group. Arovella will also incorporate its IL-12-TM technology into its solid tumour programs.

**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](http://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



# Non-deal roadshow

July

2024



ersonal use only

# Disclaimer

1. The information in this presentation does not constitute personal investment advice. The presentation is not intended to be comprehensive or provide all information required by investors to make an informed decision on any investment in Arovella Therapeutics Limited (Company). In preparing this presentation, the Company did not take into account the investment objectives, financial situation and particular needs of any particular investor.
2. Further advice should be obtained from a professional investment adviser before taking any action on any information dealt with in the presentation. Those acting upon any information without advice do so entirely at their own risk.
3. Past performance information given in this presentation is given for illustrative purposes only and should not be relied upon as (and is not) an indication of future performance. The presentation includes forward-looking statements regarding future events and the future financial performance of Arovella. Forward looking words such as “expect”, “should”, “could”, “may”, “predict”, “plan”, “will”, “believe”, “forecast”, “estimate”, “target” or other similar expressions are intended to identify forward-looking statements. Any forward-looking statements included in this document involve subjective judgment and analysis and are subject to significant uncertainties, risks and contingencies, many of which are outside the control of, and are unknown to, Arovella and its officers, employees, agents or associates. In particular, factors such as outcomes of clinical trials and regulatory decisions and processes may affect the future operating and financial performance of Arovella. This may cause actual results to be materially different from any future results, performance or achievements expressed or implied by such statements. The information also assumes the success of Arovella’s business strategies. The success of the strategies is subject to uncertainties and contingencies beyond control, and no assurance can be given that the anticipated benefits from the strategies will be realised in the periods for which forecasts have been prepared or otherwise. Given these uncertainties, you are cautioned to not place undue reliance on any such forward looking statements. Arovella is providing this information as of the date of this presentation and does not assume any obligation to update any forward-looking statements contained in this document as a result of new information, future events or developments or otherwise.
4. Whilst this presentation is based on information from sources which are considered reliable, no representation or warranty, express or implied, is made or given by or on behalf of the Company, any of its directors, or any other person about the accuracy, completeness or fairness of the information or opinions contained in this presentation. No responsibility or liability is accepted by any of them for that information or those opinions or for any errors, omissions, misstatements (negligent or otherwise) or for any communication written or otherwise, contained or referred to in this presentation.
5. Neither the Company nor any of its directors, officers, employees, advisers, associated persons or subsidiaries are liable for any direct, indirect or consequential loss or damage suffered by any person as a result of relying upon any statement in this presentation or any document supplied with this presentation, or by any future communications in connection with those documents and all of those losses and damages are expressly disclaimed.
6. Any opinions expressed reflect the Company’s position at the date of this presentation and are subject to change.
7. This document does not constitute an offer to sell, or a solicitation of an offer to buy, securities in the United States or any other jurisdiction in which it would be unlawful. The distribution of this presentation in jurisdictions outside Australia may be restricted by law and any such restrictions should be observed.



# 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 1 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



# Arovella's iNKT cell strategy

Incorporating world class IP to target a range of tumour types

**Foundation IP**  
Unique process to transduce iNKT cells with a CAR and expand CAR-iNKT cells  
*(licenced from Imperial College London)*

**Armouring technology**  
Complementary technologies that improve the activity or persistence of iNKT cells  
*(eg cytokine technology from UNC)*

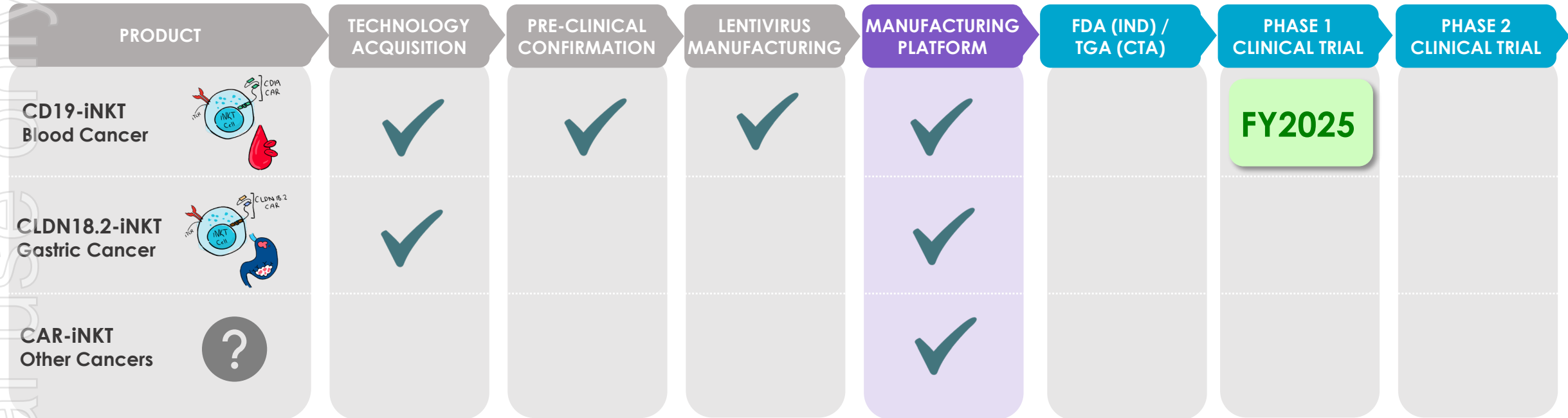
**Novel CARs**  
Unique moieties for targeting different cancers  
*(eg CLDN18.2 mAb licenced from Sparx)*

**Regulatory strategy**  
12-year marketing exclusivity as a novel biologic drug, Orphan Drug Designation, Fast Track Designation, Paediatric Extension

**Know-How**  
Process-specific know-how and Trade Secrets

# Arovella's path to patient

Taking Arovella's first CAR-iNKT therapeutic to human trials in FY2025



- IL-12-TM will be incorporated into Arovella's solid tumour programs
- Armouring using IL-12-TM can be incorporated using the same manufacturing platform

# Financial overview

## Financial Snapshot

ASX CODE	ALA
Market capitalisation <sup>1</sup>	\$147.1 million
Shares on issue	1,050.2 million
52-week low / high <sup>1</sup>	\$0.042 / \$0.185
Cash Balance (Mar 31, 2024) <sup>2</sup>	\$15.31 million

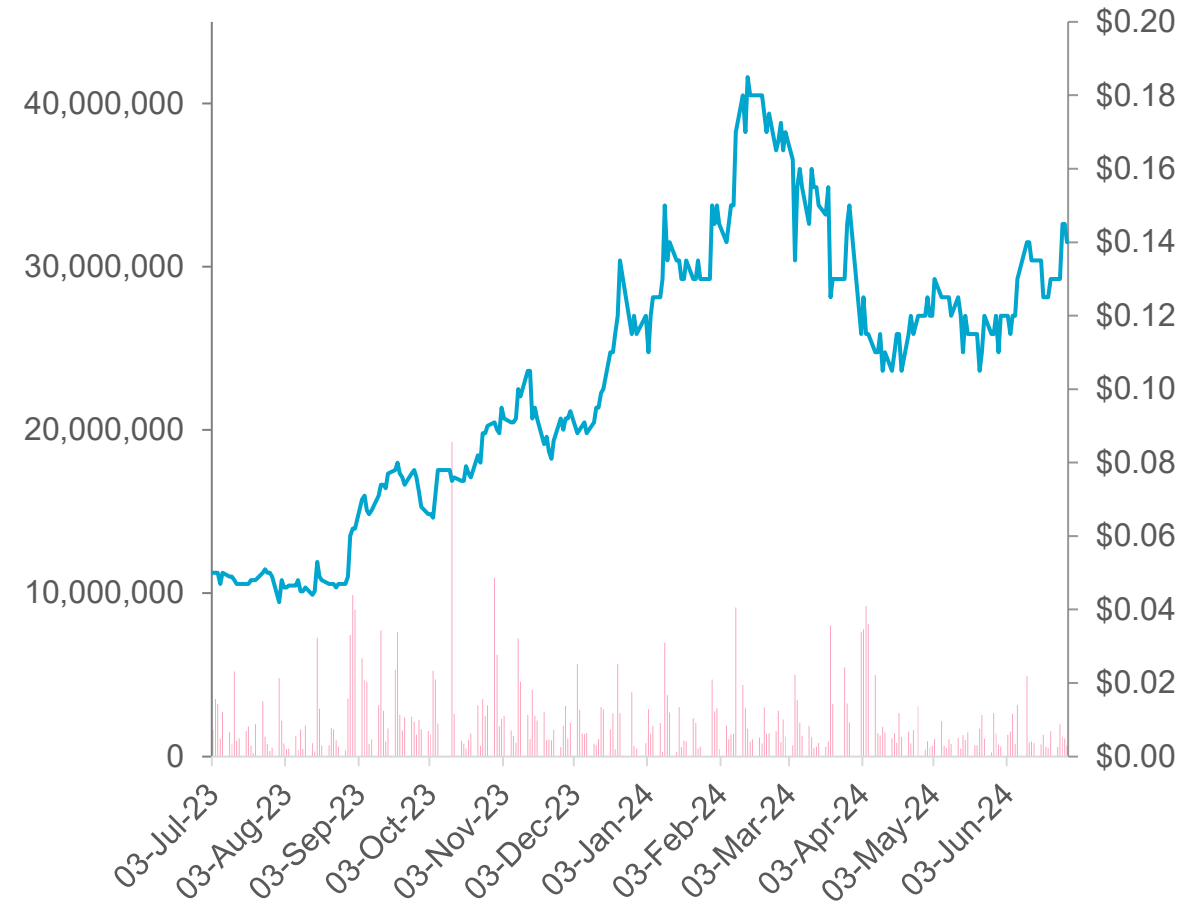
## Major Shareholders

Shareholder	Ownership (%) <sup>1</sup>
RICHARD JOHN MANN	64,458,288 (6.16%)
MERCHANT FUNDS MANAGEMENT	62,996,544 (6.02%)
MB INVESTMENT CAPITAL PTY LTD	27,636,115 (2.64%)
UBS NOMINEES PTY LTD	25,620,196 (2.45%)
MR JAMES EVAN HUGHES-MORRIS	21,917,196 (2.10%)

1. As of 21 June 2024





























2. Includes the proceeds of the Placement announced 26 March 2024

## ALA Price and Volume - 12 Months<sup>1</sup>





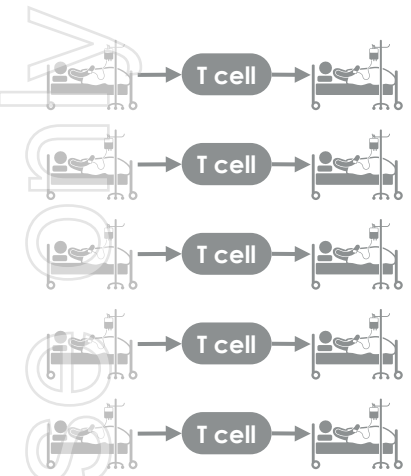
# Recent cell therapy transactions<sup>1</sup>

Date	Type of deal	Acquirer/Licensee	Target/Licensor	Cell Type	Stage	Upfront (US\$M)	Milestones (US\$M)	Total deal value (US\$M)
May-24	Research collaboration	 XYPHOS	 POSEIDA THERAPEUTICS	T cell	TBD	\$50	\$550	\$600
Dec-23	Acquisition	 AstraZeneca	 GRACELL	T Cell	Phase 1b	\$1,000	\$200	\$1,200
Nov-23	Collaboration and investment <sup>2</sup>	 AstraZeneca	 cellectis	Not specified	Platform	\$25	\$70-220 per product	
Aug-23	Licence <sup>3</sup>	 IMUGENE <small>Developing Cancer Immunotherapies</small>	 PRECISION BIOSCIENCES	T Cell	Phase 1b	\$21	\$206	\$227
Aug-23	Strategic investment (ROFR) <sup>4</sup>	 astellas	 POSEIDA THERAPEUTICS	T Cell	Phase 1	\$25	\$0	\$25
May-23	Licence	 janssen	 CBMG <small>Cellular Biomedicine Group</small>	T Cell	Phase 1b	\$245	<i>undisclosed</i>	
Jan-23	Acquisition	 AstraZeneca	 neogene <small>THERAPEUTICS</small>	T Cell	Phase 1	\$200	\$120	\$320
Oct-22	Development collaboration <sup>5</sup>	 GILEAD	 ARCELLX	T Cell	Phase 2	\$225	<i>undisclosed</i>	
Sep-22	Research collaboration	 Genentech <small>A Member of the Roche Group</small>	 ArsenalBio	T Cell	Preclinical	\$70	<i>undisclosed</i>	
Aug-22	Licence & strategic collaboration	 Roche	 POSEIDA THERAPEUTICS	T Cell	Phase 1	\$110	\$110	\$220
Sep-21	Development collaboration	 Genentech <small>A Member of the Roche Group</small>	 Adaptimmune	T Cell	Preclinical	\$150	\$150	\$300
Aug-21	Research collaboration	 GILEAD	 APPIA BIO	iNKT Cell	Preclinical	<i>undisclosed</i>	<i>undisclosed</i>	\$875
May-21	Acquisition	 Athenex	 kuur <small>THERAPEUTICS</small>	iNKT Cell	Phase 1	\$70	\$115	\$185
Jun-21	Acquisition	 eterna	 Novellus THERAPEUTICS	Multiple	Preclinical	\$125	\$0	\$125

1. See the last slide for deal references; 2. Cellectis will receive a US\$220m equity investment from Astra Zeneca plus tiered royalties. Milestones are payable for 10 products; 3. Precision is eligible for double digit royalties on net sales and \$145 million in milestone payments and tiered royalties for additional programs; 4. Poseida also received a US\$25m equity investment from Astellas; 5. Arcellx also received a US\$100m equity investment from Gilead

# Current CAR-T technology challenges

One CAR-T product **only** treats the patient who supplied the T cells



Each manufacturing batch is **patient-specific**

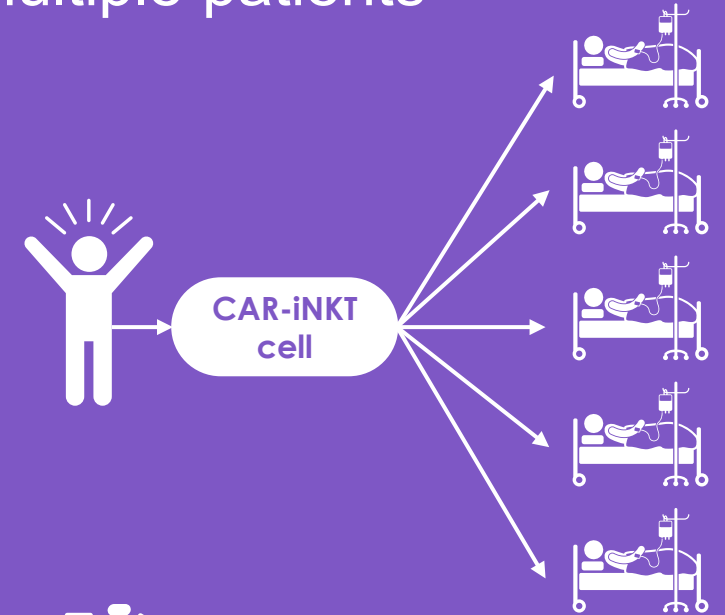
Patient must wait **3-4 weeks** for therapy



- ❗ Manufacturing & supply chain **costs are high**
- ❗ T cells **can be compromised** due to disease
- ❗ **Limited centres** can collect and manufacture
- ❗ **Time is an issue** for patients with aggressive disease
- ❗ Manufacturing run **failures can occur**

# ALA's solution:

One CAR-iNKT batch from a **healthy donor** treats multiple patients



 **1 week**

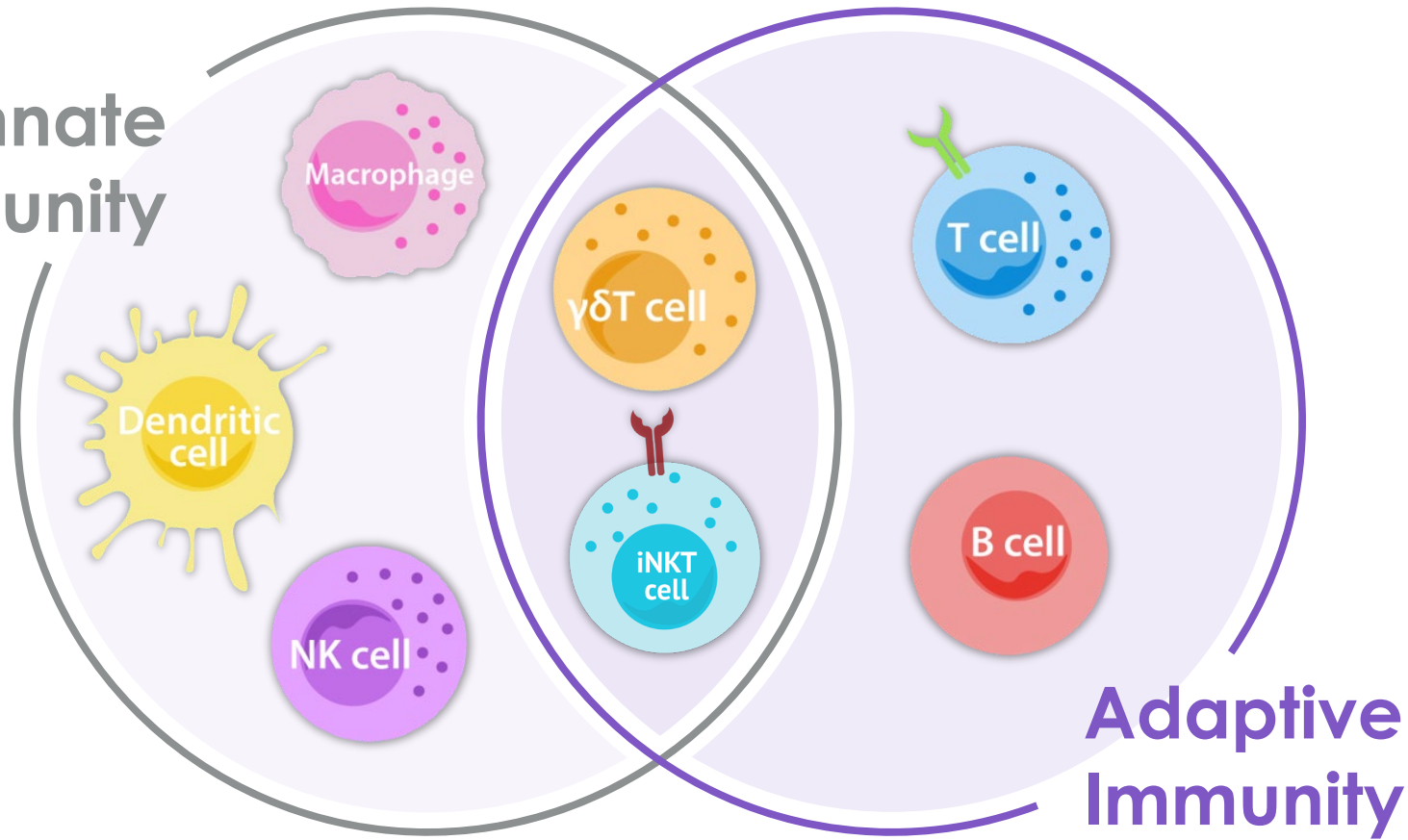
Patients ready to dose within 1 week

# Introducing invariant Natural Killer T (iNKT) cells

Bridging the innate and adaptive immune system

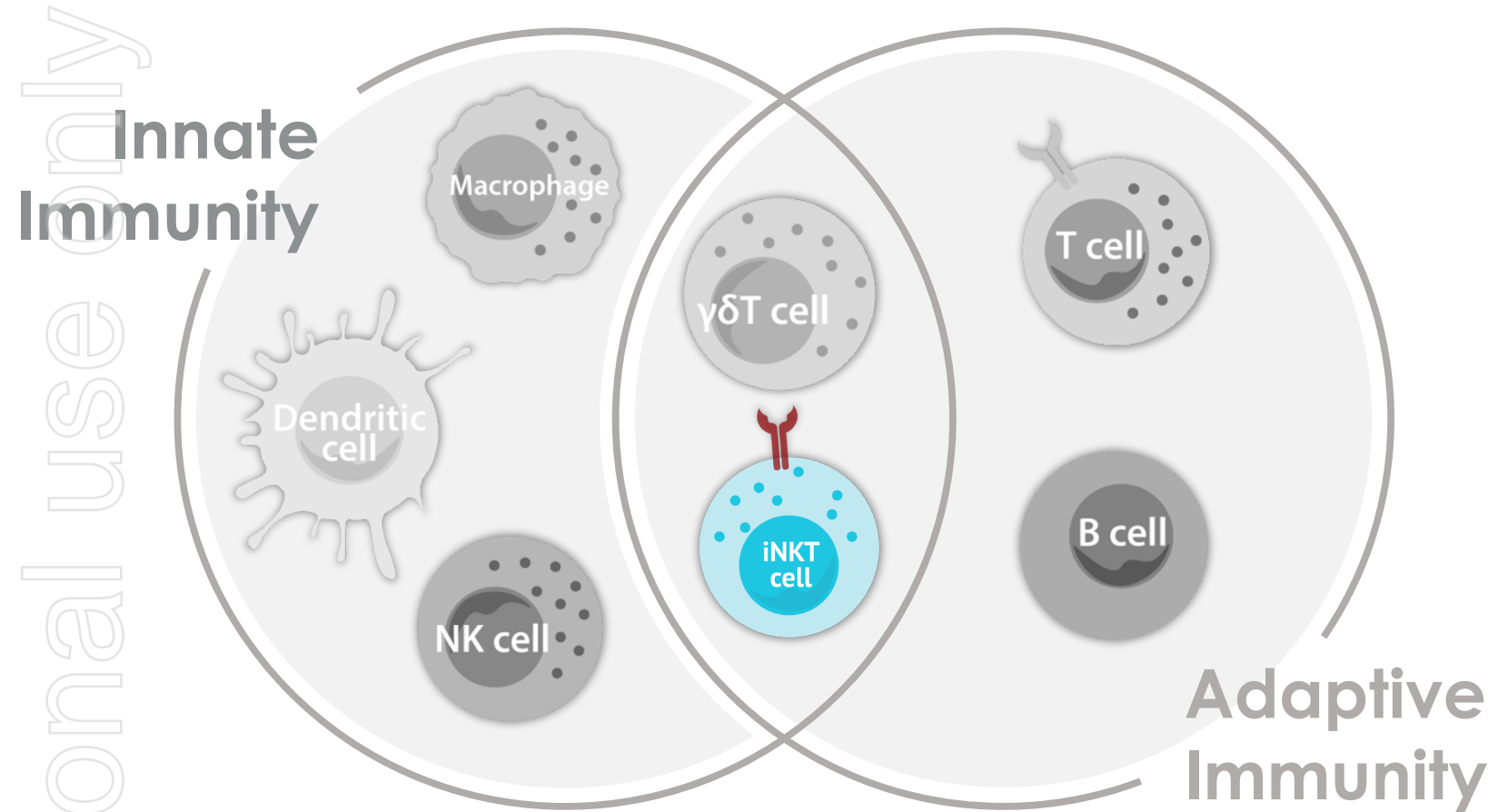


Personal use only



# iNKT cells represent a next-generation cell therapy

Innate properties make them ideal for use in cell therapy



## Strong safety profile

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

## Front line of the human immune system

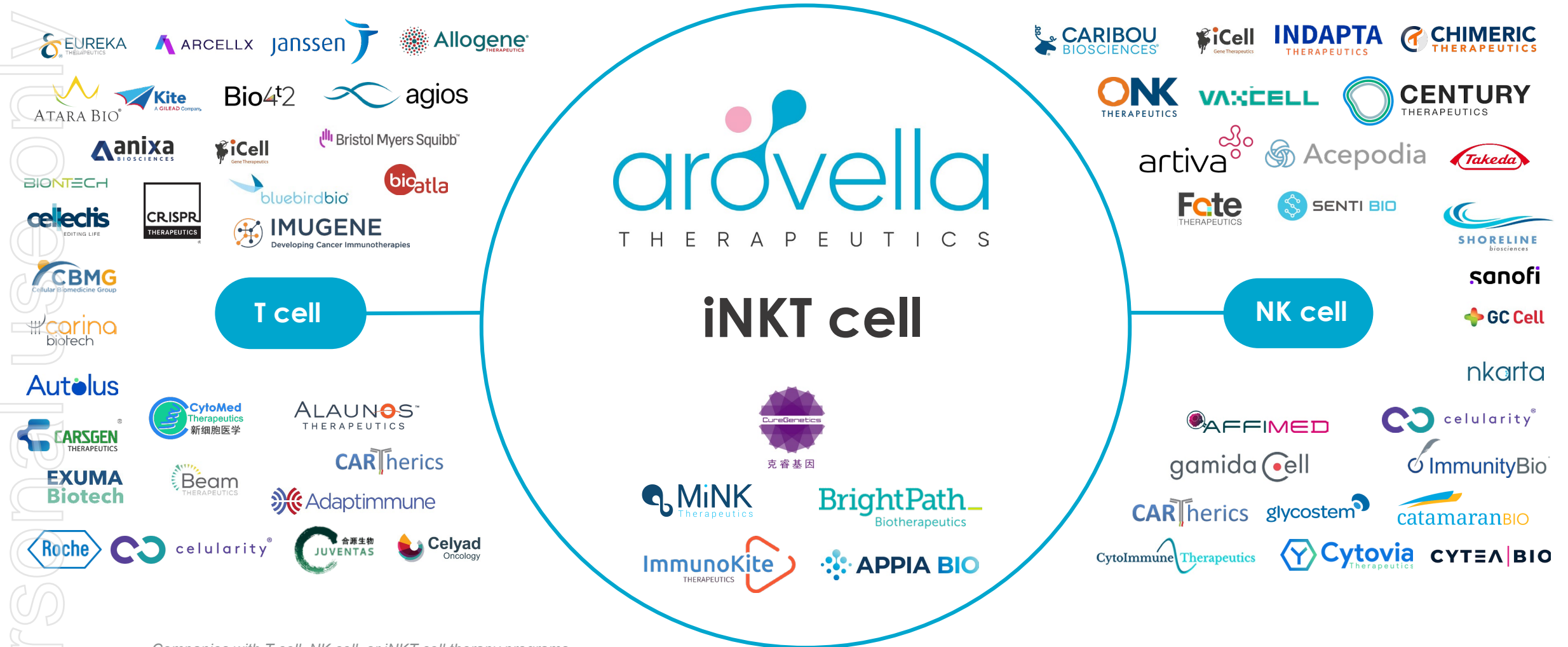
- Bridge innate & adaptive immune responses
- Contain both T cell & NK cell killing mechanisms
- Naturally target & kill cancers that express CD1d

## 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, iNKT cells remain untapped

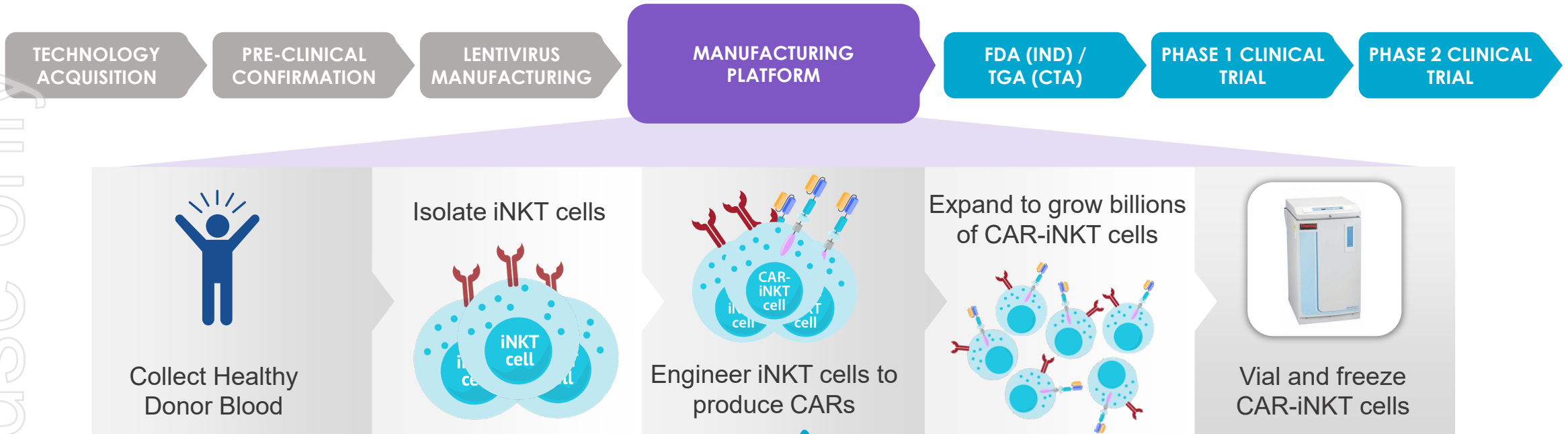


Companies with T cell, NK cell, or iNKT cell therapy programs.  
Source: Company analysis based on public information



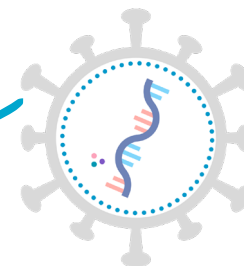
# Clinic-ready manufacturing process developed

Semi-automated process suitable for large-scale and late-phase clinical development



## Completed process development with excellent results:

- **High yield**, >5,000-fold expansion of CAR-iNKT cells
- **>60% of the cells have the CAR (i.e. CAR-iNKT cells)**
- **>99% purity** of iNKT cells
- **Semi-automated**, suitable for **large-scale production**
- Potential to leverage **FDA Platform Designation**



Lentivirus for any CAR

Completed GMP manufacture of ALA-101 lentivirus



# Taking ALA-101 into first-in-human trials

ALA is progressing towards its ALA-101-001 phase 1 study



## Clinical trial design and KOL engagement

Engagement with key opinion leaders and potential sites and preparation of protocol synopsis

## IND-enabling studies and regulatory submission

ALA is conducting IND-enabling non-clinical safety and efficacy studies to support regulatory approval

## Regulatory approval and site startup

Once regulatory approval is obtained, sites will be activated and screening of patients can commence

## GMP manufacturing of clinical drug product

ALA is finalizing key GMP inputs and conducting process qualification in preparation for clinical manufacture

## Selection of sites and CRO

ALA will select participating sites and a clinical research organisation partner who will manage the study

First Patient Dosed

# ALA-101-001: Phase 1 first-in-human study

Dose escalation and dose expansion study in patients with CD19+ blood cancers

Patients with relapsed or refractory CD19+ non-Hodgkin's lymphoma (NHL, including DLBCL, FL, MCL, MZL) and CD19+ leukemias (including B-ALL, CLL and HCL).

- Single dose of ALA-101 following lymphodepletion regimen
- **Primary objectives**
  - To evaluate the safety and tolerability of ALA-101 in adult patients with CD19+ NHL or leukemia
- **Secondary objectives**
  - To determine the most appropriate dose of ALA-101 for Phase 2 clinical trials for adult patients with CD19+ NHL or leukemia
  - To evaluate the preliminary efficacy of ALA-101
  - To characterise the pharmacokinetic (PK) profile of ALA-101

## Part 1: Dose Escalation

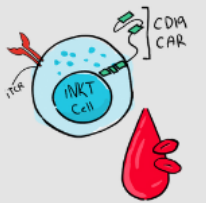
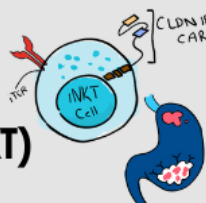
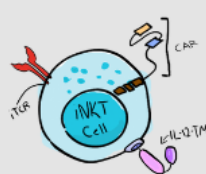
- 4 dose levels
- ~9-12 patients
- CD19+ NHL and leukemias

## Part 2 (Phase 1b): Dose Expansion

- Dose level selected from Part 1
- ~20 patients
- Sub-indications selected from Part 1

# Arovella's expanding pipeline



PRODUCT	INDICATION	DISCOVERY	PRECLINICAL	PHASE 1
<b>ALA-101 (CAR19-iNKT)</b> 	CD19 Expressing cancers	CD19 Expressing Lymphoma		
<b>ALA-105 (CLDN18.2-iNKT)</b> 	CLDN18.2 positive solid tumours	Gastric & Pancreatic Cancers		
<b>IL-12-TM</b> 	Solid Tumours	Solid Tumours		

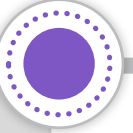
Personal use only

# Upcoming milestones for FY2025



July  
2024

July  
2025



## ALA-101 (CD19)

- Complete cGMP manufacture for Phase 1 clinical trials
- Complete preparatory activities for Phase 1 study, preparation of regulatory dossier, engagement with clinical sites and KOLs
- Commence phase 1 dose escalation study for ALA-101 in patients with CD19+ NHL and leukemia



**Arovella is funded to dose patients with ALA-101 during FY2025**

## ALA-105 (CLDN18.2)

- Proof-of-concept testing for CLDN18.2-iNKT cells and optimisation of the CAR construct for robust efficacy
- Generate animal data for CLDN18.2 targeting CAR-iNKT cells against gastric cancer and/or pancreatic cancer
- Commence activities to manufacture ALA-105 for clinic (e.g. lentiviral vector)

## IL-12-TM Integration

- Integrate IL-12-TM into solid tumour programs and test its efficacy in anti-tumour models
- Enter into a Sponsored Research Agreement (SRA) with Professor Gianpietro Dotti's research group

## Pipeline expansion

- Continue to identify and acquire novel technologies that enhance and expand Arovella's iNKT cell therapy platform



# 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 1 clinical trials, expected to commence in 2025

## 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 and can add different CARs, leveraging its manufacturing process

## CAR-iNKT cells have multiple anticancer properties

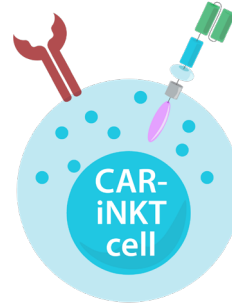
CAR-iNKT cells have multiple anti-cancer properties that may support enhanced efficacy over other immune cell types



## 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

# Arovella's CAR-iNKT Cell Platform





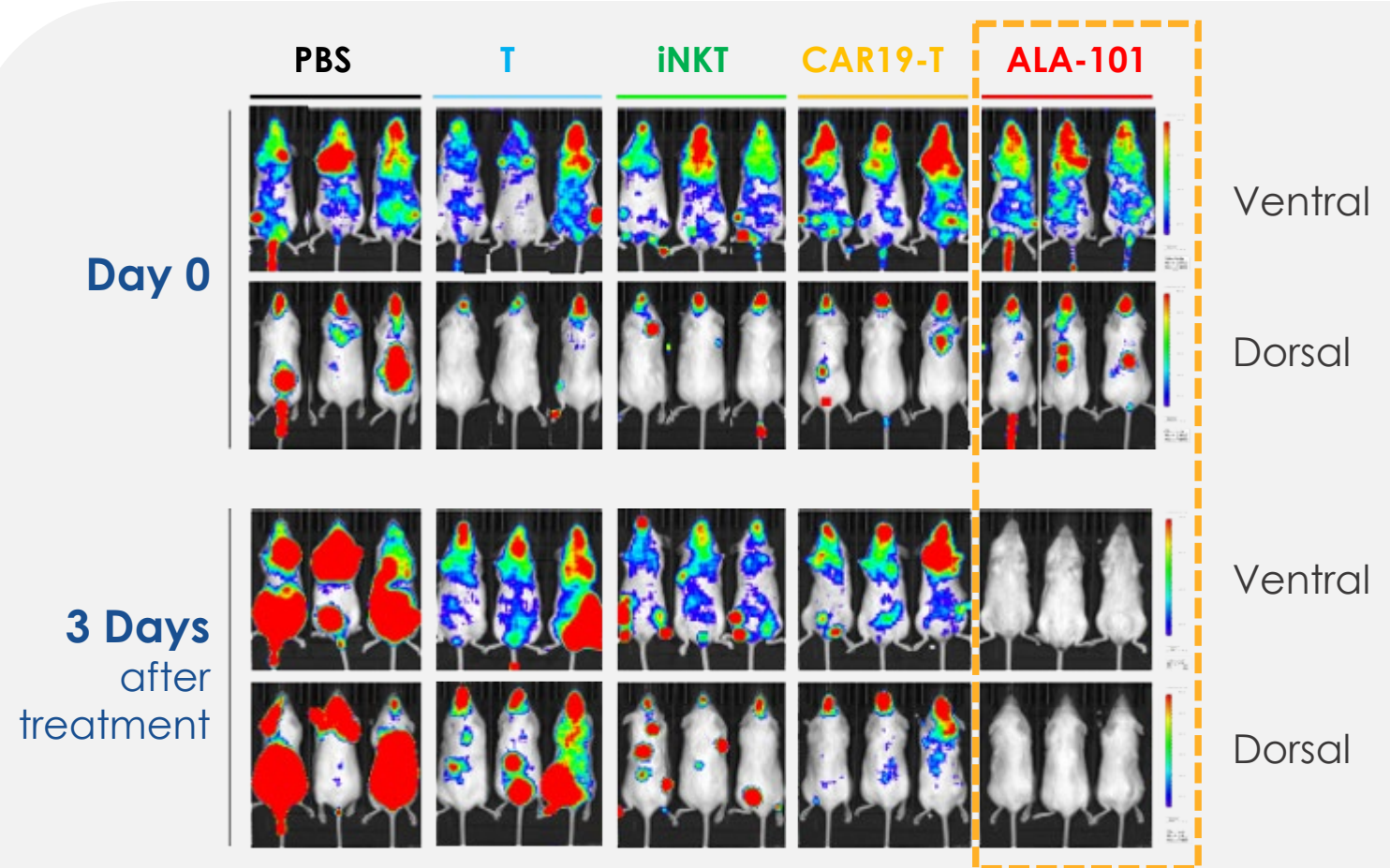
# ALA-101 (CAR19-iNKT cells)

A next generation **off-the-shelf**  
cell therapy for CD19  
expressing cancers

# ALA-101: enhanced tumour killing *in vivo*

ALA-101 rapidly eradicates tumour cells in mice

- Tumour cells expressing **CD19** and **CD1d** were intravenously delivered into mice
- Mice were treated with:
  - PBS (saline)
  - **Unmodified T cells (T)**
  - **Unmodified iNKT cells (iNKT)**
  - **CAR19-T cells**
  - **ALA-101 (CAR19-iNKT cells)**
- After three days, ALA-101 resulted in significant regression of tumour cells
- In all other treatments, there was strong tumour cell persistence
- ALA-101 displays swift action

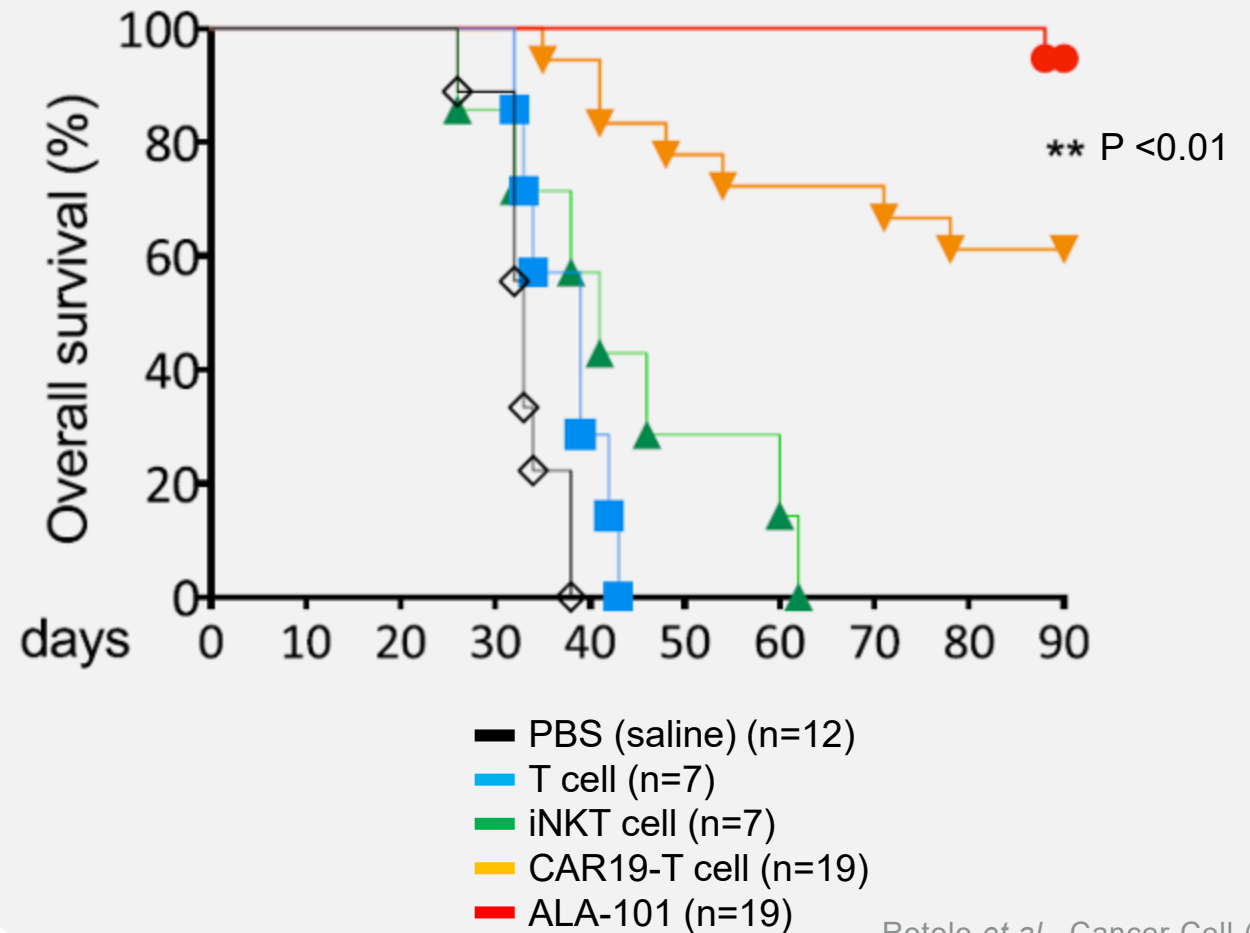


Rotolo *et al.*, Cancer Cell (2018)

# ALA-101: next generation cell therapy

ALA-101 significantly increased survival in mice versus treatment with CAR19-T cells

- Tumour cells expressing **CD19** and **CD1d** were intravenously delivered into mice
- Mice were treated with:
  - PBS (saline)
  - Unmodified T cells (T)
  - Unmodified iNKT cells (iNKT)
  - CAR19-T cells
  - ALA-101 (CAR19-iNKT cells)
- After 90 days, only mice treated with CAR19-T cells or ALA-101 remained alive
- 1.5x more mice treated with ALA-101 remained alive after 90 days relative to CAR19-T cells
- ALA-101 has the potential to be an effective, off-the-shelf cell therapy for the treatment of CD19-expressing cancers



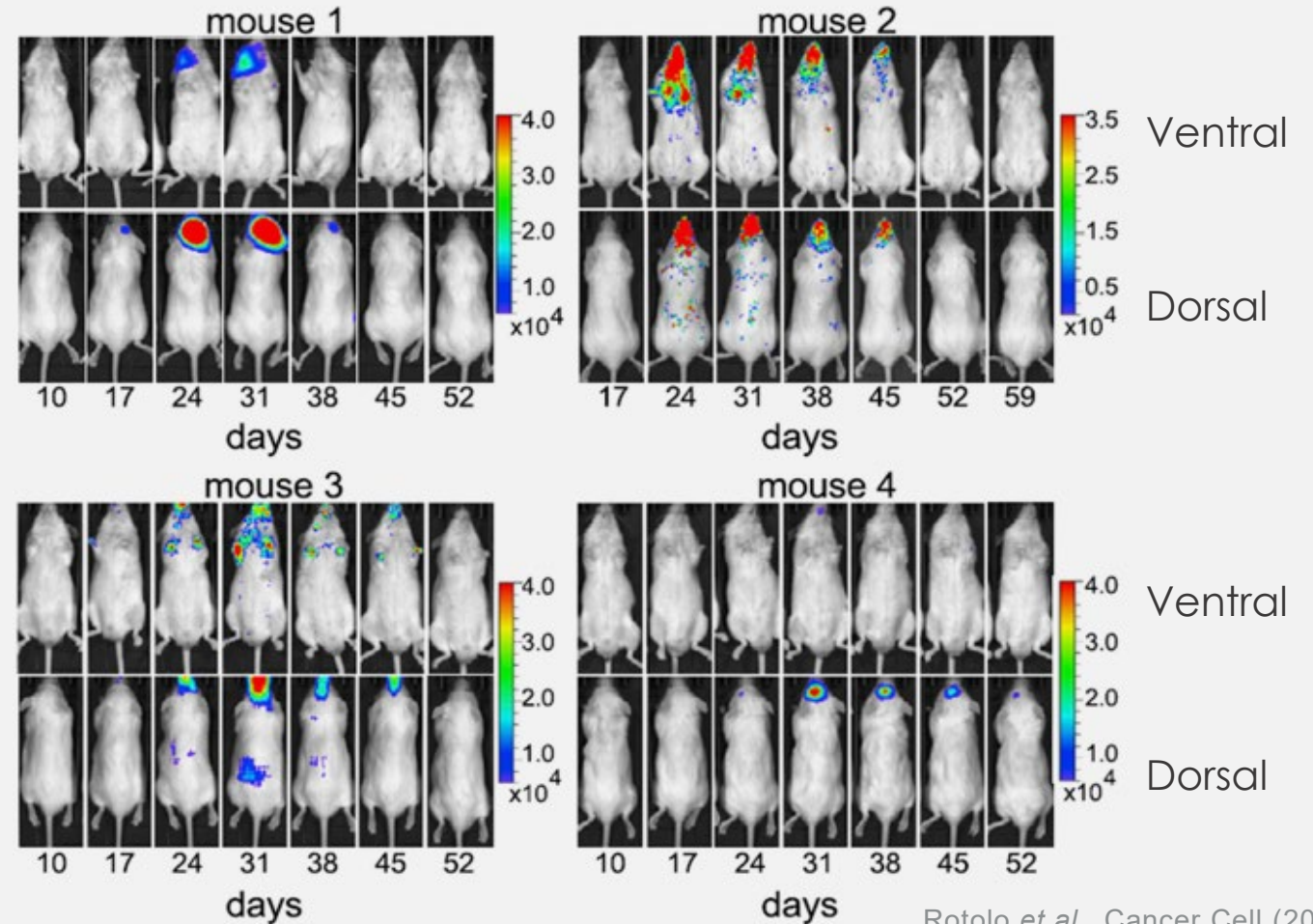
Rotolo et al., Cancer Cell (2018)



# ALA-101: spontaneous secondary remission

ALA-101 activity may persist to eradicate tumour cells following relapse

- Four mice treated with ALA-101 had the cancer return to the brain
- In all four mice, the cancer was eliminated a second time with no additional dosing
- This provides evidence that CAR19-iNKT cells can survive and continue to protect against cancer cells in vivo
- Potential to use ALA-101 to treat central nervous system lymphoma or brain metastases



Rotolo *et al.*, Cancer Cell (2018)



# iNKT cells to target solid tumours

Arovella is implementing its strategy to target and kill solid tumours – 90% of newly diagnosed cancer cases<sup>1</sup>

1. <https://www.cancer.gov/types/common-cancers>

# Arovella's strategies to combat solid tumours

Arovella is using three approaches to expand the iNKT cell platform into solid tumours



## License novel cancer targets

Identify and license new targets that are expressed in multiple cancers to incorporate into Arovella's iNKT cell therapy platform



## Armour iNKT cells

Enhance the performance of iNKT cells by equipping iNKT cells with novel armouring technologies



## Create unique partnerships

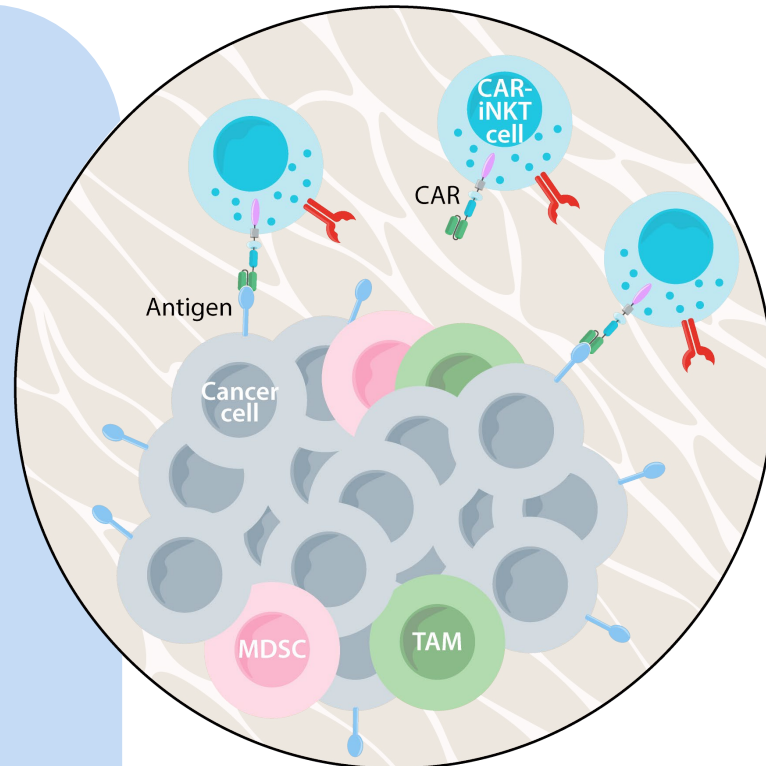
Create partnerships to use novel combination therapies with synergistic effects



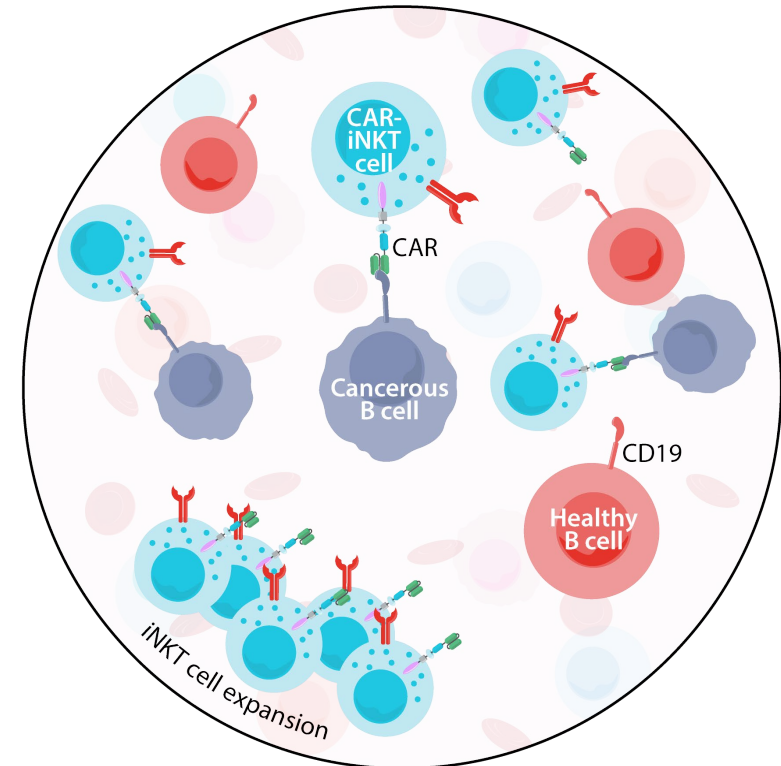
# Solid tumours pose challenges to cell therapies



Solid tumours are more **difficult to treat with cell therapies**



Solid tumour



Blood cancer



Access to tumour



Lack of antigen specificity and uniformity



Tumour microenvironment contains cells that support cancer cell growth

## iNKT cells:



Home to tissues and infiltrate tumours



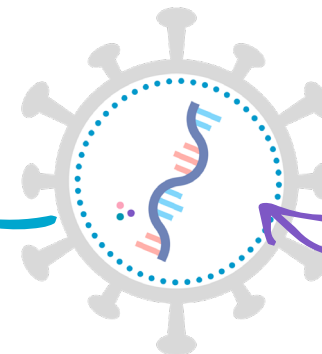
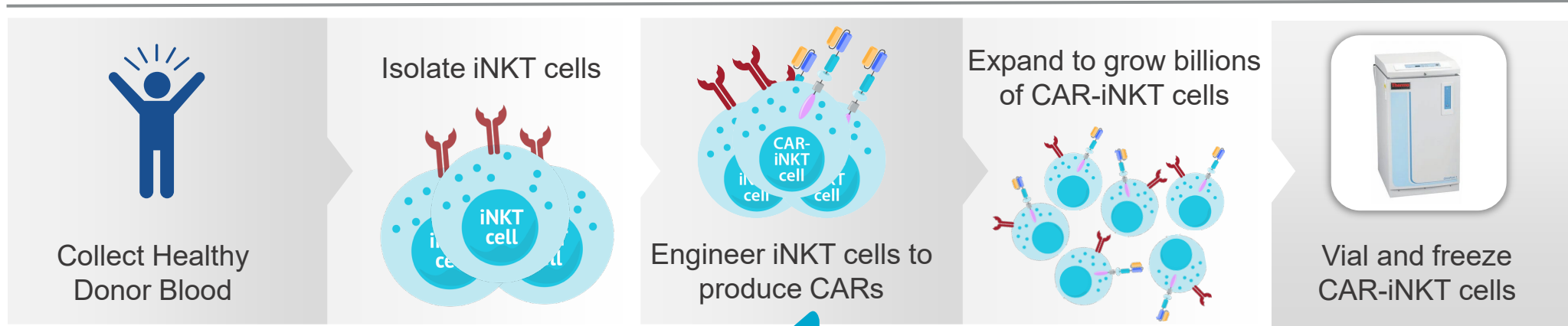
Modify the TME to block or kill cells that promote tumour growth and recruit helpful immune cells



# Add additional CARs for novel targets

Arovella's manufacturing process can be leveraged for multiple cancer types

MANUFACTURING



New CAR genetic material – i.e. CLDN18.2, IL-12-TM and others



New lentivirus generated for each new CAR

Arovella has a clinic-ready manufacturing process for CAR-iNKT cells  
**which can be leveraged to create many CAR-iNKT**  
 cell products to target multiple cancer types

Personal use only





## **ALA-105 (CLDN18.2-iNKT cells)**

A next generation **off-the-shelf** cell therapy for CLDN18.2+ solid tumours



# Claudin 18.2 (CLDN18.2)

A promising solid tumour target

CLDN18.2 overexpression has been  
**identified in several  
types of cancers**

gastric cancer (GC)

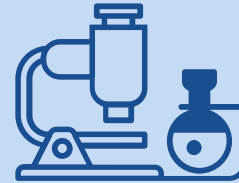
gastroesophageal junction cancer (GEJC)

pancreatic cancer (PC)

esophageal cancer (EC)

ovarian adenocarcinoma (OAC)

lung cancers (LC)



## Validated target

with first CLDN18.2-targeting  
monoclonal antibody  
**approved in Japan in  
March 2024**



## Gastric cancer

market alone expected to reach  
**\$10.7 billion** by 2031<sup>1</sup>

1. <https://www.alliedmarketresearch.com/gastric-cancer-market-A74458#:~:text=The%20global%20gastric%20cancer%20market,cells%20lining%20of%20the%20stomach>



## **iNKT cell armouring (IL-12-TM)**

Armouring strategy to enhance activity of CAR-iNKT cells against solid tumours

# “Armouring” CAR-iNKT cells

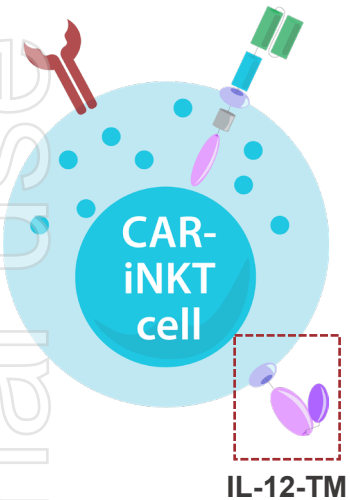
IL-12-TM (cytokine technology) enhances CAR-iNKT cell activity in solid tumours

## IL-12-TM

**IL-12-TM is a modified version of IL-12**

with a membrane anchor that links it to the surface of CAR-iNKT cells. By linking it to the surface of iNKT cells, it can enhance CAR-iNKT cells without being released into the blood stream, making it safer.

The IL-12-TM is incorporated into the lentiviral vector and system and **does not require changes to the manufacturing process**



## iNKT cells + IL-12-TM

**Expand more and survive for longer**

than CAR-iNKT cells lacking the cytokine

**10x more circulating CAR-iNKT cells**

4 weeks after treatment in a mouse model

**Superior anti-tumour activity**

compared to CAR-iNKT cells lacking the cytokine

The technology has been published in the prestigious, peer reviewed journal **Nature Communications**

[nature](#) > [nature communications](#) > [articles](#) > [article](#)

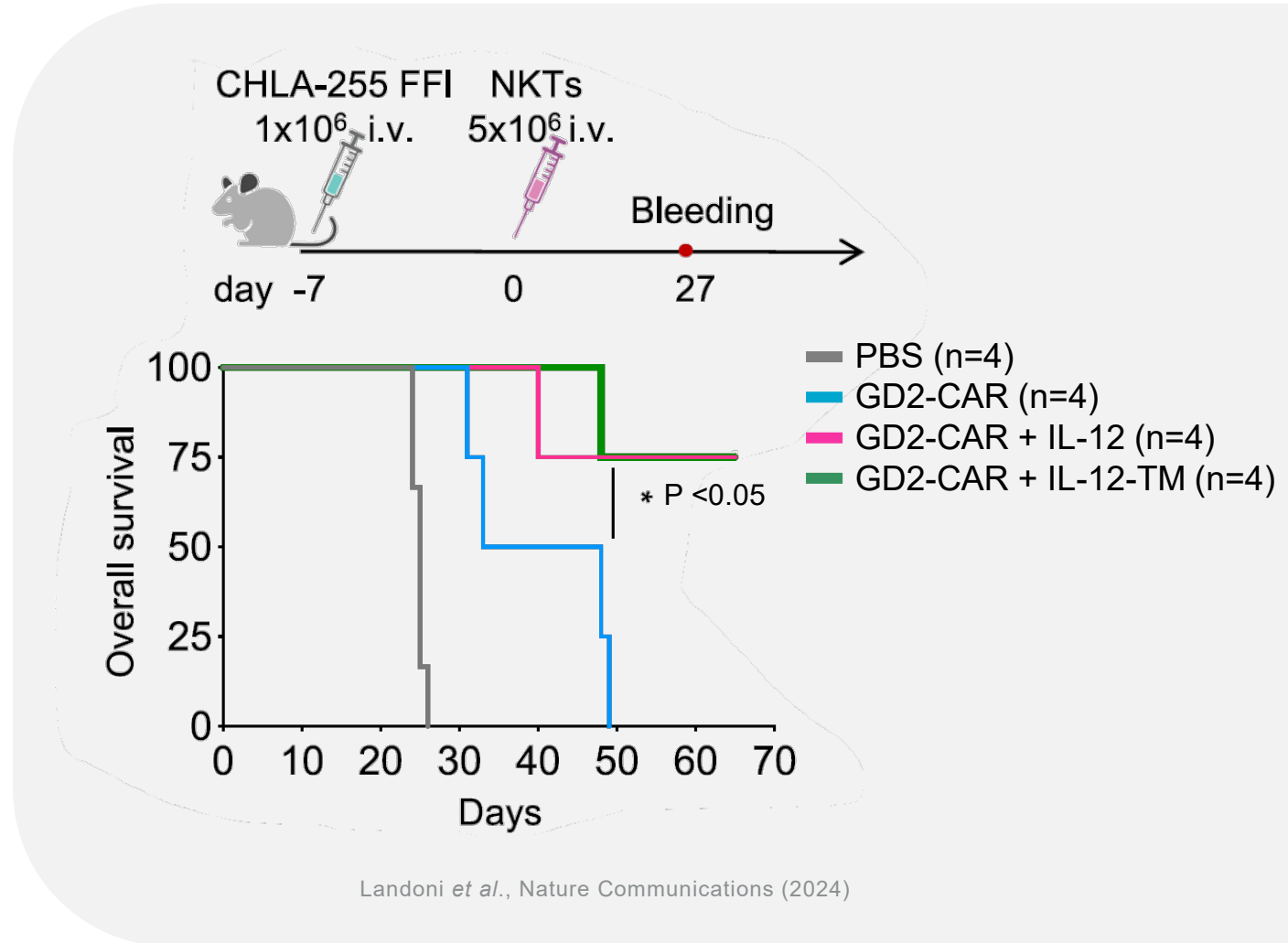
Article | [Open access](#) | [Published: 02 January 2024](#)

**IL-12 reprograms CAR-expressing natural killer T cells to long-lived Th1-polarized cells with potent antitumor activity**

# Key benefits of IL-12-TM for CAR-iNKT cells

IL-12-TM enhances antitumor activity of CAR-iNKT cells

- Tumour cells expressing GD2 and were intravenously delivered into mice before treatment with CAR-iNKT cells
- Mice were treated with:
  - PBS (saline)
  - GD2-CAR
  - GD2-CAR + IL-12
  - GD2-CAR + IL-12-TM
- After 60 days, only mice treated with GD2-CAR + IL-12 or IL-12-TM remained alive
- IL-12-TM enhances CAR-iNKT cell numbers and antitumour activity



Landoni *et al.*, Nature Communications (2024)

# Key benefits of IL-12-TM for CAR-iNKT cells

We expect IL-12-TM to enhance Arovella's CAR-iNKT cell platform

## Increases CAR-iNKT cell numbers

IL-12-TM prolongs persistence of CAR-iNKT cells. Cells continue to proliferate and increase in number.



## IL-12-TM is not released from CAR-iNKT cells

IL-12-TM is not released from CAR-iNKT cells and is expected to be safer than secreted IL-12.



## Enhances CAR-iNKT cell antitumour activity

IL-12-TM enhances CAR-iNKT antitumor activity against solid tumour cancers such as neuroblastoma.





ASX:ALA



**Thank You**

**Dr. Michael Baker**

CEO & Managing Director

Email: [investor@arovella.com](mailto:investor@arovella.com)

Mobile: +61 403 468 187



ersonal use only



# Cell therapy deal references

1. <https://www.astellas.com/en/news/28271>
2. <https://www.astrazeneca.com/media-centre/press-releases/2023/astrazeneca-to-acquire-gracell-furthering-cell-therapy-ambition-across-oncology-and-autoimmune-diseases.html>
3. <https://www.astrazeneca.com/media-centre/press-releases/2023/astrazeneca-cell-and-gene-therapy-deal-w-collectis.html>
4. <https://www.businesswire.com/news/home/20230815091930/en/Precision-BioSciences-Completes-Strategic-Transaction-with-Imugene-for-Azer-Cel-in-Cancer>
5. <https://www.astellas.com/en/news/28271>
6. <https://www.jnj.com/janssen-enters-worldwide-collaboration-and-license-agreement-with-cellular-biomedicine-group-to-develop-next-generation-car-t-therapies>
7. <https://www.astrazeneca.com/media-centre/press-releases/2023/acquisition-of-neogene-therapeutics-completed.html>
8. <https://www.gilead.com/news-and-press/press-room/press-releases/2022/12/kite-and-arcellx-announce-strategic-collaboration-to-co-develop-and-co-commercialize-late-stage-clinical-cart-ddbcma-in-multiple-myeloma>
9. <https://www.fiercebiotech.com/biotech/genentech-pays-70m-access-arsenals-armoury-t-cell-tools-quest-solid-tumor-car-t>
10. <https://www.prnewswire.com/news-releases/poseida-therapeutics-announces-strategic-global-collaboration-with-roche-focused-on-allogeneic-car-t-cell-therapies-for-hematologic-malignancies-301598555.html>
11. <https://www.adaptimmune.com/investors-and-media/news-center/press-releases/detail/197/adaptimmune-enters-into-a-strategic-collaboration-with>
12. <https://www.gilead.com/news-and-press/press-room/press-releases/2021/8/kite-and-appia-bio-announce-collaboration-to-research-and-develop-allogeneic-cell-therapies-for-cancer>
13. [https://www.nasdaq.com/articles/athenex-snaps-up-kuur-therapeutics-for-\\$185m-street-sees-133.7-upside-2021-05-05](https://www.nasdaq.com/articles/athenex-snaps-up-kuur-therapeutics-for-$185m-street-sees-133.7-upside-2021-05-05)
14. <https://eternatx.com/news/brooklyn-immunotherapeutics-completes-acquisition-of-eterna-therapeutics/>