

**ASX: ALA**

Arovella Therapeutics Limited  
ACN 090 987 250



## ASX Release

3 November 2023

## EMERGING ASX GEMS CONFERENCE PRESENTATION

### Highlights:

- **Arovella to present at The Capital Network's Emerging ASX Gems Conference today**

**MELBOURNE, AUSTRALIA 3 November 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 the Capital Network's Emerging ASX Gems conference.

Dr Baker will provide an overview of Arovella's iNKT cell therapy platform and how its 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>.

<b>Event</b>	Emerging ASX Gems
<b>Date</b>	Friday 3 November 2023
<b>Time</b>	9am – 11:30am AEDT
<b>Format</b>	Webinar
<b>Register</b>	The event is free and investors can register online to view the presentation here: <a href="https://www.eventbrite.com/e/739003237577?aff=oddtcreator">https://www.eventbrite.com/e/739003237577?aff=oddtcreator</a>

The event will livestream from 9am – 11:30am AEDT and can be accessed at any time on The Capital Network's YouTube.

*Release authorised by the Managing Director and Chief Executive Officer of Arovella Therapeutics Limited, Dr Michael Baker.*

**Dr Michael Baker**  
**Chief Executive Officer & Managing Director**  
**Arovella Therapeutics Ltd**  
Tel +61 (0) 403 468 187  
[investor@arovella.com](mailto:investor@arovella.com)

**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. 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. iNKT cells also contain an invariant T cell receptor (iTTCR) that targets  $\alpha$ -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;  **$\alpha$ GalCer** – 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



# Investor Presentation

ASX: ALA

October 2023

ten  
thecapitalnetwork

*Emerging ASX Gems*



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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 2030<sup>1</sup>

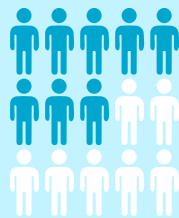


## Cure

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



## Strong Sales



**40-60%**

Patients relapse post-CAR-T therapy<sup>2</sup>

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

- <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://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://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>





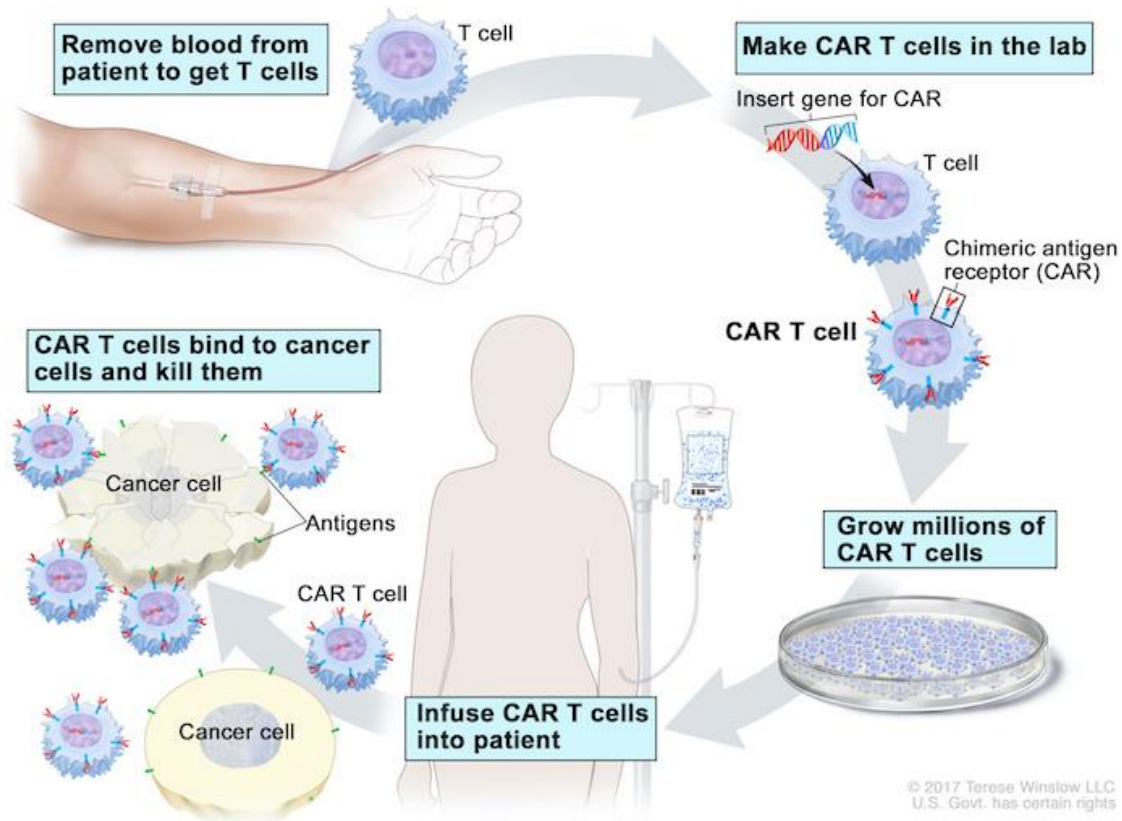
Emily Whitehead - Celebrating 10 Years of CAR T-Cell Therapy

<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.

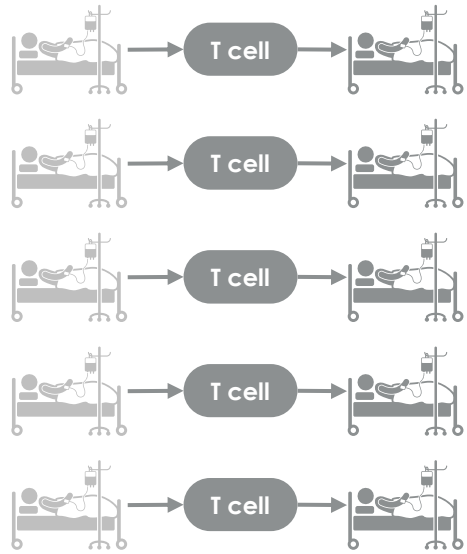


## CAR-T cells find & kill tumour cells

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

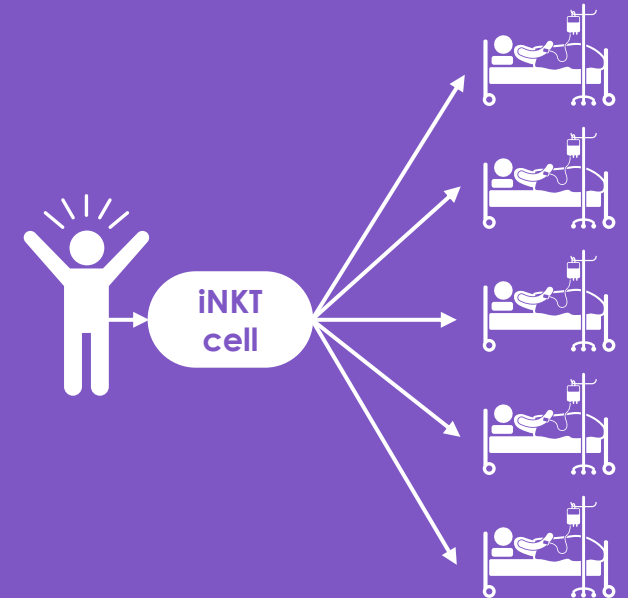
**Limited centres can collect and manufacture**



Limits patient access

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

with potential for improved efficacy

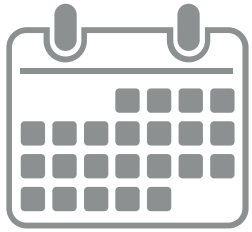


## Allogeneic

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

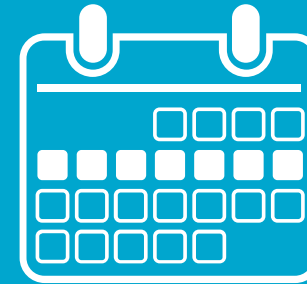
**Manufacturing  
run failures  
can occur**



Further increasing  
the time to treatment  
(and cost)

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

with potential for improved efficacy



**1 week**

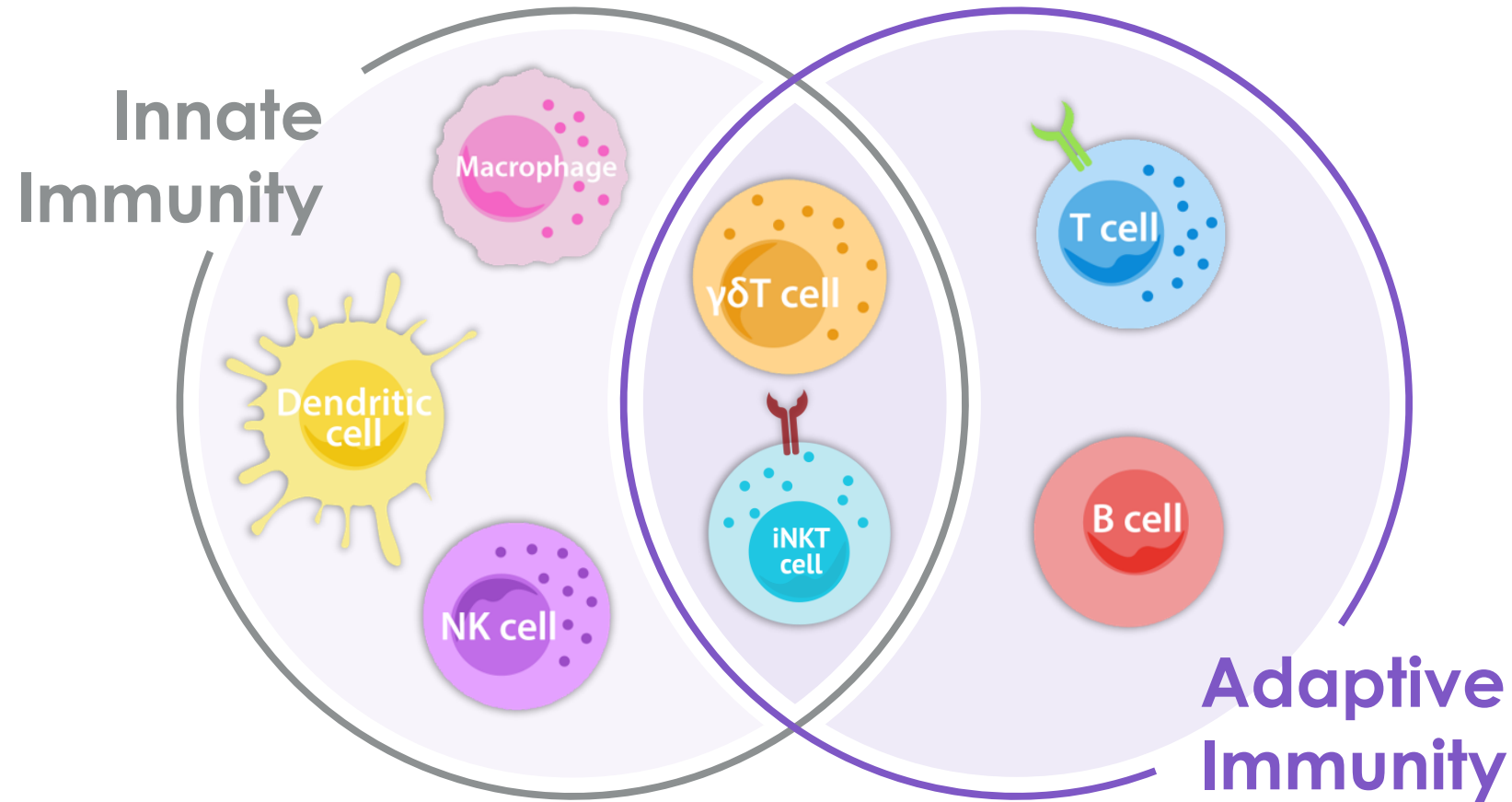


Patients ready to dose  
within 1 week



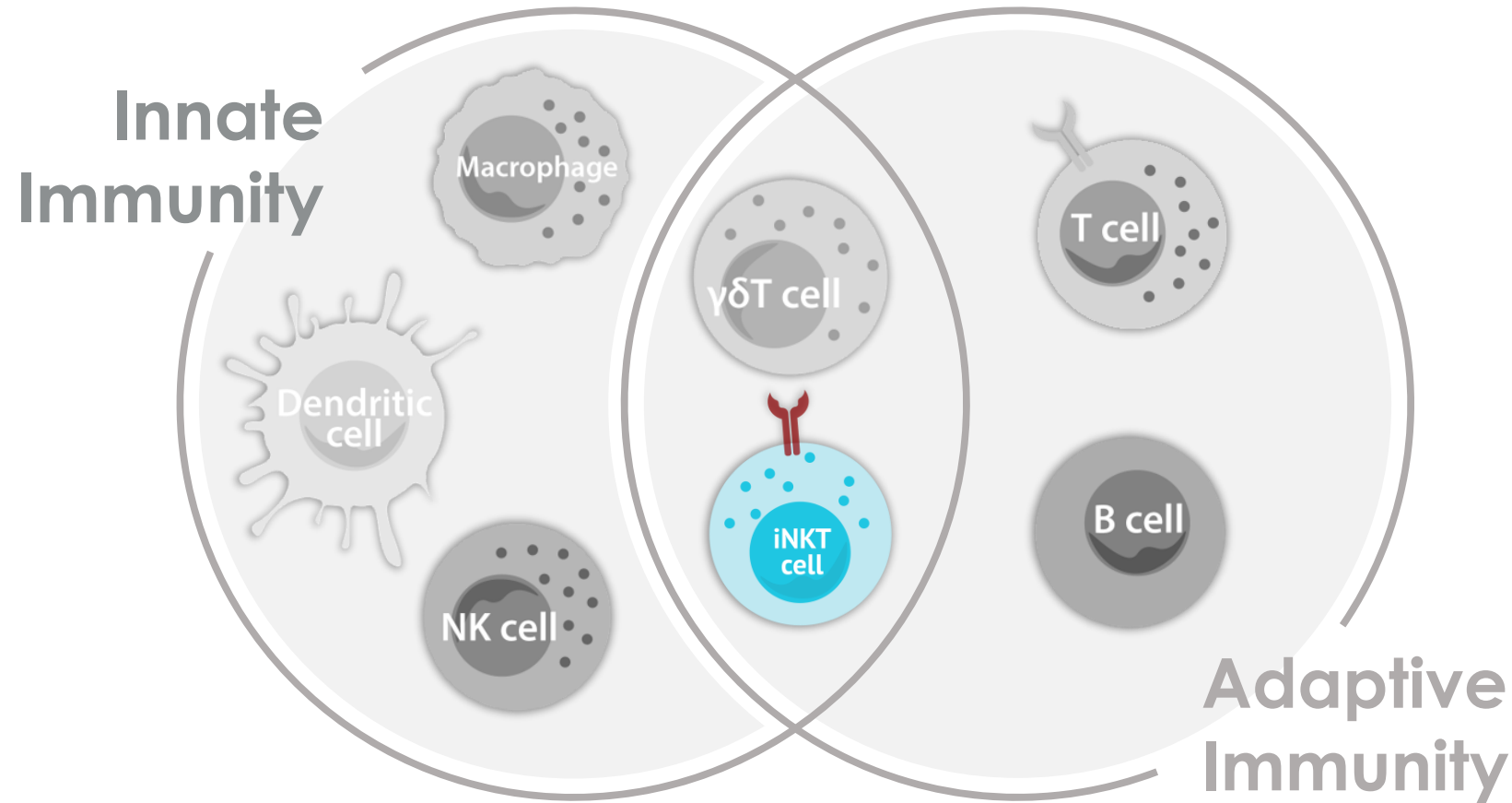
# Introducing invariant Natural Killer T (iNKT) cells

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

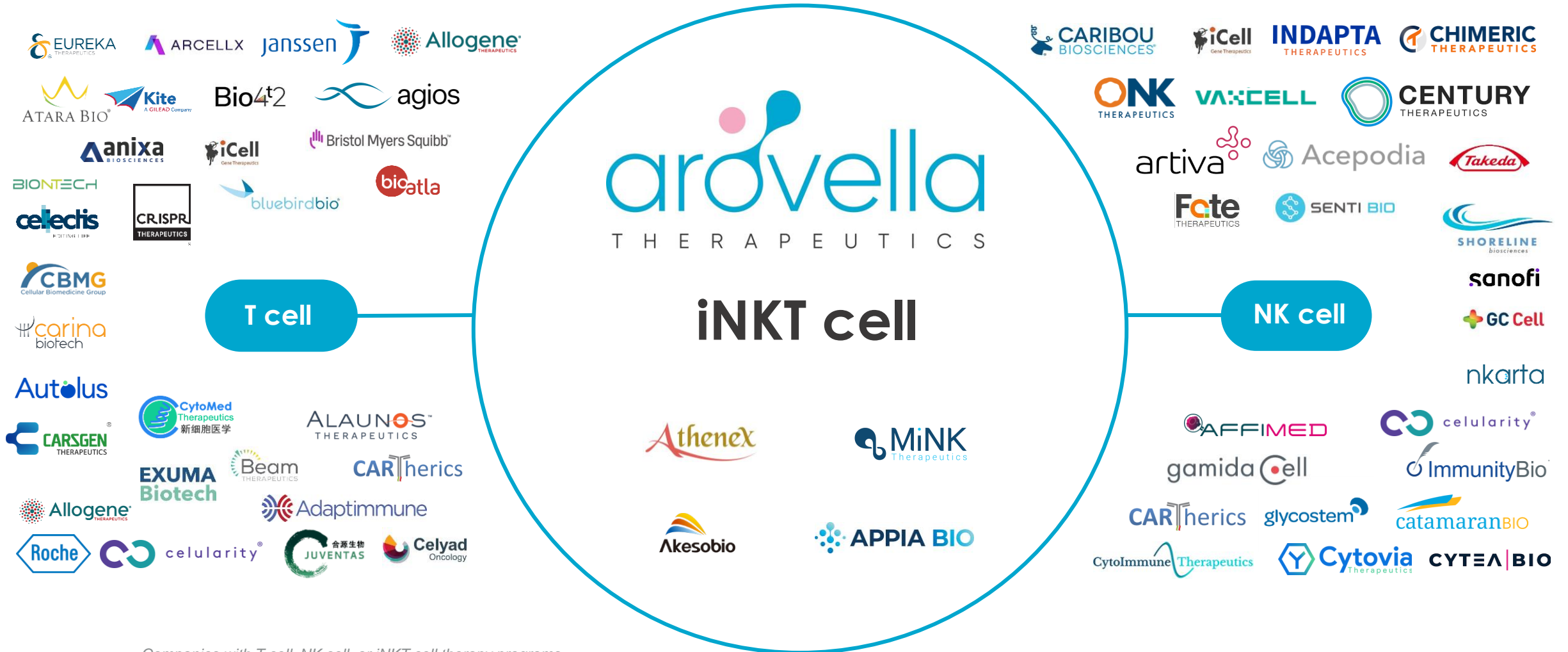
- Don't cause graft versus host disease (GvHD)

## 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 <sup>1</sup>	 <b>IMUGENE</b> Developing Cancer Immunotherapies	 <b>PRECISION BIOSCIENCES</b>	T Cell	Phase 1b	\$21	\$206	\$227
Aug-23	Strategic Investment (ROFR) <sup>2</sup>	 <b>astellas</b>	 <b>POSEIDA THERAPEUTICS</b>	T Cell	Phase 1	\$25	\$0	\$25
May-23	License	 <b>janssen</b>	 <b>CBMG</b> Cellular Biomedicine Group	T Cell	Phase 1b	\$245	<i>undisclosed</i>	
Jan-23	Acquisition	 <b>AstraZeneca</b>	 <b>neogenetix THERAPEUTICS</b>	T Cell	Phase I	\$200	\$120	\$320
Oct-22	Development collaboration <sup>3</sup>	 <b>GILEAD</b>	 <b>ARCELLX</b>	T Cell	Phase II	\$225	<i>undisclosed</i>	
Sep-22	Research collaboration	 <b>Genentech</b> A Member of the Roche Group	 <b>-ArsenalBio™</b>	T Cell	Preclinical	\$70	<i>undisclosed</i>	
Aug-22	Licence & strategic collaboration	 <b>Roche</b>	 <b>POSEIDA THERAPEUTICS</b>	T Cell	Phase I	\$110	\$110	\$220
Sep-21	Development collaboration	 <b>Genentech</b> A Member of the Roche Group	 <b>Adaptimmune</b>	T Cell	Preclinical	\$150	\$150	\$300
Aug-21	Research collaboration	 <b>GILEAD</b>	 <b>APPIA BIO</b>	iNKT Cell	Preclinical	<i>undisclosed</i>	<i>undisclosed</i>	\$875
May-21	Acquisition	 <b>Athenex</b>	 <b>kuur THERAPEUTICS</b>	iNKT Cell	Phase I	\$70	\$115	\$185
Jun-21	Acquisition	 <b>eterna</b>	 <b>Novellus THERAPEUTICS</b>	Multiple	Preclinical	\$125	\$0	\$125
Dec-19	Acquisition	 <b>astellas</b>	 <b>XYPHOS</b>	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 <sup>1</sup>	\$81.5 million
Shares on issue	906.31 million
52-week low / high <sup>1</sup>	\$0.020 / \$0.105
Cash Balance (September 30 2023) <sup>2</sup>	\$5.32 million

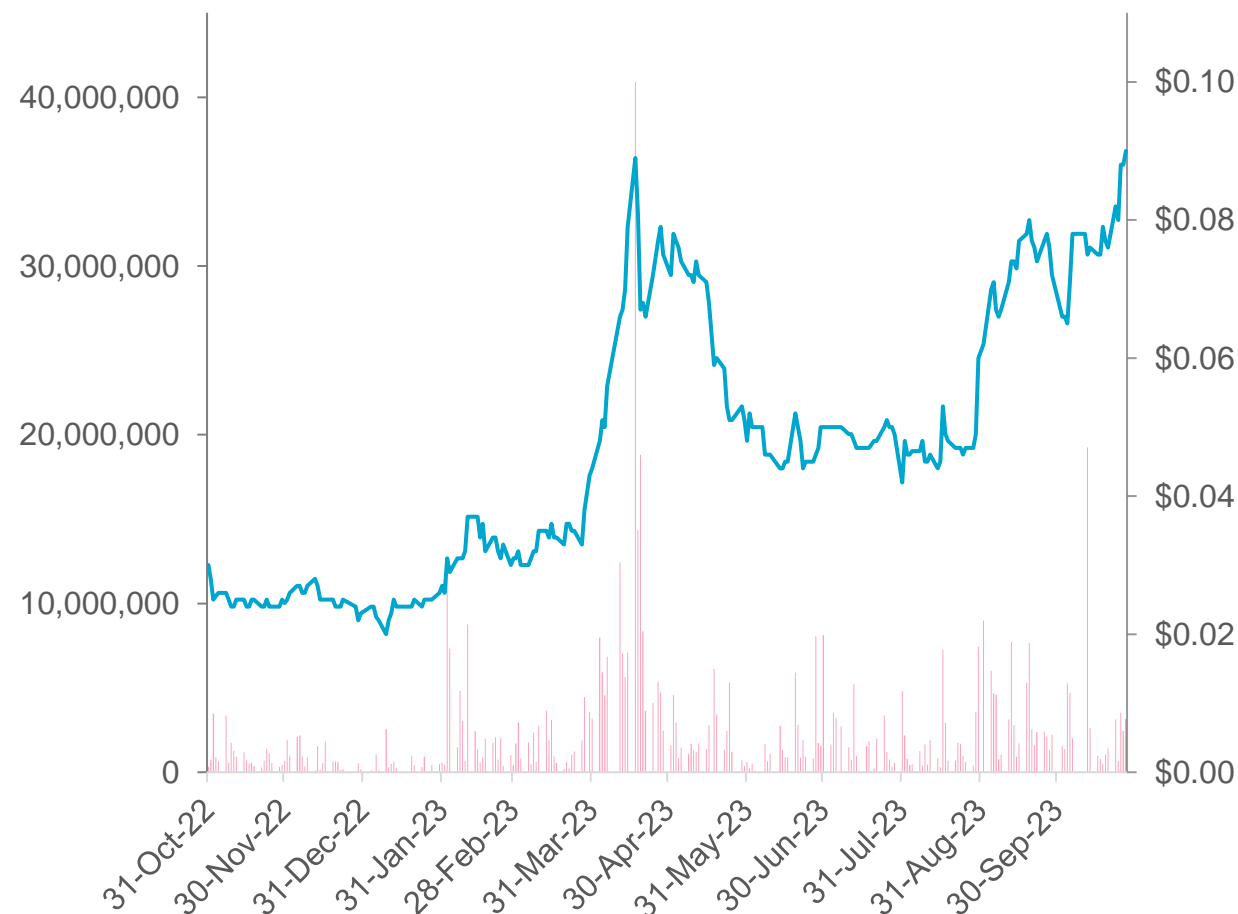
## Major Shareholders

Shareholder	Ownership (%) <sup>1</sup>
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%)

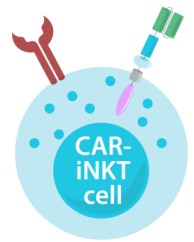
1. As of 27 October 2023

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

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



# Arovella's expanding pipeline



CD19-CAR



CD19-CAR



Oncolytic virus  
CF33-CD19



Novel Targets  
To target solid tumours

ALA-101

ALA-101 + onCARlytics

CLDN18.2 and DKK1

Cytokine Technology



Non-Hodgkin's  
Lymphoma



Head and  
Neck Cancer



Prostate  
Cancer



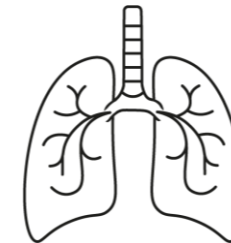
Brain  
Metastases



Triple negative  
breast cancer



Pancreatic  
Cancer



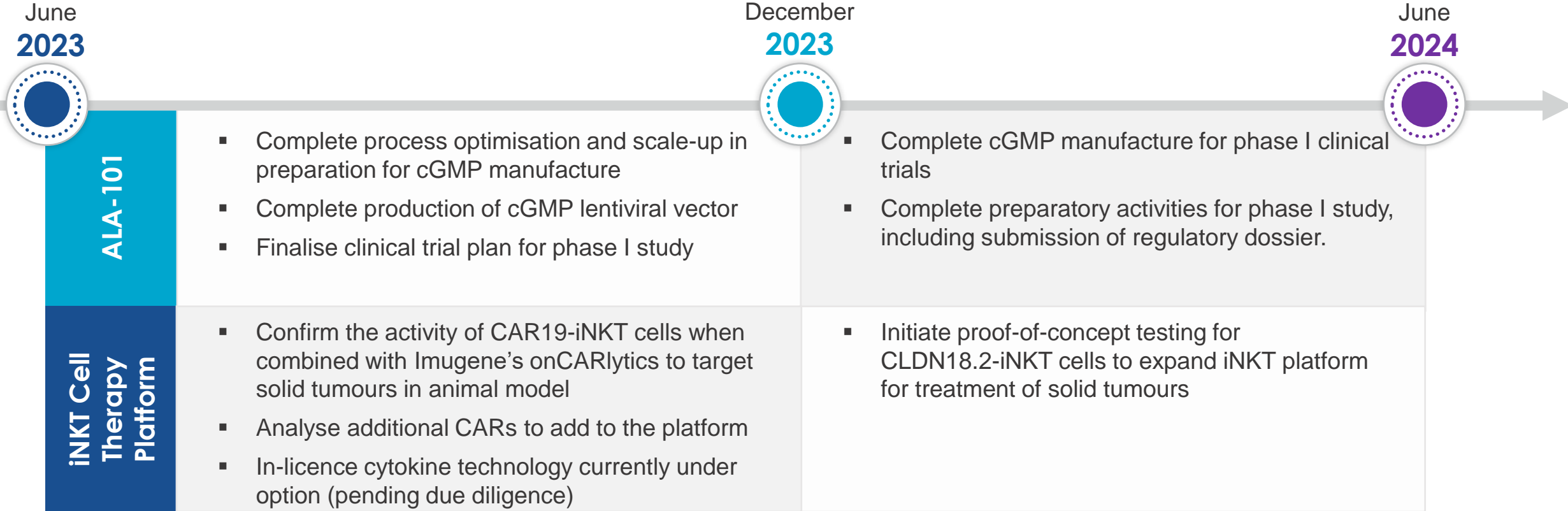
Lung Cancer



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

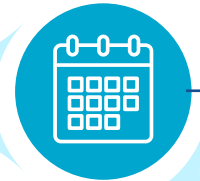
Expand the use of the iNKT platform to treat solid tumours

# 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

## Arovella has an expanding pipeline

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



# Arovella's CAR-iNKT Cell Platform



## Improved manufacturing logistics

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



## 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



## 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



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# Thank You

**Dr. Michael Baker**

CEO & Managing Director

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

Mobile: +61 403 468 187



# Cell therapy deal references

1. <https://www.businesswire.com/news/home/20230815091930/en/Precision-BioSciences-Completes-Strategic-Transaction-with-Imugene-for-Azer-Cel-in-Cancer>
2. <https://www.astellas.com/en/news/28271>
3. <https://www.jnj.com/janssen-enters-worldwide-collaboration-and-license-agreement-with-cellular-biomedicine-group-to-develop-next-generation-car-t-therapies>
4. <https://www.astrazeneca.com/media-centre/press-releases/2023/acquisition-of-neogene-therapeutics-completed.html>
5. <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>
6. <https://www.fiercebiotech.com/biotech/genentech-pays-70m-access-arsenals-armoury-t-cell-tools-quest-solid-tumor-car-t>
7. <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>
8. <https://www.adaptimmune.com/investors-and-media/news-center/press-releases/detail/197/adaptimmune-enters-into-a-strategic-collaboration-with>
9. <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>
10. <https://ir.athenex.com/news-releases/news-release-details/athenex-acquire-kuur-therapeutics-expand-cell-therapy>
11. <https://eternatx.com/news/brooklyn-immunotherapeutics-completes-acquisition-of-eterna-therapeutics/>
12. <https://www.astellas.com/en/news/15516>