



IMUGENE

Developing Cancer Immunotherapies

ASX:IMU

Leading Innovation in Cancer Treatment

Bell Potter Healthcare Conference
November 2024



Disclaimer

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 Imugene 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.

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.

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.

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.

Any opinions expressed reflect the Company's position at the date of this presentation and are subject to change

International offer restrictions – 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. In particular, the New Shares have not been, and will not be, registered under the US Securities Act of 1933 and may not be offered or sold in the United States except in transactions exempt from, or not subject to, the registration requirements of the US Securities Act and applicable US state securities laws. The distribution of this presentation in jurisdictions outside Australia may be restricted by law and any such restrictions should be observed.

Imugene is a clinical stage cancer company developing three drug products in CAR T cell therapy and oncolytic viruses.

Investment Highlights

Market Capitalisation

As of 13 November 2024

A\$342M

Cash Position

As of 30 September 2024

A\$54.3M (Pro-forma)

4 PLATFORM TECHNOLOGIES

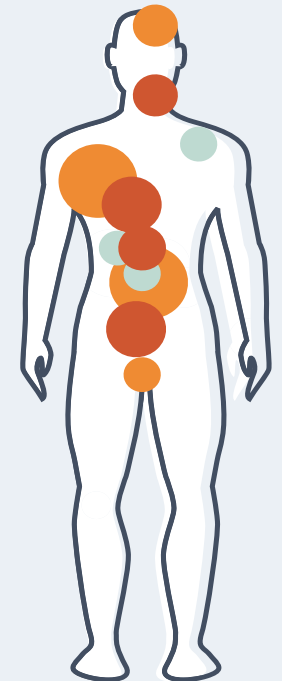
Allo CAR T Cell Therapy
CF33 Oncolytic Virus
onCARlytics
B Cell Immunotherapy

**LONG-
LIFE
PATENT
PORTFOLIO**



DISEASE AREAS

Blood cancers
Breast (TNBC)
Lung (NSCLC)
Gastric
Gastroesophageal
Colorectal (CRC)
Melanoma
Head and Neck
Cholangiocarcinoma
Pancreatic
Bladder



4 CLINICAL STUDIES

> 200 cancer patients dosed

azer-cel Ph1b DLBCL (FDA IND)
VAXINIA: Ph1 Solid Tumours (FDA IND)
onCARlytics: Ph1 Solid Tumours (FDA IND)
PD1-Vaxx: Ph2 neoPOLEM

Three Novel Cancer Technologies In Clinical Trials



azercel CD19 CAR T

Phase 1b

- Off-the-shelf drug, aka “Allo”genic
- Targeting blood cancers
- Positive Phase 1 data in 84 patients
- Currently in Phase 1b
- FDA IND



CF33 Oncolytic Virus
VAXINIA MAST Trial

Phase 1

- Novel cancer killing virus
- Targeting a range of late-stage solid cancers
- Phase 1 trial with >40 patients enrolled
- Encouraging results in bile tract cancer
- FDA IND



onCARlytics CD19
expressing virus
OASIS Trial

Phase 1

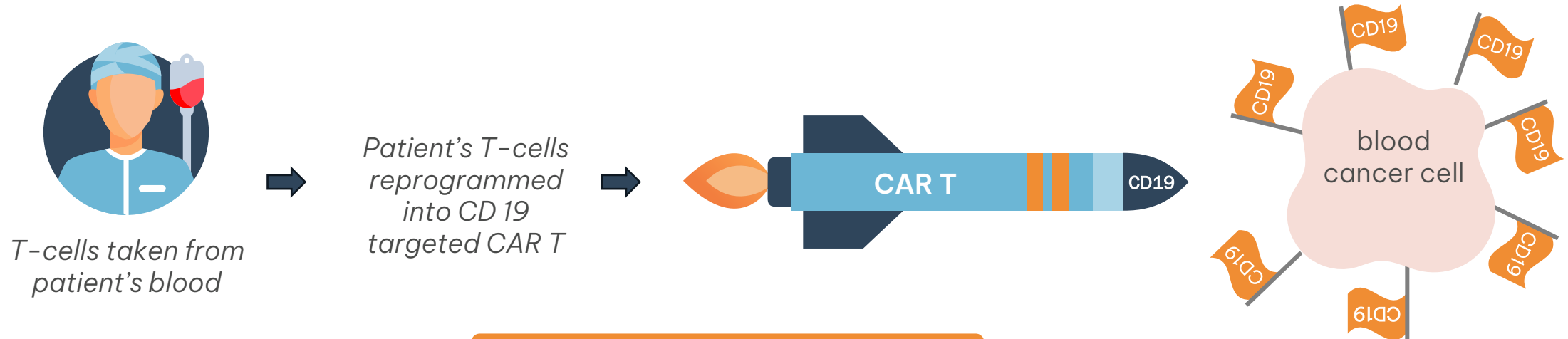
- Novel virus which acts as a CD19 target in solid cancers
- Makes solid cancers visible to CD19 drugs
- Currently in Phase 1 in combination with Blinatumomab (Approved CD19 drug in blood cancers) in solid cancers
- FDA IND

AZER-CEL CD19 CAR T FOR BLOOD CANCER

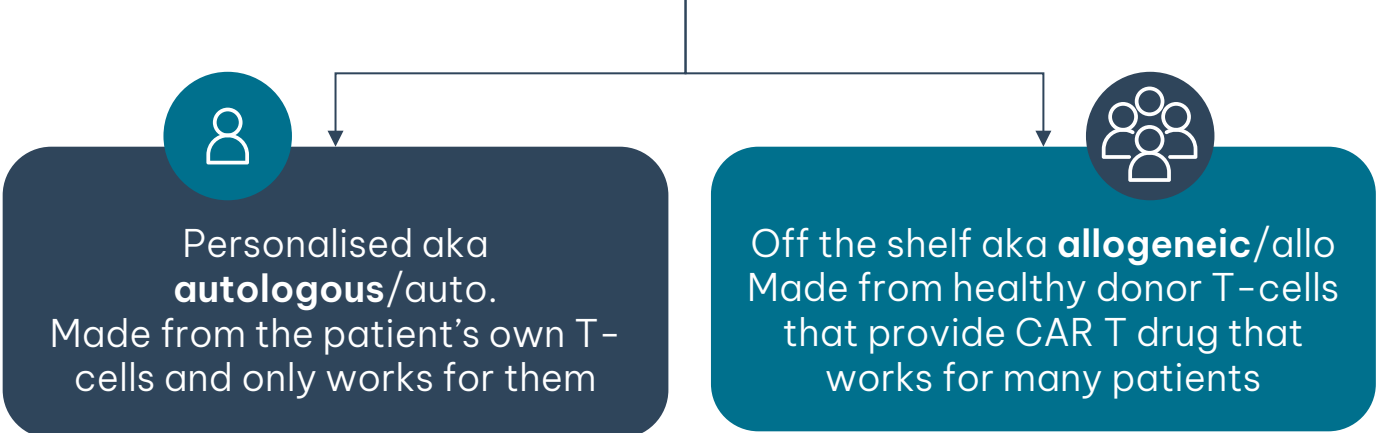


What is Autologous CAR T Therapy?

A cancer treatment in which a patient's T-cells are reprogrammed in a laboratory so that they become like a guided missile to attack certain proteins (ie CD19) on the cancer cells - CAR T stands for chimeric antigen receptor T-cell. Currently many CD19 targeted auto CAR Ts are approved and only in blood cancers.



Two types of CAR Ts



What is Imugene's azer-cel Allogeneic CAR T?



Azer-cel is an **'off-the-shelf' CD19 CAR T drug**, aka allogeneic, which is made from healthy donor T-cells that provide CAR T drug that works for **many patients**

Azer-cel is currently enrolling patients with a rare form of blood cancer known as diffuse large B cell lymphoma (DLBCL) **for patients who have failed approved treatments**

Approximately **30,000** cases (US) per year of DLBCL blood cancer¹

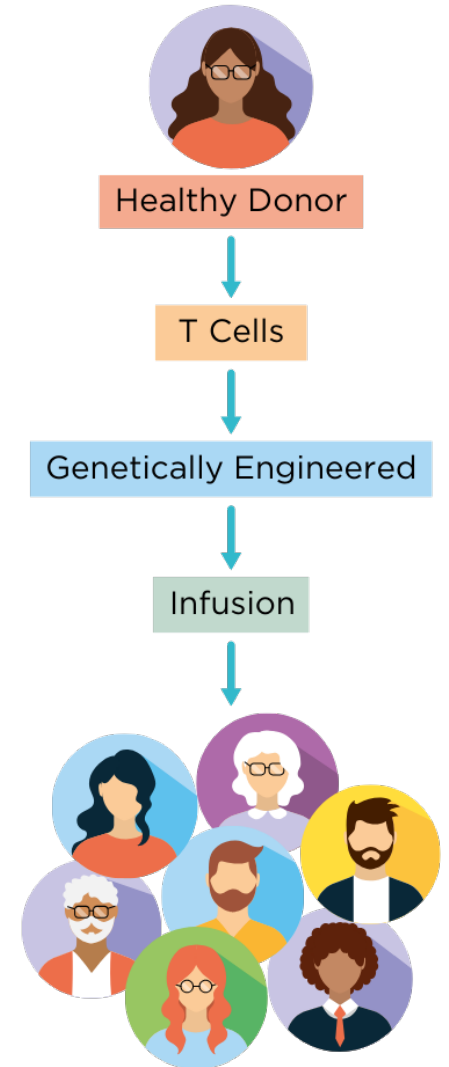
CAR T drugs have **revolutionised treatments** for blood cancer

The technology was acquired in September 2023

A Phase 1 clinical trial in 84 patients was completed across twelve leading cancer centres in the US

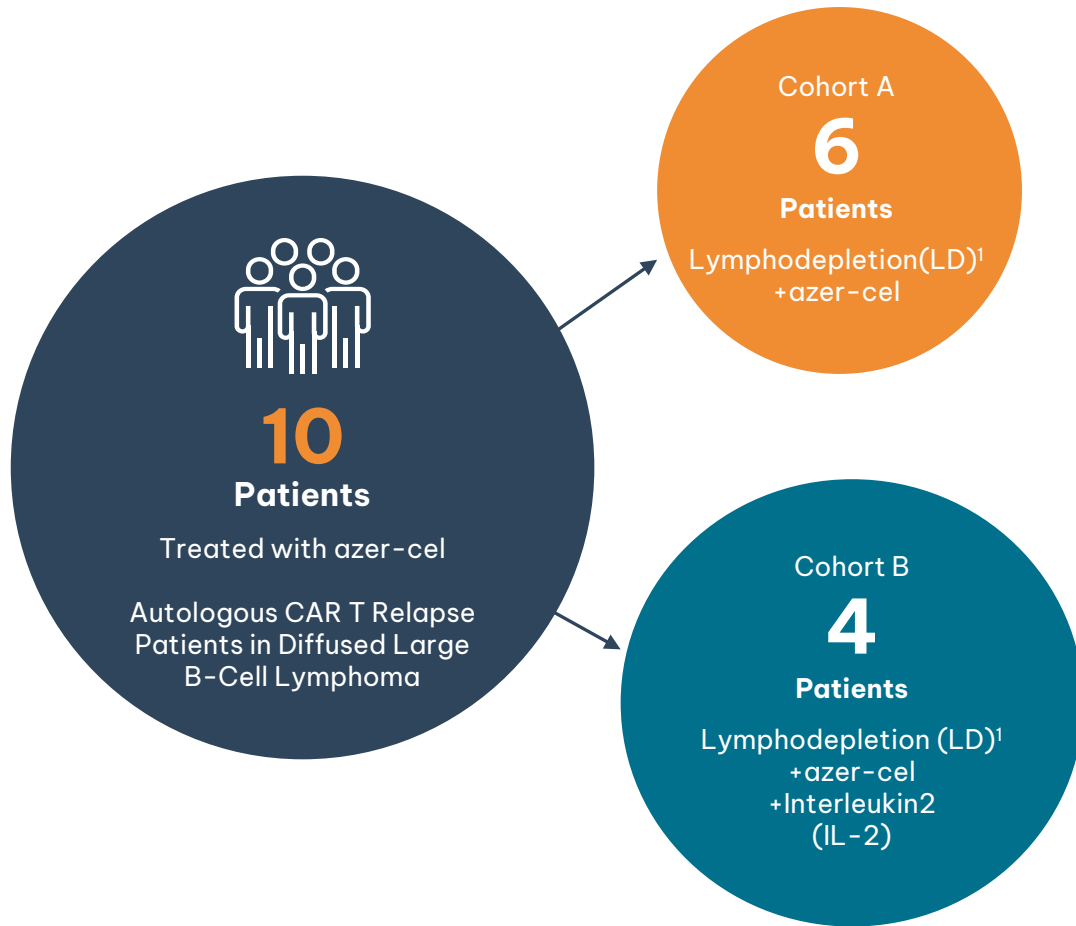
The large Phase 1 trial demonstrated safety and **encouraging signs of efficacy**

Currently in a Phase 1b trial in leading US and Australian centres



¹<https://ascopost.com/news/november-2023/novel-strategy-may-improve-outcomes-in-patients-with-treatment-resistant-dlbcl/>

67% Complete Response Rates Observed in Phase 1b Cohort B



	Evaluable patients: Cohort A+B (N=9)	Evaluable patients: Cohort A (N=6)	Evaluable patients: Cohort B (N=3)
Overall Response Rate %	4 (44%)	2 (33%)	2 (67%)
Complete Response %	3 (33%)	1 (17%)	2 (67%)
Best Durability (Time of response)		<60 days	>120 days on going

Cohort B Results

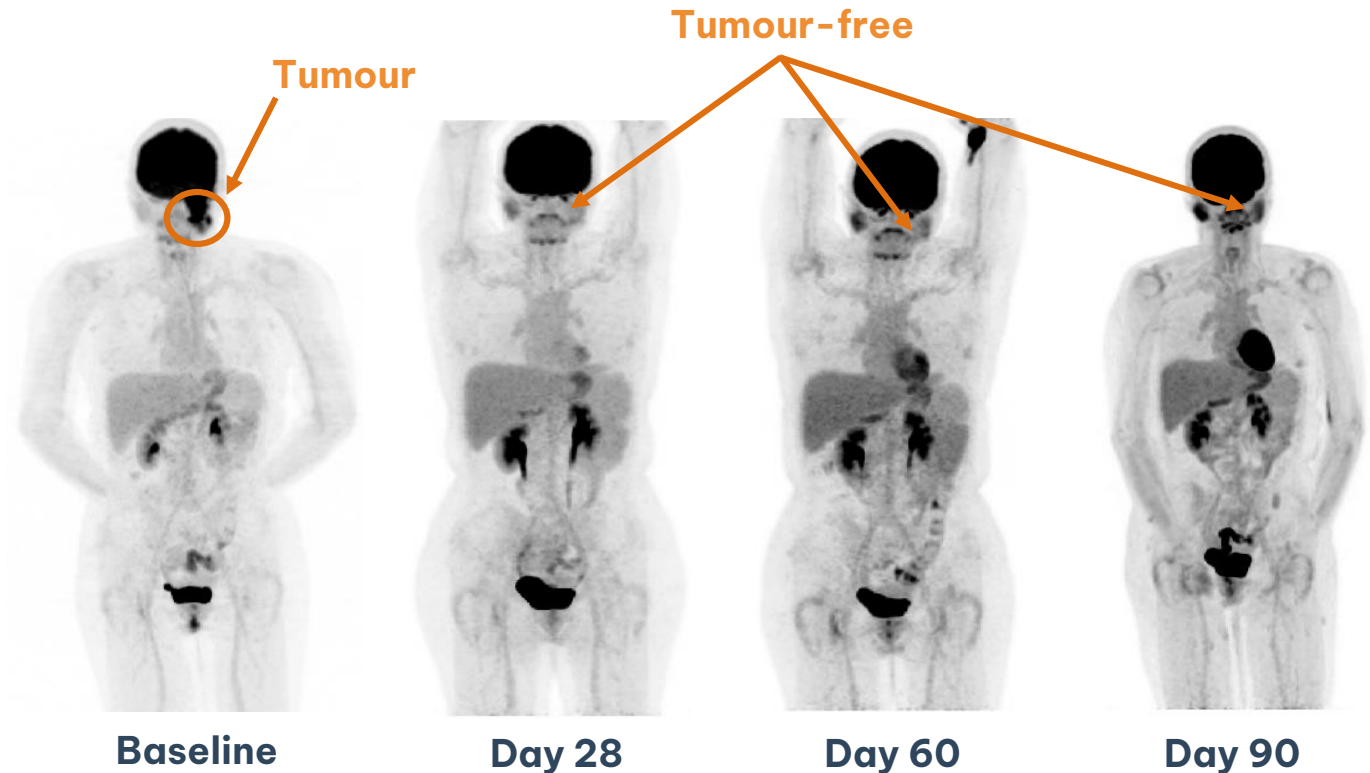
- The first 2 patients treated achieved a complete response (CR), 1 patient had stable disease (SD), 1 patient yet to be evaluated
- Responses were seen in patients who failed multiple prior treatments, including autologous CAR T therapies
- Phase 1b trial continues to enrol patients into Cohort B across leading cancer centres in the U.S. and Australia including, Columbia University, University of Minnesota, Emory and Moffitt Cancer Centres and Royal Price Alfred Hospital

¹Lymphodepletion(LD)/chemotherapy: Aug Cy: Flu 30mg/m2 x 3d, Cy 750mg/m2 x 3d

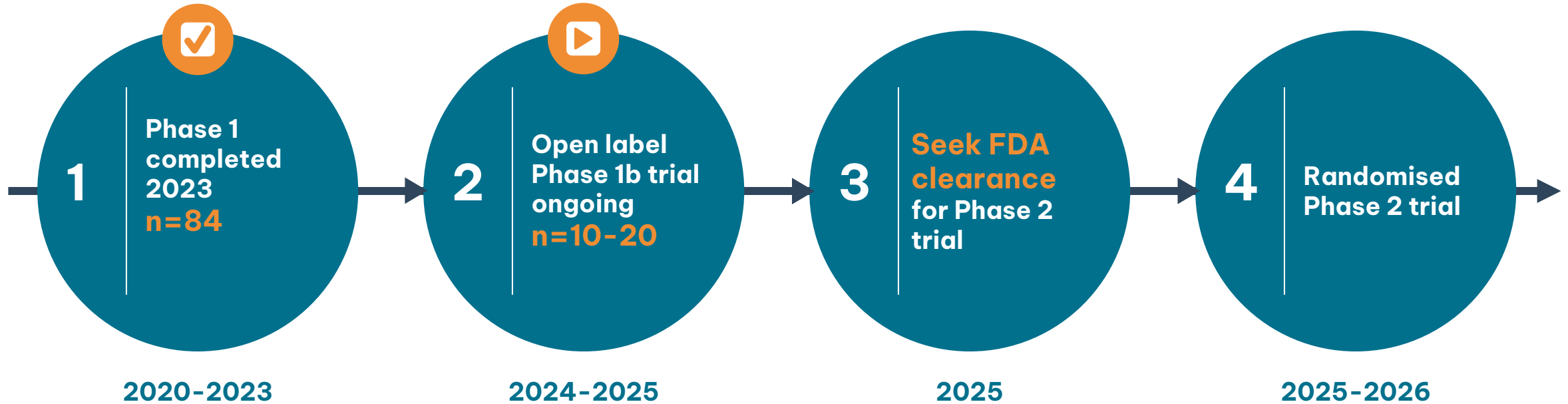
PET Scans Of Complete Response Patient

Patient Treatment Summary

- 47 yo female, first diagnosed with High-grade B-cell lymphoma (HGBCL), stage IV in Jul 2022. Treated at Emory University.
- Prior to azer-cel, **patient failed 4 prior lines of therapy**; R-CHOP; R-DHAP, Yescarta, and Prednisone
- Pathologist report revealed neoplastic cells were positive (90%) for CD19 by flow
- Azer-cel treatment regimen
 - Augmented Cy conditioning regimen (750 mg/m²/d (3d) Cyclophosphamide i.v. + 30 mg/m²/d (3d) fludarabine iv) + low dose SC IL-2
- **Notable Safety Events—No CRS/ICANS**
- Response – CR @ D28, D60 & D90



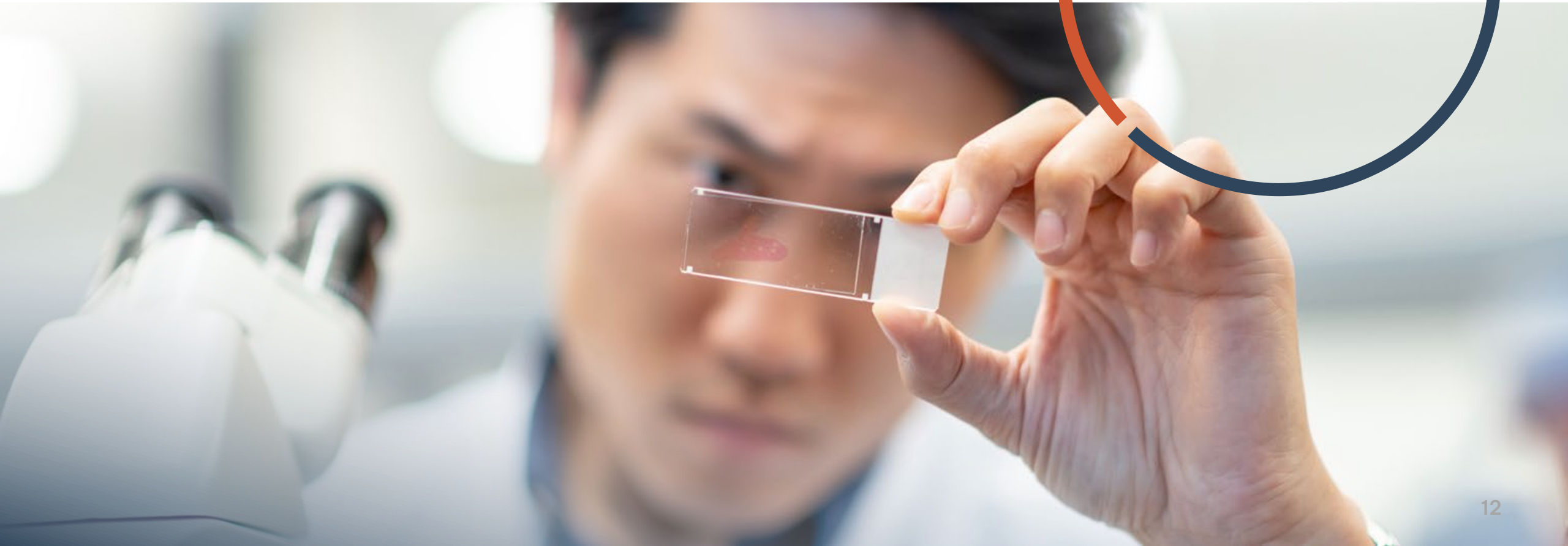
Azer-cel Clinical Development Strategy



Milestones:

- Preliminary early DLBCL Phase 1b data update
- Diffused Large B-Cell Lymphoma (DLBCL) Phase 1b interim data update
- Target regulatory meeting with FDA
- FPI in Phase 2 trial

CF33 VAXINIA ONCOLYTIC VIRUS

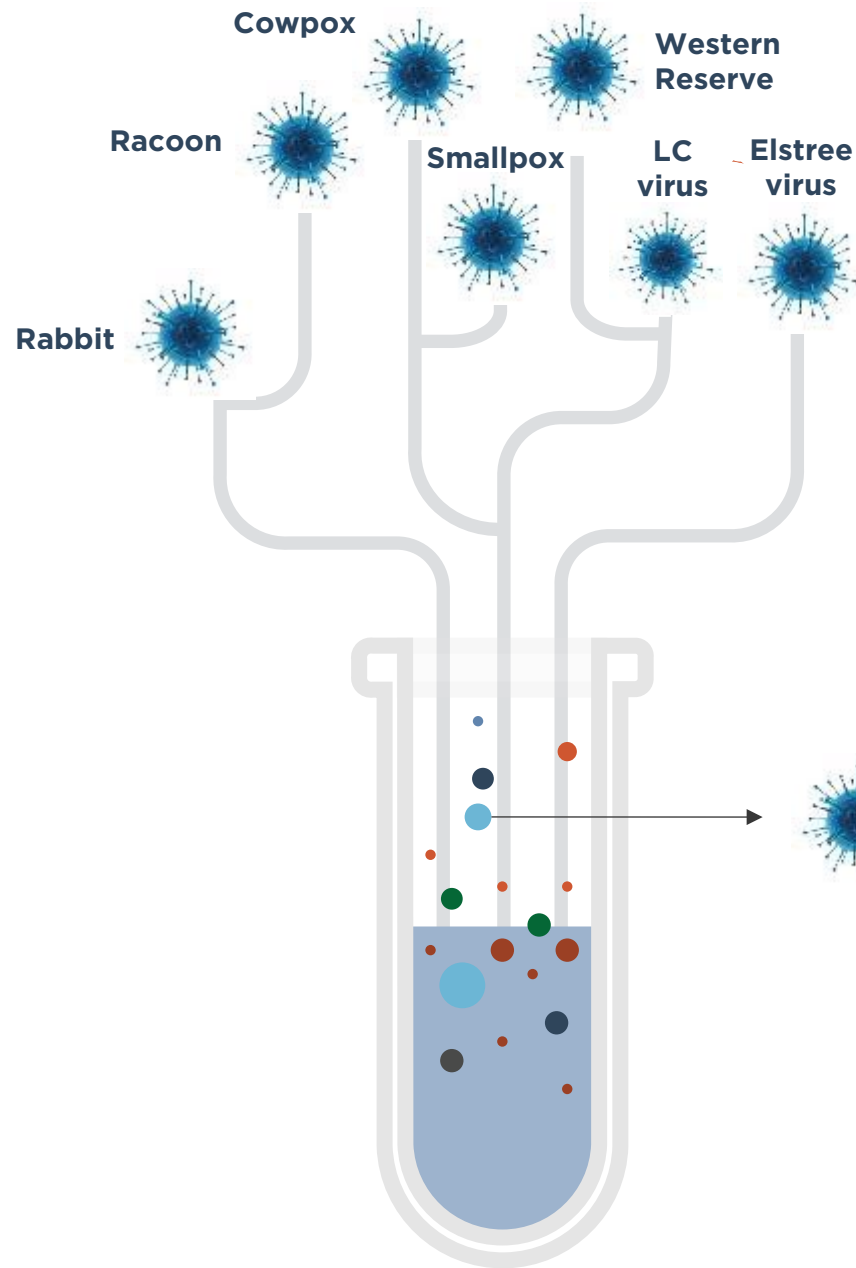


WHAT IS THE CF33 VIRUS & WHERE DID IT COME FROM?

Engineered next-generation virus

A synthetic virus– it does not exist in nature

CF33 is an anti-cancer virus which only attacks cancer cells

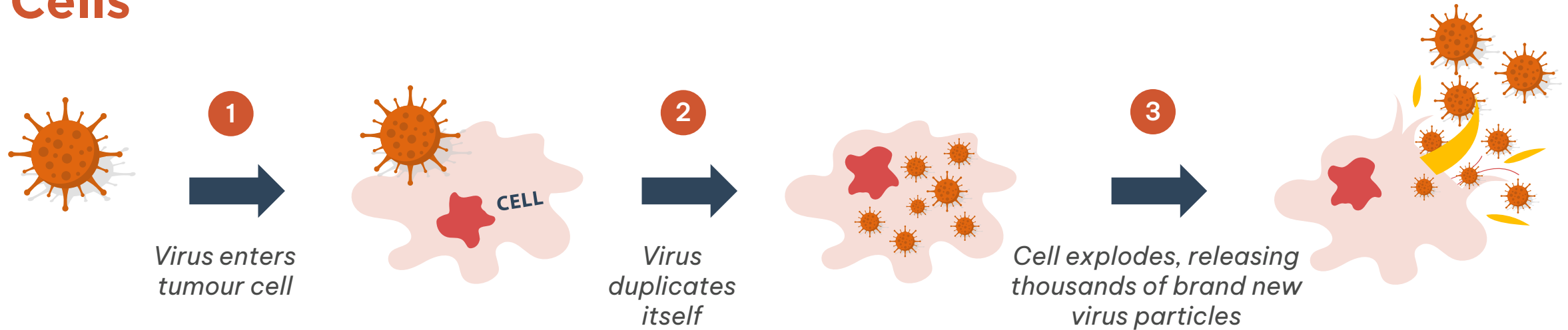


 **CF33 Oncolytic Virus**
IMUGENE

CF33
Invented by
Professor Yuman Fong



CF33 VAXINIA Can Infect and Kill Cancer Cells



Engineering enhancements

- Infect and kill only cancer cells
- Carry payloads to increase killing

Multiple ways to kill cancer cells

- Direct killing
- Activation of immune cells to kill cancer cells
- Priming the tumour environment to enhance immune response¹

Precedent for approval

- Tvec approved in the United States for skin cancer (2015)
- Oncorine approved in China for head and neck cancer (2005)
- Delytact approved in Japan for brain cancer (2021)

TME: tumour microenvironment
1. Ribas et al., Cell 170:1109, 2017

Phase 1 MAST Trial – Encouraging Early Signals



Patients¹

- >40 patients have been dosed and evaluated (at least their first scan at day 42)



Disease Control So Far

- Nearly half of the evaluable patients (48%) have remained on treatment for >3 months
- 3 patients have remained on treatment for >200 days



Responses

- Patient with bile tract cancer who had a complete response (CR); ongoing remission for >2 years
- 2 patients with melanoma had partial responses (PRs); 17 patients achieved stable disease (SD)



Bile Tract Trial

- Bile tract cancer expansion trial opened based on positive response
- First cohort cleared, establishing safety



Fast Track and Orphan Drug Designation

- US FDA Fast Track Designation for bile tract cancer, which allows for faster review
- US FDA Orphan Drug Designation for bile tract cancer, which allows for further efficiencies

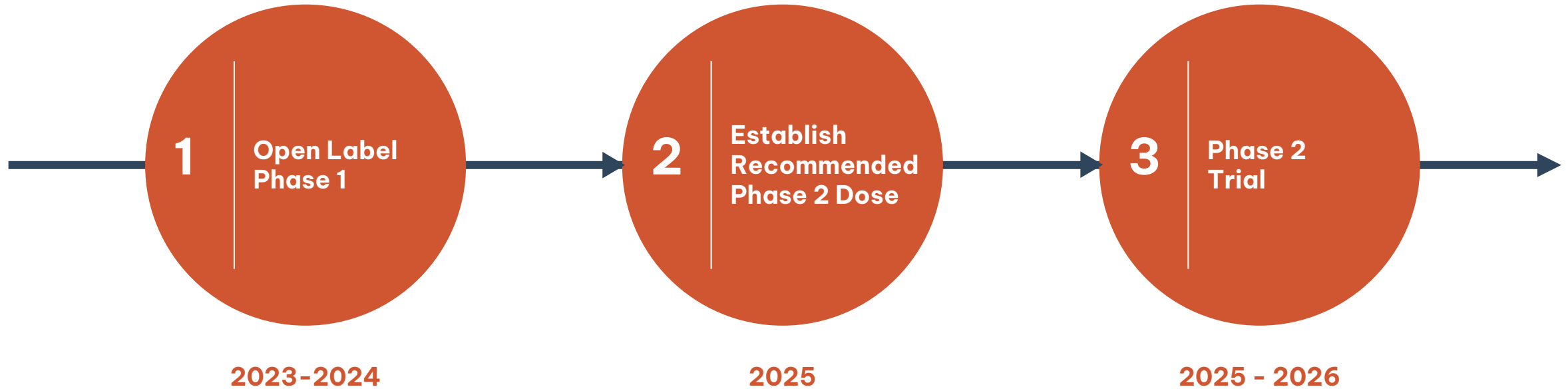


**FAST TRACK
Designation**

**Orphan Drug
Designation**

¹Preliminary study update as of June 2024; data and number of evaluable patients subject to change with full statistical analysis

MAST CF33 Clinical Development Strategy



Milestones:

- Intratumoural (IT) Second Indication Trial open
- Preliminary early Bile Tract expansion trial update
- Optimal Biological Dose Established for IT and/or Intravenous (IV) monotherapy
- Phase 2 Study Open
- Phase 2 First Patient In (FPI)

ONCARLYTICS CD19 VIRUS FOR SOLID CANCERS



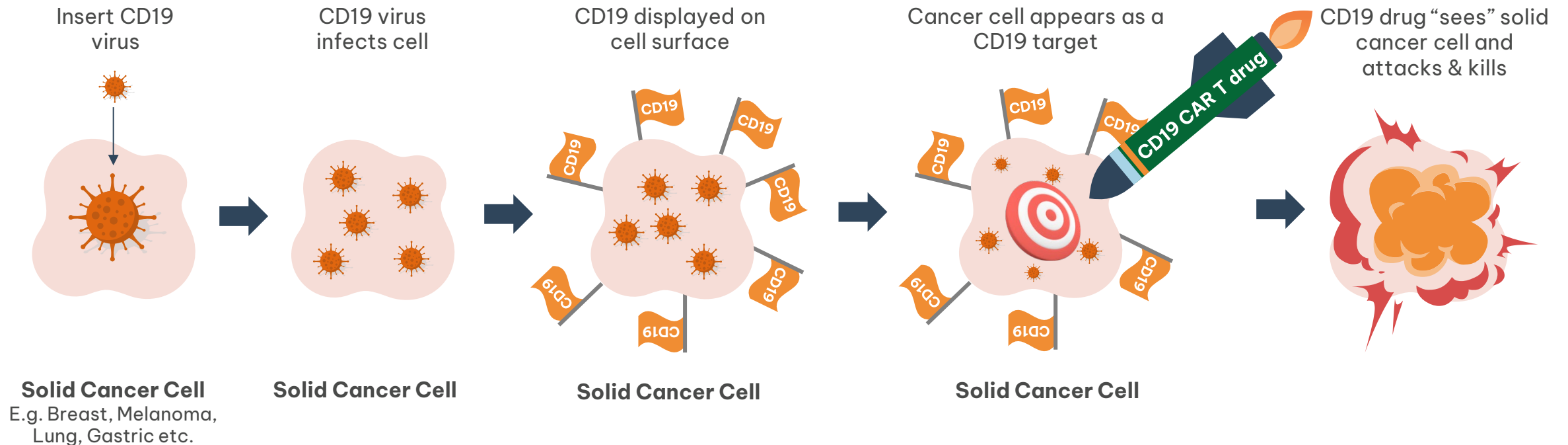
What is Imugene's onCARlytics CD19 expressing virus?

Imugene's novel onCARlytics CD19 virus, makes a solid cancer "resemble" a CD19 blood cancer cell, and lures FDA approved anti-CD19 CAR T drugs, to attack them

Solid cancers do not have the CD19 molecule on their cell surface

IMU's CD19 virus causes solid cancers to display **(create a target)** the CD19 molecule on their cell surface

This makes them a killing target for anti-CD19 CAR T blood cancer drugs



Imugene has Initiated The OASIS Phase 1 Open Label Trial with CD19 Virus and Blinatumomab

Combination treatment
for solid cancers



onCARlytics
CD19 virus



CD19 Bispecific
antibody

Recruiting up to 40 patients

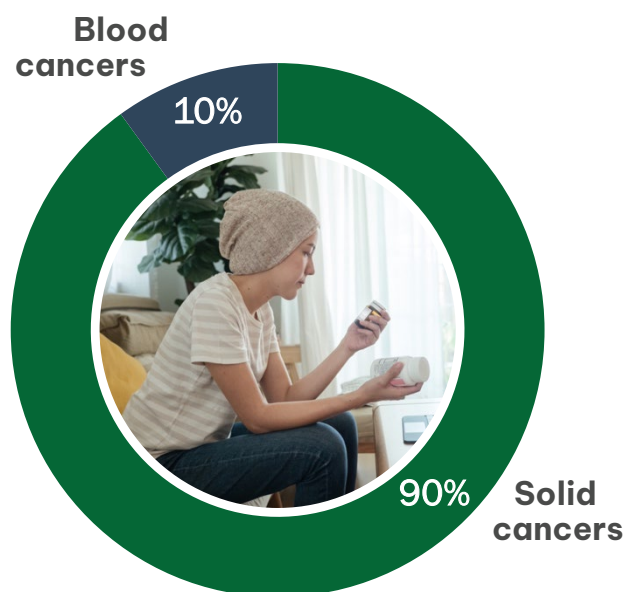
First patient dosed July 2023 at City of Hope

Multiple trial sites including; University of Cincinnati,
MD Anderson Cancer Centre and City of Hope



Variety of Approved Therapies Available for Combination with OnCARlytics

OnCARlytics can become the preferred partner for CD19 therapies in solid tumours (~90% of cancer market)



Global blood cancer CAR T market ~USD \$3B in 2023; projected to be ~USD \$23B by 2033, growing at a compound annual growth rate of 23.35%¹

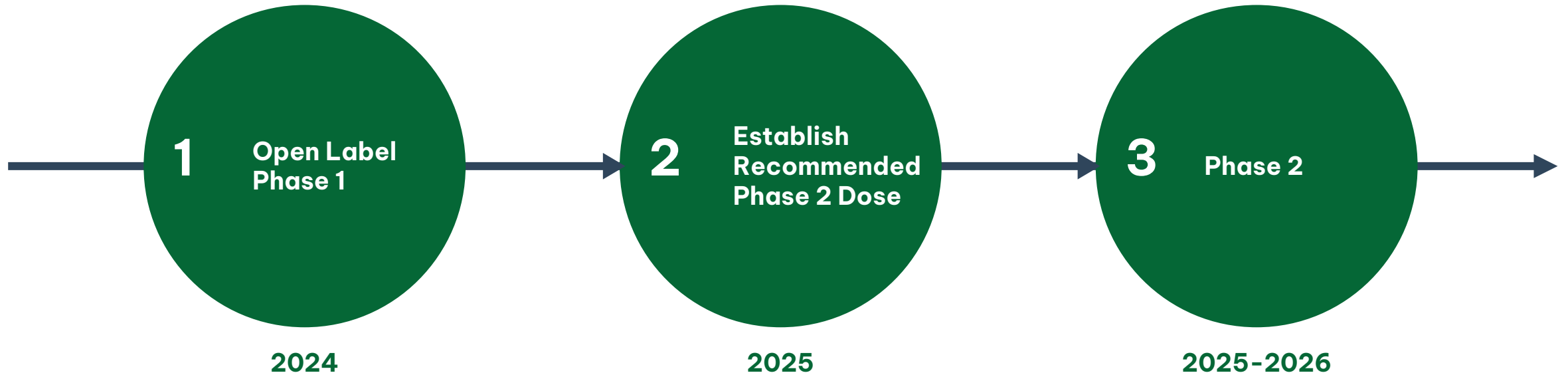
The global solid tumor cancer treatment market size estimated at USD 185.97 billion in 2022 and is projected to grow around USD 532.42 billion by 2032

onCARlytics could open up 90% of the market in solid tumours

1. <https://www.precedenceresearch.com/solid-tumor-cancer-treatment-market>

Combination Opportunities				
Company		First FDA Approval	Target	Approved Cancers
KYMRIA [®] (tisagenlecleucel) Dispersion For IV infusion	NOVARTIS	2017	CD19 Auto CAR T	B-ALL, DLBCL
YESCARTA [®] (axicabtagene ciloleucel) Suspension For IV infusion	Kite A GILEAD Company	2017	CD19 Auto CAR T	DLBCL, R/R FL
TECARTUS [®] (brexucabtagene autoleucel) Suspension For IV infusion	Kite A GILEAD Company	2020	CD19 Auto CAR T	R/R MCL
Breyanzi [®] (lisocabtagene maraleucel) Suspension For IV infusion	Bristol Myers Squibb [®]	2021	CD19 Auto CAR T	DLBCL
MONJUVI [®] tafasitamab-cxix 200mg For Injection, For Intravenous Use	morphosys	2020	CD19 Monoclonal Antibodies (MAbs)	DLBCL
uplizna [®] inebilizumab-cdon	HORIZON	2020	CD19 MAbs	NMOSD
BLINCYTO [®] (blinatumomab) For Injection, For Intravenous Use	AMGEN	2014	CD19-CD3 Bispecific MAbs	ALL
Zynlonta [®] loncastumab tesirine-lpyl For Injection, For Intravenous Use	ADC Antibody-Drug Conjugates	2021	CD19 Antibody- drug conjugate (ADC)	B-Cell Lymphoma

CD19 Virus Clinical Development Strategy




Milestones

- FPI IT Combo Cohort 1
- Early IT and/or IV Combo data
- Optimal Biological Dose (OBD) Established
- Phase 2 FPI
- OnCARlytics + azer-cel FDA IND and FPI in solid tumours


Future combination phase 1 trial with azer-cel and CD19 virus


- Preclinically, Azer-cel in combination with onCARlytics demonstrated sustained, robust activity against multiple tumour types
- Showed 100% killing of Triple Negative Breast Cancer and Gastric Cancer at 72 hours


2024 Highlights


 **azer-cel:** Three Complete Responses in azer-cel Phase 1B DLBCL trial


 **azer-cel:** First Australian site open for Phase 1b Clinical Trial

 **VAXINIA:** Positive trial update; 1 CR (in remission for over 2 years), 2 PRs, All treatments determined to be safe and tolerable

 **VAXINIA:** Orphan Drug Designation for treatment of Bile Tract Cancer, giving 7 years of market exclusivity

 **VAXINIA:** Bile Tract cancer trial open and first cohort cleared

 **VAXINIA:** Oncolytic Virotherapy CF33 patent granted in China and CF33 patent extension to 2040 in US

 **onCARlytics:** OASIS IV and IT Monotherapy cohort cleared

 **onCARlytics:** OASIS Combination arm open, FPI in IV and IT Combo



Key

DLBCL: Diffuse Large B-Cell Lymphoma (Blood Cancer)

CR: Complete Response

PR: Partial Response

FPI: First Patient In

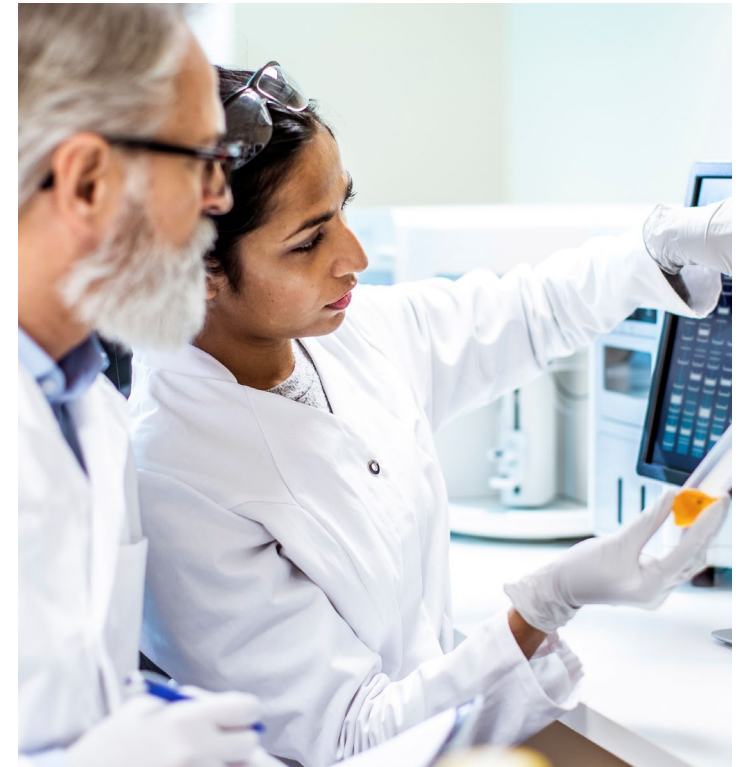
Combo: Combination Therapy

Mono: Monotherapy

IT: Intratumoural, **IV:** Intravenous

Expected Upcoming Key Catalysts H2 2024/2025

- **azer-cel**: DLBCL Phase 1b interim data update
- **azer-cel**: Target regulatory meeting with FDA
- **azer-cel**: FPI in Phase 2 study
- **azer-cel**: Expansion into additional blood cancers (Phase 1b Expansion Cohort)
- **onCARlytics**: IT and/or IV combination status
- **onCARlytics**: Data update and trial expansion
- **onCARlytics**: Optimal Biological Dose (OBD) Established
- **onCARlytics**: Phase 2 Start-up
- **onCARlytics + azer-cel** FDA IND and FPI in solid tumours
- **VAXINIA**: Second indication trial open
- **VAXINIA**: Optimal Biological Dose Established for IT and/or IV monotherapy
- **VAXINIA**: Phase 2 Study Open
- **VAXINIA**: Phase 2 FPI
- **VAXINIA**: IP & IA Phase 1 FPIs



Key

FPI: First Patient In


Combo: Combination Therapy

Mono: Monotherapy

DLBCL: Diffuse Large B-Cell Lymphoma
(Blood Cancer)

IT: Intratumoural, **IV**: Intravenous

Investment Highlights

 Robust platform technologies supporting 4 clinical trials with >200 patients treated to date in US and Australia, all under FDA INDs

Novel platforms in immuno-oncology, cell therapy (CAR Ts) and cancer viruses



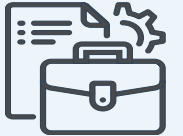
Clinical data readouts over next 12 months



Deeply experienced cancer drug development management team



Robust and broad patent portfolio



Experienced Leadership Team has brought > 17 FDA Approved Drugs to Market



Leslie Chong
Chief Executive Officer
& Managing Director

Genentech
A Member of the Roche Group

EXELIXIS

Roche

gsk



Dr. Paul Woodard, MD
Chief Medical Officer

IMMUNE-ONC
therapeutics

Bellicum

Genentech
A Member of the Roche Group

AMGEN

EXELIXIS



**Dr. Bradley Glover, PhD
MBA**
Chief Operating Officer

Kite
A GILEAD Company

Genentech
A Member of the Roche Group

Roche

celularity

illumina



Ms. Ursula McCurry
Chief Clinical
Operations Officer

AMUNIX

Genentech
A Member of the Roche Group

EXELIXIS

SuperGen



Dr. John Byon, MD, PhD
Senior VP of Clinical
Development

Fcte
THERAPEUTICS

Lyell

JUNO
THERAPEUTICS

Genentech
A Member of the Roche Group



Dr. Monil Shah
Head of Business
Development
(consultant)

WindMIL
THERAPEUTICS

Bristol Myers Squibb

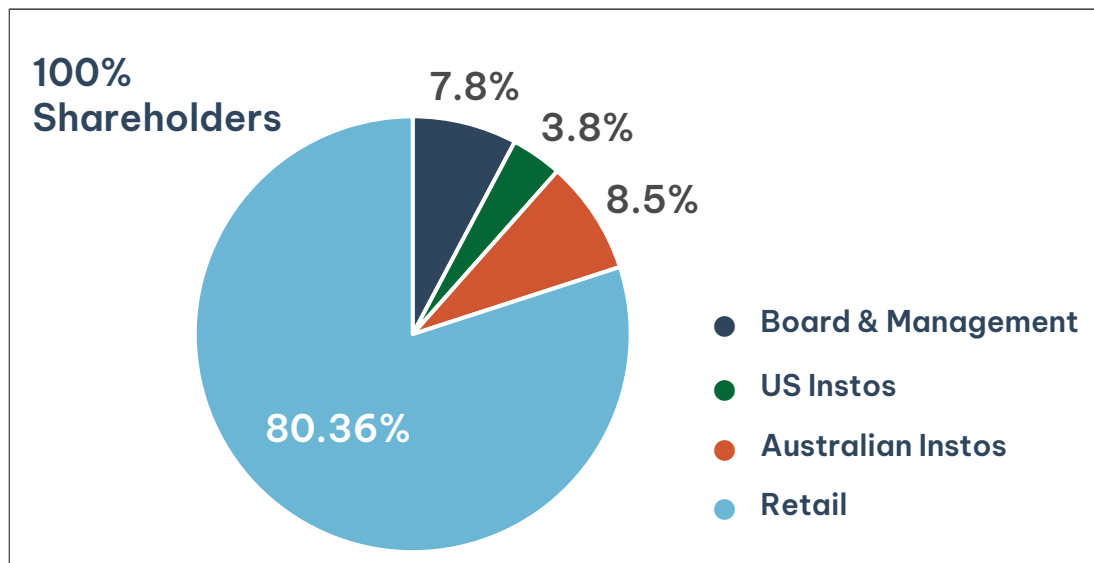
AMGEN

NOVARTIS

Celgene

Corporate Snapshot

Stock Code	ASX: IMU
12 Month Trading Range	4.3-15 cents
Market Capitalisation (13 November 2024)	\$342 million
Shares on Issue	7.4 B
Average Monthly Trading Volume	400 million shares
Cash at Bank (30 September 2024)	A\$54.3 million
No of Shareholders	29,543
Board & Management Ownership	7.8%



Top 15 Shareholders

Paul Hopper	409,071,906	5.50%
The Vanguard Group Inc	341,025,483	4.59%
Mann Family	263,730,758	3.55%
Private Clients of AustralianSuper	128,689,952	1.73%
Dr Nicholas Smith	118,000,000	1.59%
Ms Leslie Chong	85,710,416	1.15%
Precision BioSciences	73,638,262	0.99%
Macquarie Securities	50,778,057	0.68%
Thorney Investments	50,328,041	0.68%
5 Financial	49,812,888	0.67%
MLC Limited	39,105,533	0.53%
Private Clients of Netwealth Investments	38,200,635	0.51%
Private Clients of UBS Financial Services	37,922,410	0.51%
Private Clients of HOSTPLUS Choiceplus	37,381,150	0.50%
BlackRock Investment Mgt	35,397,315	0.48%

ASX : IMU

shareholderenquiries@imugene.com

imugene.com



IMUGENE

Developing Cancer Immunotherapies

