



# IMUGENE

Developing Cancer Immunotherapies

**ASX: IMU**

## Developing Cancer Immunotherapies

**JP Morgan, January 2023**



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# INTRODUCTION TO IMUGENE

Imugene is a biotech company headquartered in Australia and publicly traded on the Australian Securities Exchange (ASX:IMU)



# EXPERIENCED MANAGEMENT TEAM WITH SIGNIFICANT CLINICAL DEVELOPMENT EXPERTISE



**Leslie Chong**  
Chief Executive  
Officer & Managing Director



**Dr Giovanni  
Selvaggi, MD**  
Chief Medical Officer



**Dr Monil Shah**  
Chief Business  
Officer



# THREE UNIQUE TECHNOLOGY PLATFORMS MAXIMIZE OPPORTUNITIES IN SOLID TUMORS

Therapeutic approaches with combination potential with existing standards of care

PLATFORM

IP

CLINICAL TRIALS



**IMUGENE**

Developing Cancer Immunotherapies



**onCARlytics**  
IMUGENE



**CF33 Oncolytic Virus**  
IMUGENE



**B Cell Immunotherapy**  
IMUGENE

CF33-CD19 CAR T Combination Therapy

CHECKvacc

VAXINIA

HER-Vaxx

PD1-Vaxx

**IP TO 2038**  
Filed in major territories

**IP TO 2037**  
Filed in major territories  
Granted in Japan/Mexico

**IP TO 2036**  
Granted in  
multiple  
countries  
(US/EU/Asia)

**IP TO 2037**  
Filed in major  
territories



TBC  
Phase 1  
**EUREKA**  
THERAPEUTICS



COH TNBC IST  
Phase 1

MAST  
Phase 1

DOMINICA  
Phase 1

HERIZON  
Phase 1b/2

IMPRINTER  
Phase 1

nextHERIZON  
Phase 2

neoHERIZON  
Phase 2

TIGIT-Vaxx, PDL1-Vaxx, LAG3-Vaxx,  
TIM3-Vaxx, CTLA4-Vaxx



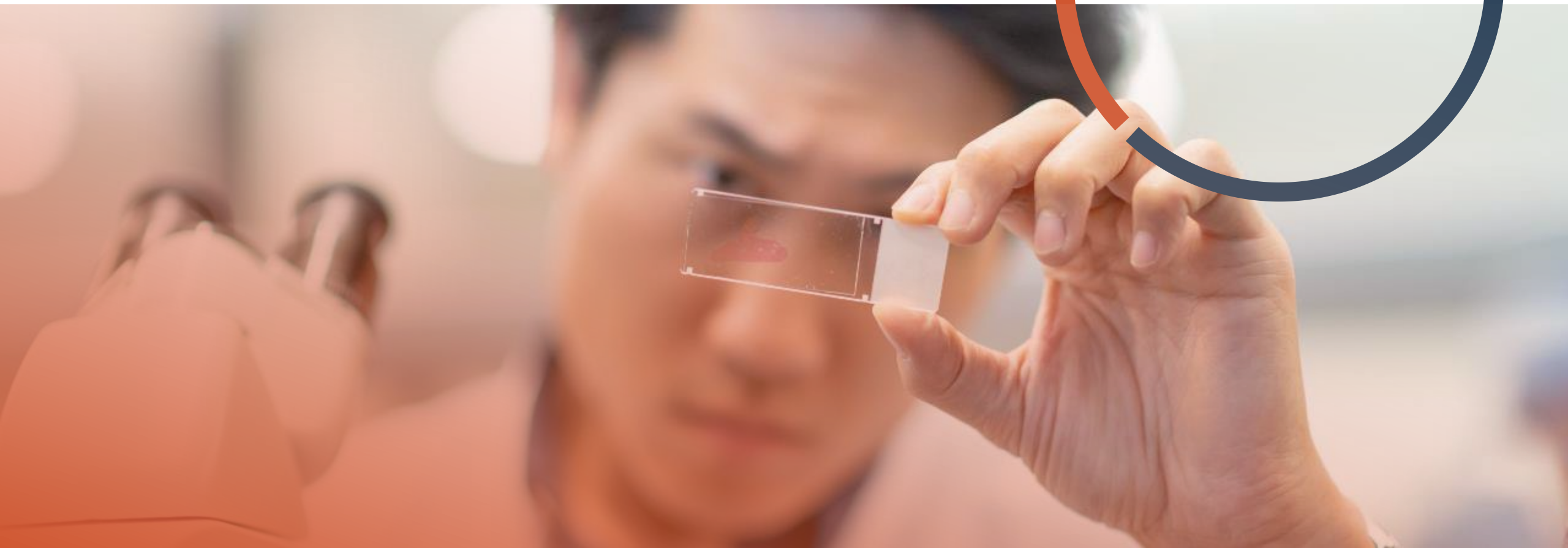
# IMUGENE'S DEEP IMMUNOTHERAPY PIPELINE FOR THE TREATMENT OF SOLID TUMORS



| PLATFORM                        | PROGRAM/<br>TARGET             | COMBINATION<br>APPROACH    | INDICATION                      | IND | PRECLINICAL   | IND | PHASE 1 | PHASE 2 | 2023 EXPECTED<br>MILESTONES   |
|---------------------------------|--------------------------------|----------------------------|---------------------------------|-----|---------------|-----|---------|---------|---|
| onCARlytics<br>IMUGENE          | onCARlytics<br>(CF33-CD19)     | CD19 targeted<br>therapies | Metastatic<br>Solid Tumors      |     | PHASE 1       |     |         |         | FDA IND<br>FPI  |
| CF33 Oncolytic Virus<br>IMUGENE | VAXINIA<br>(CF33)              | Pembrolizumab              | Metastatic<br>Solid Tumors      | ✓   | MAST          |     |         |         | IV Cohort 2 Cleared<br>Optimal Biological Dose<br>Combination FPI IT and IV<br>Combination OBD IV |
|                                 | CHECKvacc<br>(CF33-αPD-<br>L1) | Checkpoint<br>Inhibitors   | Metastatic<br>TNBC              | ✓   | CHECKvacc IST |     |         |         | IT Cohort 3 Cleared<br>Optimal Biological Dose  |
|                                 | CHECKvacc<br>(CF33-αPD-<br>L1) | Checkpoint<br>Inhibitors   | Solid Tumors                    |     | DOMINICA      |     |         |         | FDA IND   |
| B Cell Immunotherapy<br>IMUGENE | HER-Vaxx<br>(HER2)             | Chemotherapy               | First Line<br>Gastric<br>Cancer |     | HERIZON       |     |         |         | Publication and<br>Presentation (ASCO GI)   |
|                                 |                                |                            | Neoadjuvant<br>Gastric Cancer   |     | neoHERIZON    |     |         |         | CTA Clearance<br>FPI  |
|                                 |                                | Checkpoint<br>Inhibitors   | Metastatic<br>Gastric<br>Cancer | ✓   | nextHERIZON   |     |         |         | ASCO GI TiP<br>Interim Data Readout   |
|                                 | PD1-Vaxx<br>(PD1)              | Chemotherapy               | Metastatic<br>NSCLC             | ✓   | IMPRINTER     |     |         |         | Combination FPI   |
|                                 |                                | Atezolizumab               | MSI High CRC                    |     | NeoPolem IST  |     |         |         | CTA Clearance<br>FPI  |

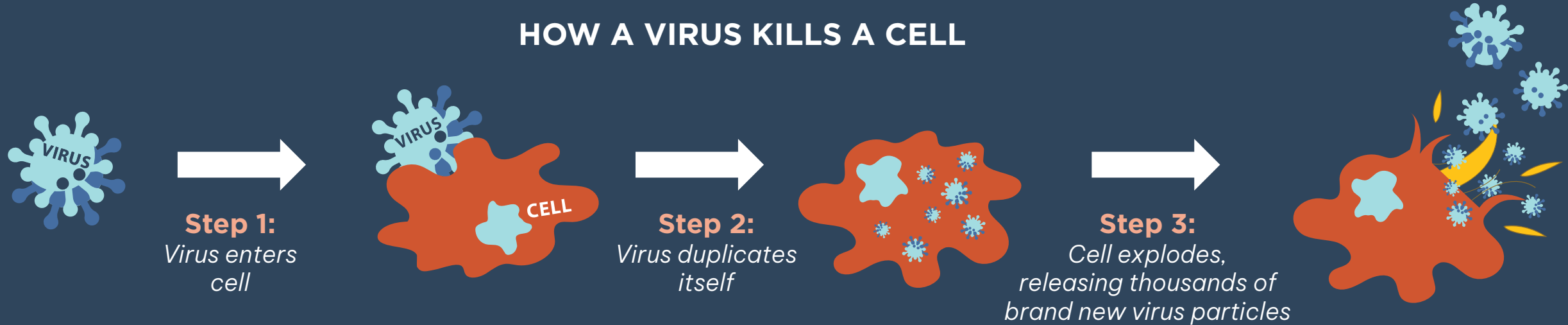


# CF33 Oncolytic Virus



# ONCOLYTIC VIRUSES OFFER A SELECTIVE IMMUNOGENIC APPROACH TO EFFECTIVELY KILL TUMOR CELLS

## HOW A VIRUS KILLS A CELL



### Engineering enhancements

- Infect and kill only cancer cells
- Carry additional payloads to augment killing (check point inhibitors, cytokines, anti-angiogenics)

### Multiple ways to kill cancer cells

- Direct Lysis
- Immuno-activation
- Priming of TME to enhance checkpoint inhibitor response<sup>1</sup>

### Precedent for approval

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



# MAJOR ADVANTAGES OF VAXINIA CF33



## **Robust Efficacy**

Highly potent cancer killing  
Converts 'cold' tumors to responsive 'warm' tumors  
Direct intra-tumor and systemic anti-tumor activity

## **Well-Tolerated**

Large therapeutic window  
Genetically stable  
Combinability with targeted therapies

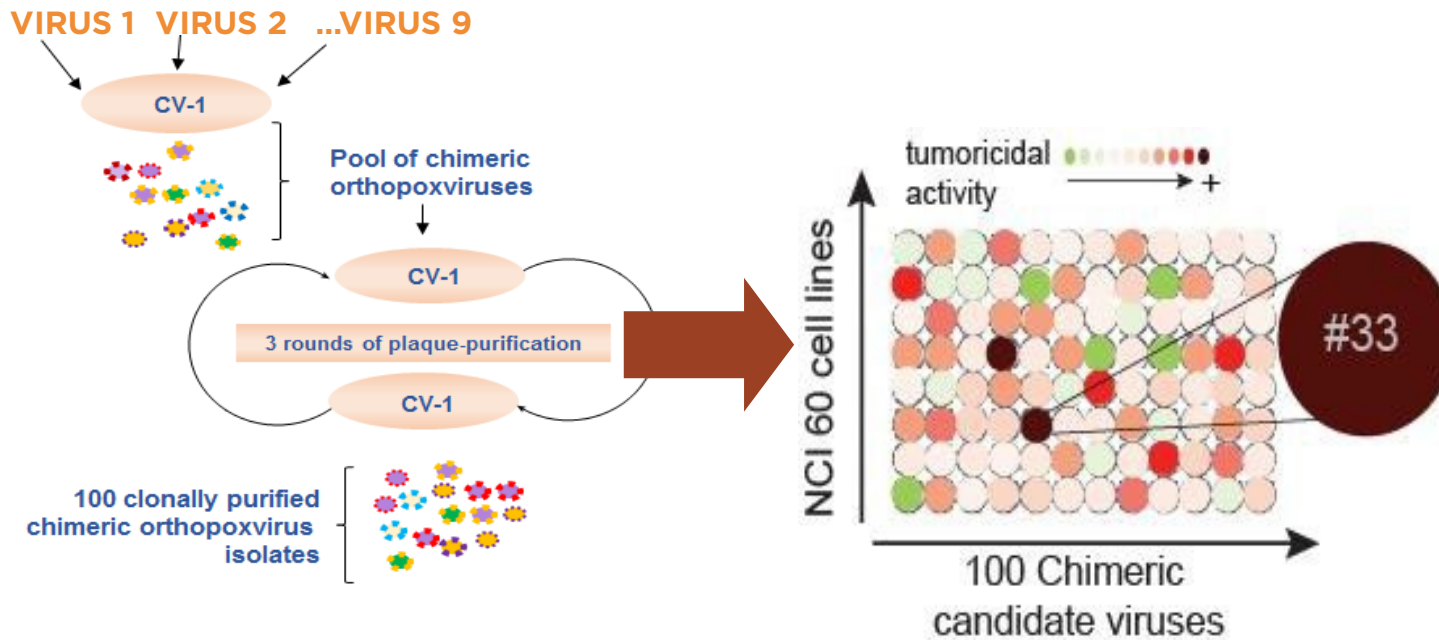
## **Broad Application**

Tumor agnostic approach  
IT, IV or IP administration with potential to multi-dose  
Combination approaches

## **Scalability**

Made in high titers  
Storage stability  
Clinically stable after mixing

# CF33 GENERATION & EVALUATION OF NOVEL CHIMERIC POXVIRUSES



- Infection by 9 different pox vaccinia vaccine strains trading genetic material isolating over 100 different clones (new species)
- Placed in the State-of-the-art high throughput screening for efficacy against the NCI 60 cell lines.
- The 33<sup>rd</sup> virus was chosen for its eradication of all cancer cell lines in the NCI 60, CF33

## STRATEGY

Engineer Novel Chimeric Viruses

High Through-put Screening  
for Efficacy Against NCI60

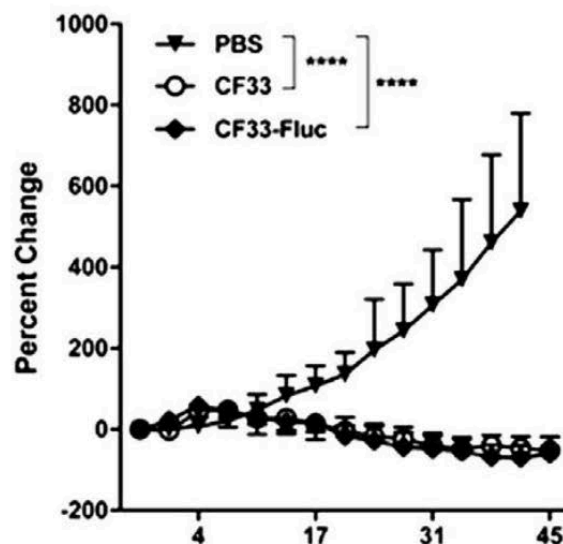
Safe in Animals

Arming with Additional Payloads

Hope Oncolytic Viruses (HOV)

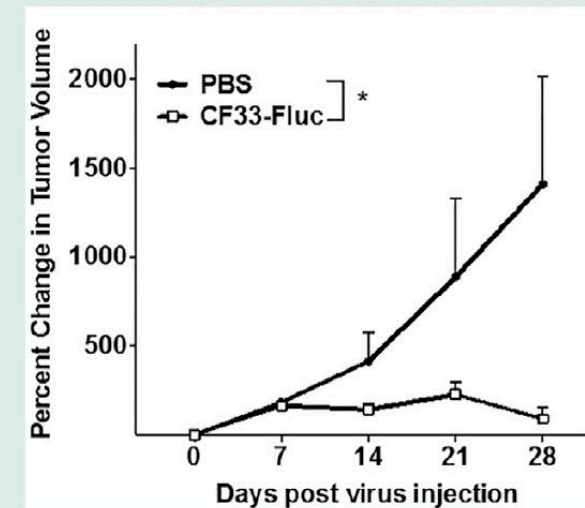
# COMPELLING KILLING OF MANY TUMOR TYPES AT LOW DOSES

## PANCREATIC



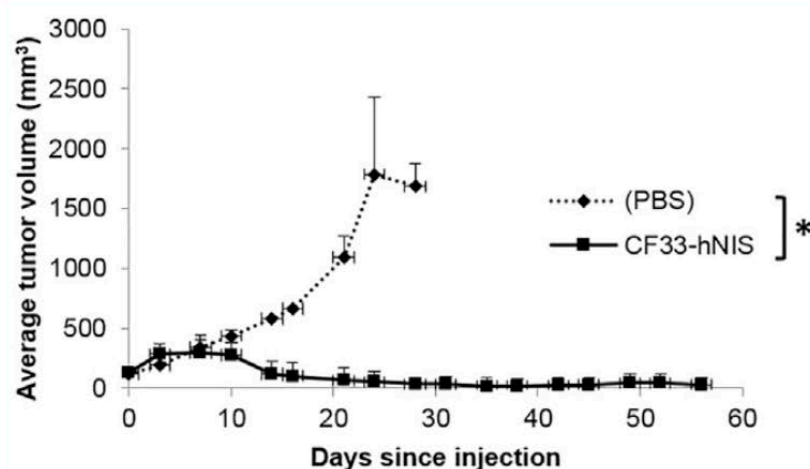
*J Transl Med.* 2018, 16, 110

## COLORECTAL



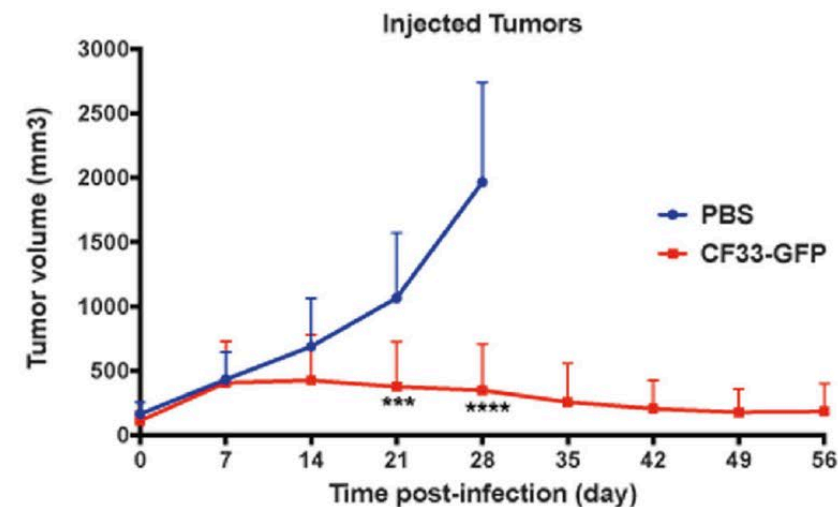
*Mol Ther Oncolytics.* 2018, 9, 13

## COLON



*Mol Ther Oncolytics.* 2019, 13, 82

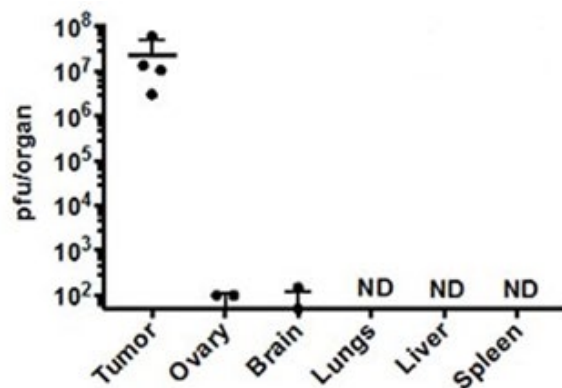
## LUNG



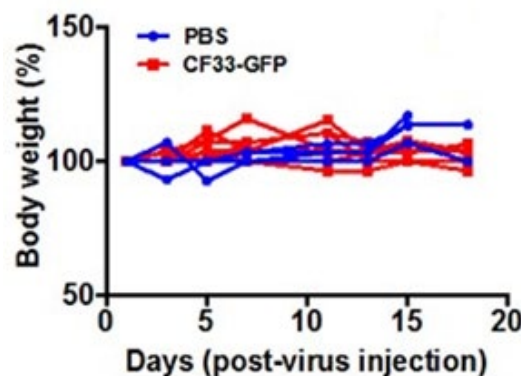
*Cancer Gene Ther.* 2019

# SAFELY DELIVERED ROUTES: IT, IP, IV ENABLES LARGE THERAPEUTIC INDEX IN PATIENTS

## Tumor restricted viral delivery



## No change in body weight



No toxicity across tumor models in over 1,000 mice until over 10<sup>9</sup>

| VIRUS               | MOUSE                     | # OF MICE      | DOSE                        | DELIVERY                       | TOXICITY    |
|---------------------|---------------------------|----------------|-----------------------------|--------------------------------|-------------|
| CF33-NIS            | Nude                      | 73             | 1e3-1e5                     | IT                             | No findings |
| CF33-miR            | Nude                      | 41             | 1e3-1e5                     | IT                             | No findings |
| CF33-Luc            | Nude<br>NSG               | 48<br>8        | 1e3-2e5<br>1e6              | IT, IV & IP<br>IT              | No findings |
| CF33-GFP            | Nude<br>NSG               | 18<br>8        | 1e3-2e7<br>1e6              | IT<br>IT                       | No findings |
| CF33-hNIS-<br>αPDL1 | Nude<br>Black/6<br>BALB/c | 52<br>67<br>31 | 1e4<br>1e5-1e8<br>1e7       | IT<br>IT & IV (1e6)<br>IT & IV | No findings |
| CF33-hNIS-<br>Δ14.5 | Nude<br>Black/6<br>BALB/c | 36<br>16<br>16 | 1e4<br>1e6 - 1e8<br>1e7-3e7 | IT<br>IT<br>IT & IV (2e7)      | No findings |
| CF33-CD19           | NSG                       | 288            | 1e6-1e8                     | IT                             | No findings |

Majority of mice cured with a single injection of 1000 pfu via IT, IV and IP delivery

# CF33-hNIS: TUMOR TRACKING AND TROPISM

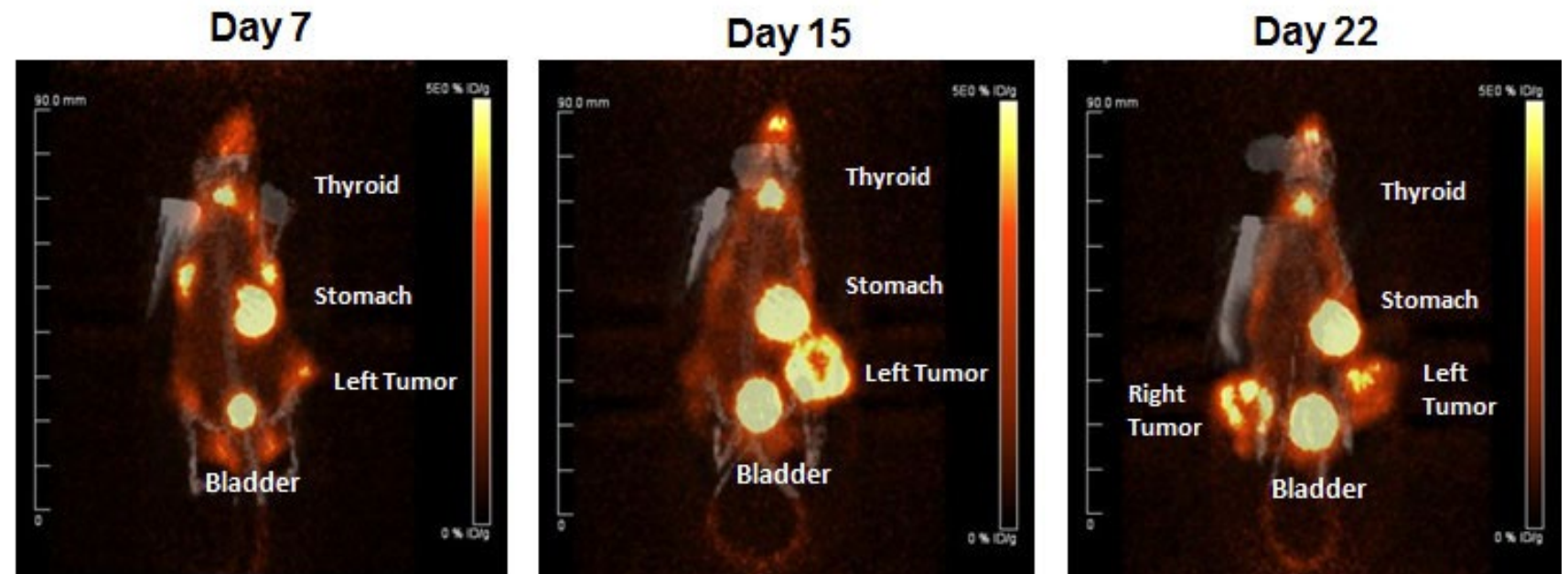
Genetic modification enables tumor tracking and tumor tropism

- hNIS (human sodium iodide symporter) protein is expressed on the tumor cell surface
- hNIS transgene inserted within J2R locus (Tk) to transport radioactive iodine for imaging

Tracked virus supports tumor specificity and systemic delivery

- Cross infection of tumors supported by  $^{124}\text{I}$  uptake in right side on day 22 following injection on left side
- Physiologic uptake in thyroid, stomach and bladder

$^{124}\text{I}$  PET Imaging of CF33-hNIS-infected HCT116 (colon cancer) from flank xenografts in nude mice over time

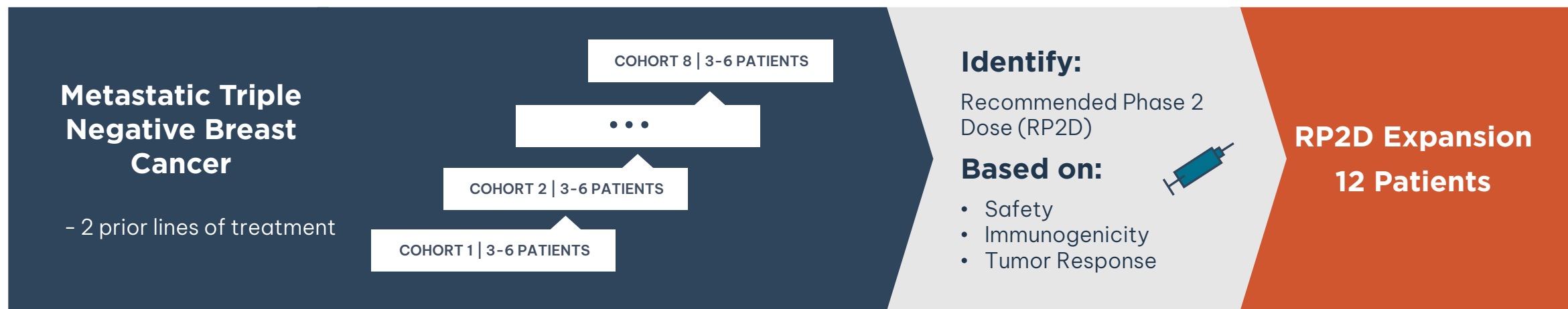




# CHECKvacc PHASE 1 TNBC STUDY CF33+hNIS+aPD-L1 (“Armed” Virus)



Presented at SABC 2022



First Patient Enrolled October 2021

## Disease of need

- 8-13 month survival for metastatic disease with few treatments

## Potential target for immunotherapy

- Expresses PD1, PD-L1

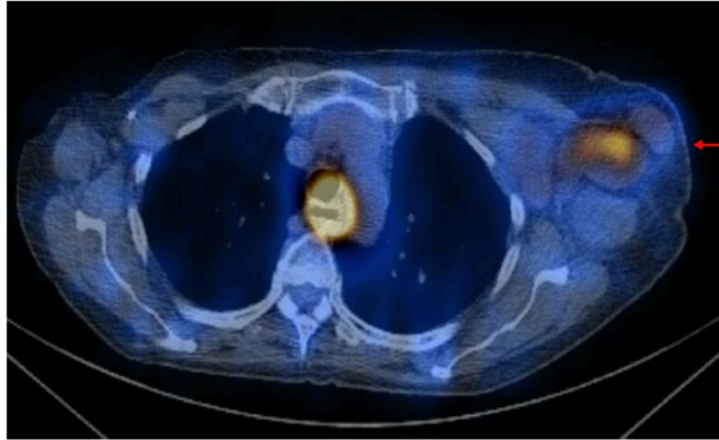
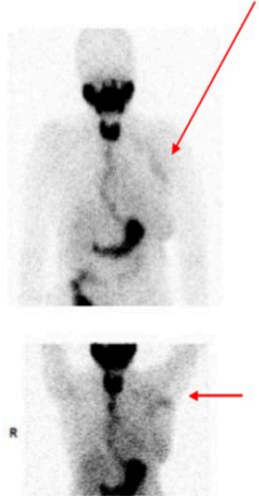
## Treatment responses to Atezolizumab (JAMA Oncology, 5:74, 2019)

- 1st line: 24%; 2nd line: 6%
- Approved by FDA 8 March 2019

## Potential for registration in well-designed, randomized P2 study

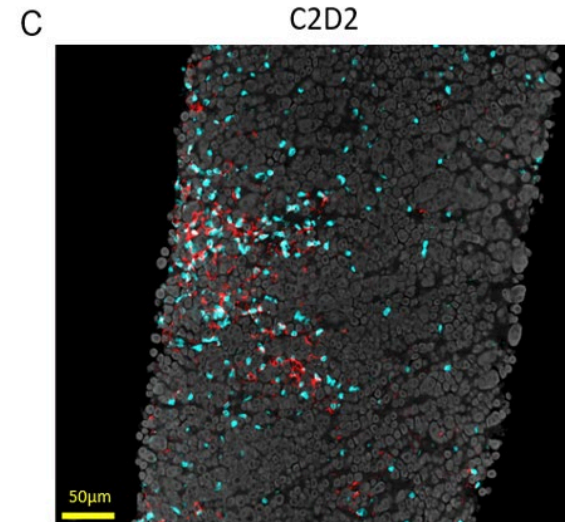
|             |                            |
|-------------|----------------------------|
| Indication  | TNBC                       |
| FDA IND     | CHECKvacc: CF33-hNIS-aPDL1 |
| N           | 33-78                      |
| Location    | Single Center: COH         |
| Admin Route | Intratumoral (IT)          |

# CHECKvacc (CF33-hNIS-antiPD-L1) TUMOR TRACKING

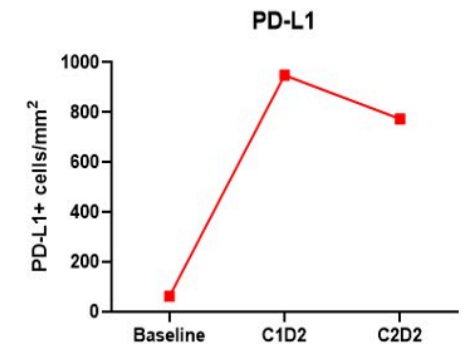


- hNIS 99m uptake in SPECT scan

**SPECT imaging of patient using Technetium-99m (C1D8):** Patient COH-004 received CHECKvacc at Dose Level 2 ( $3 \times 10^5$  PFU). Injected lesion was left axilla showed significant enhancement of injected lymph node.



- D
- Immune activation-increase in PD-L1



**Multiplex immunofluorescence (mIF) of COH-004 tumor:** C&D immune infiltrates shows increase density of PD-L1+ cells across patient tissue biopsies.

# VAXINIA PHASE 1 MAST STUDY

## (Metastatic Advanced Solid Tumors)

First Patient Enrolled May 2022, IV Cohort 1 Cleared Nov 2022

### Dose Administration (Parallel Groups)

n=52-100



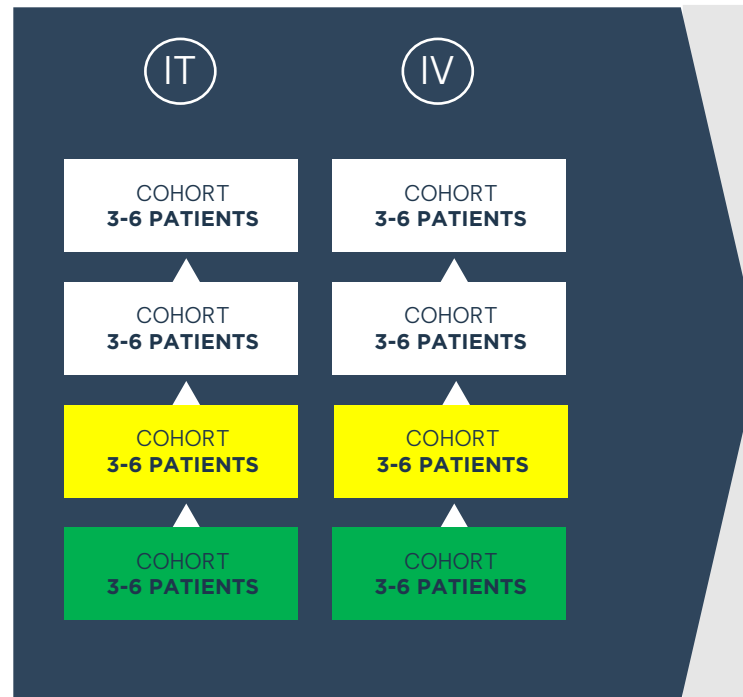
**IT Administration**  
Metastatic and  
Advanced Solid  
Tumors



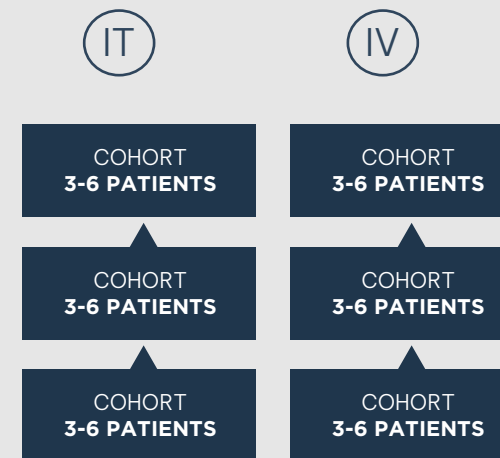
**IV Administration**  
Metastatic and  
Advanced Solid  
Tumors

Site Location: USA,  
AUS

### VAXINIA Monotherapy Dose Escalation



### VAXINIA + Pembrolizumab Combination Dose Escalation\*



\*Begins following Cohort 2  
(monotherapy) clears per route of  
administration

### Cohort Expansion

**RP2D Expansion**  
(N=10)

**Tumor Types of  
Interest**  
(cleared cohorts)

**Identify:** Recommended Phase 2 Dose (RP2D) – Monotherapy and Combination  
**Based on:** Safety, Immunogenicity, Tumor Response

**CF33 oncolytic virus alone and in combination with pembrolizumab**



# CF33-CD19





# THE CELL THERAPY SOLID TUMOR CHALLENGE & IMUGENE'S SOLUTION

Cell therapy, including Chimeric Antigen Receptor (CAR) T cell therapy, has had limited activity in solid tumors, largely due to a lack of selectively and highly expressed surface antigens, such as the blood B cell antigen CD19

CD19 Targeting Cells

CD19 Targeting domain

OV generated CD19

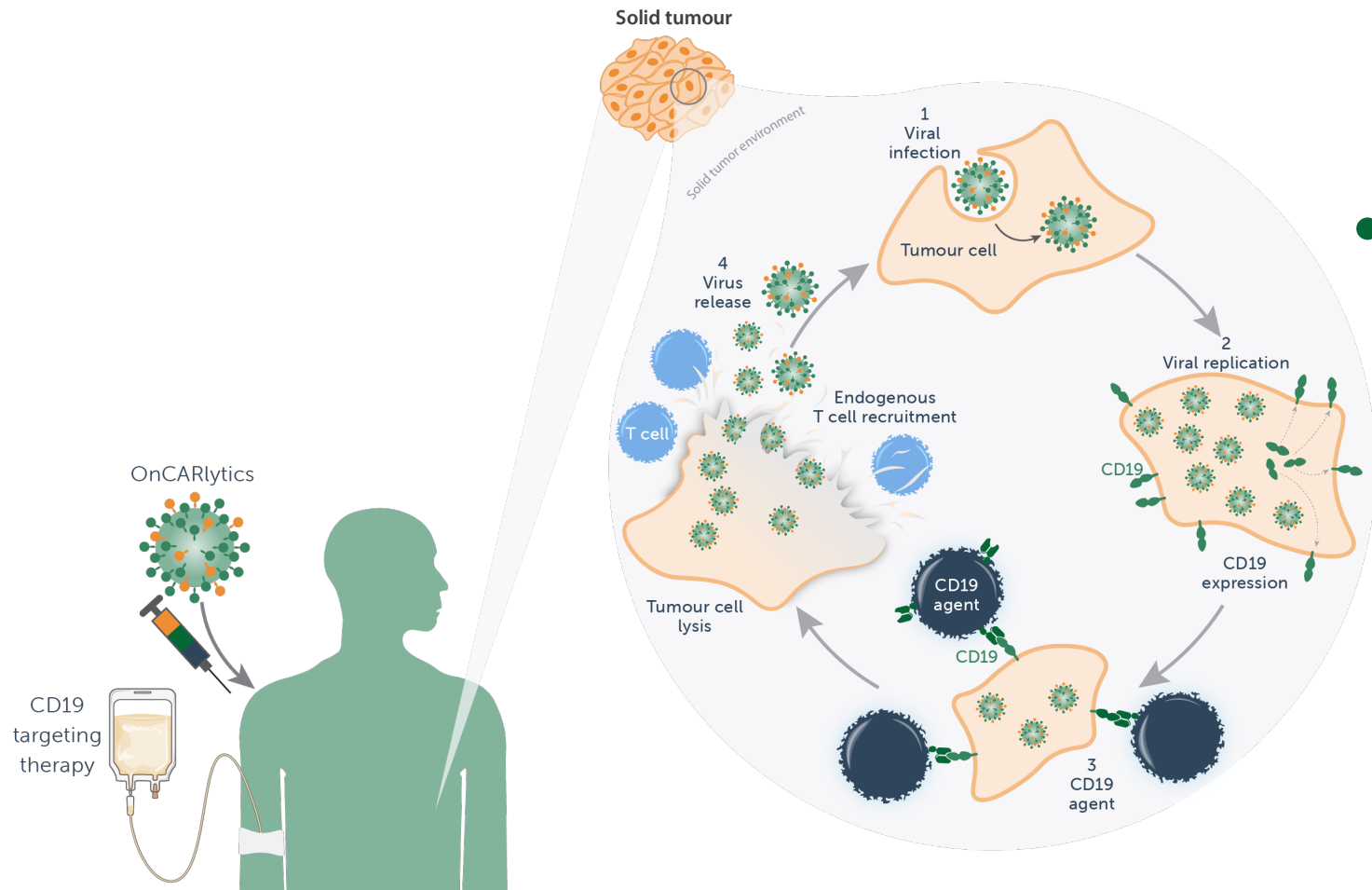
Solid Tumor

## IMUGENE'S APPROACH

- Use onCARlytics (CF33-CD19) to express CD19 antigen on solid tumor cells
- Combine onCARlytics (CF33-CD19) with autologous or allogeneic CD19 CAR T cell therapies for the treatment of solid tumors



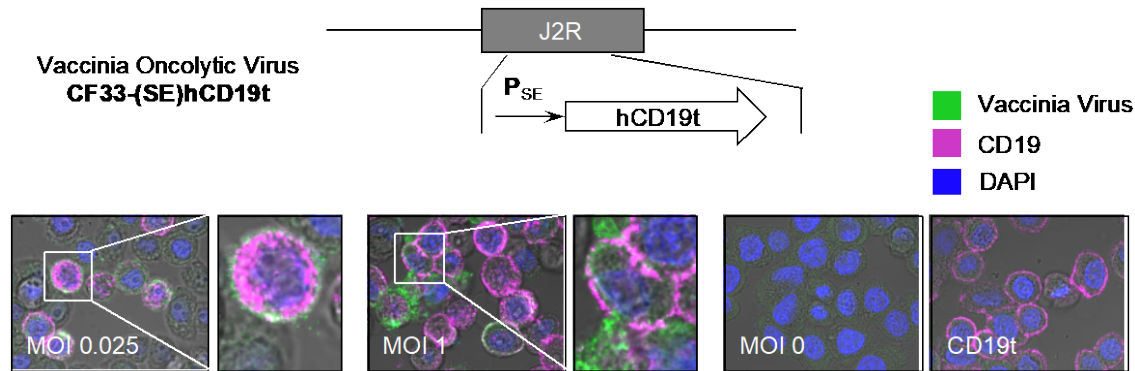
# MECHANISM OF ACTION: HOW DOES IT WORK?



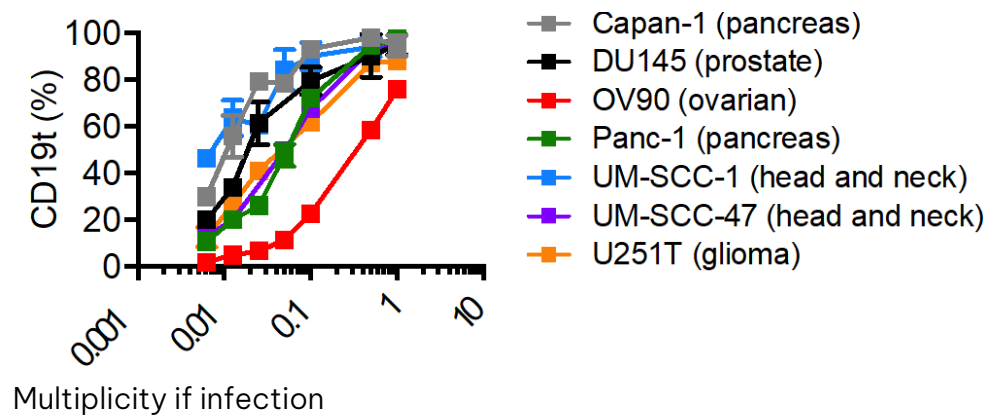
*onCARlytics makes solid tumors “seen” by CD19 targeting therapies*

1. OnCARlytics infects Tumor cells
2. Virus replication and production of CF33-CD19 on the cell surface enabling CD19 cell targeting
3. Tumor cell lysis leads to viral particle release and the combination promotes endogenous immune cell recruitment to Tumors
4. Released viral particles re-initiate virus infection of surrounding Tumor cells.

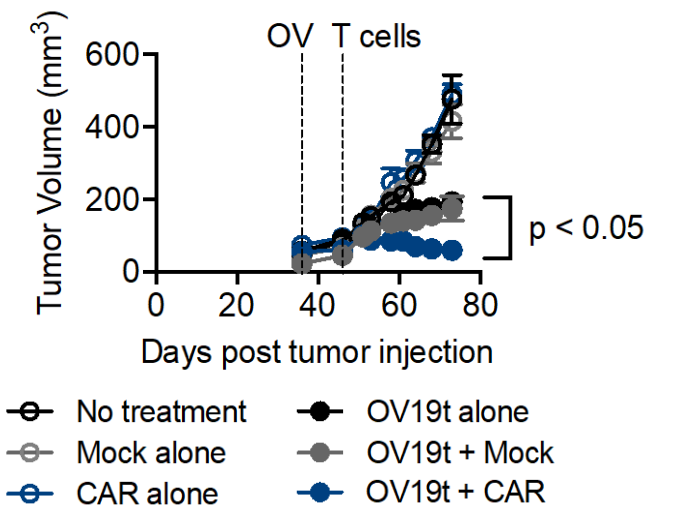
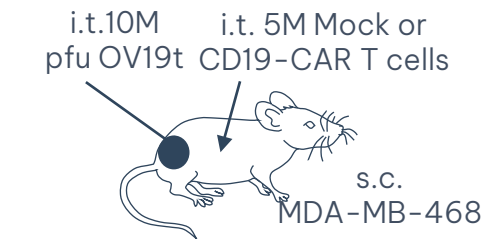
# onCARLYTICS DELIVERS TARGETS TO “TARGETLESS” SOLID TUMORS



onCARlytics (CF33-CD19) infects a wide array of solid Tumor cell lines, with dose-dependent CD19 cell surface expression



Combination of onCARlytics (CF33-CD19) and CD19-CAR T cells promotes tumor regression in xenograft model of TNBC

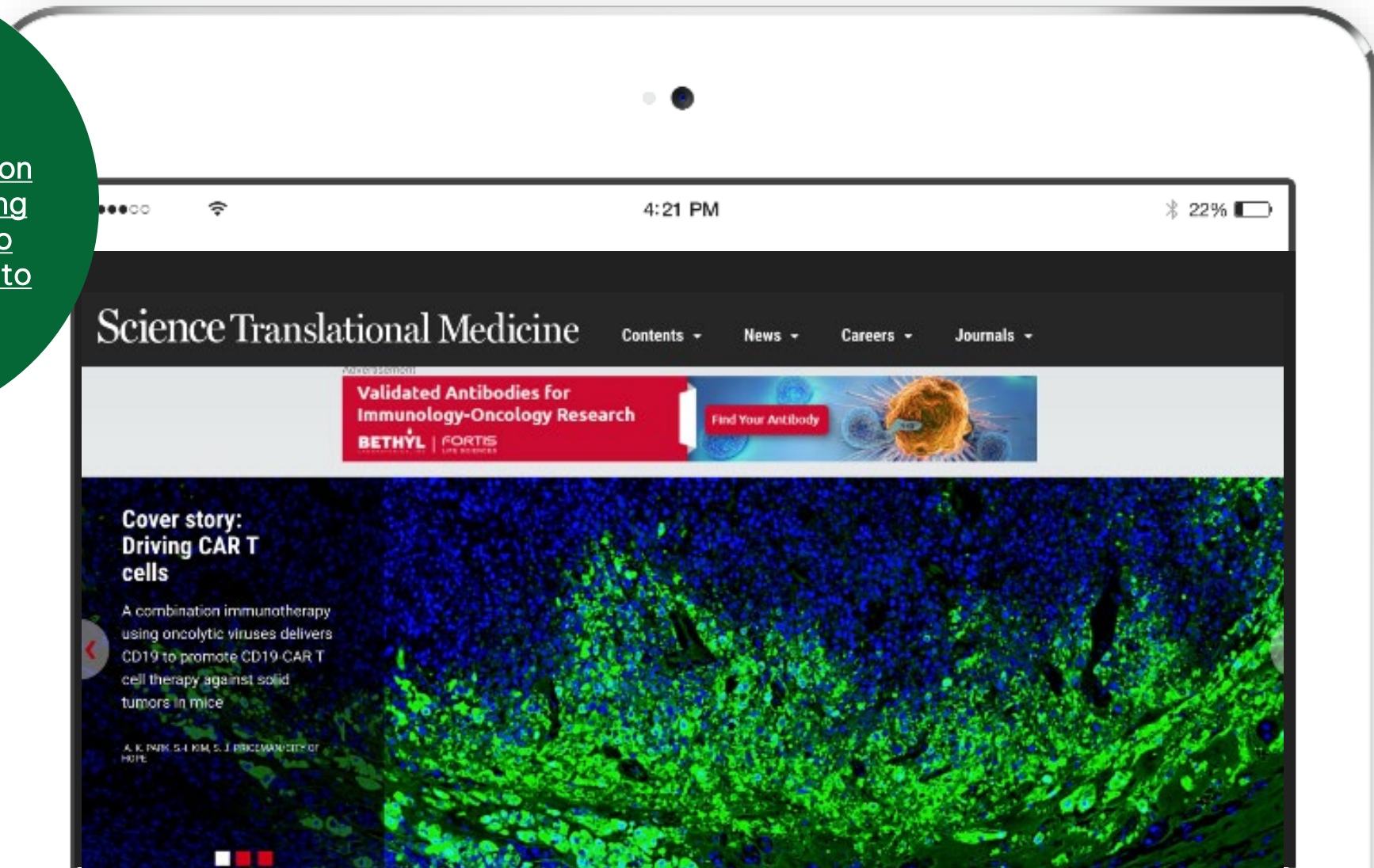


# PUBLISHED FRONT COVER OF SCIENCE TRANSLATIONAL MEDICINE JOURNAL IN 2020



Effective combination  
immunotherapy using  
oncolytic viruses to  
deliver CAR targets to  
solid tumors

Park AK, Fong Y, Kim SI,  
Yang J, Murad JP, Lu J,  
Jeang B, Chang WC, Chen  
NG, Thomas SH, Forman  
SJ, Priceman SJ. Sci Transl  
Med. 2020 Sep 2;12(559):  
eaaz1863. doi:  
10.1126/scitranslmed.aaz1  
863.PMID: 32878978



## Collaboration with Celularity, Eureka and Arovella for combination with onCARlytics



## Strategic Partnership with Celularity



## Allogeneic CyCART19<sup>®</sup> T cells

## Strategic Partnership with Eureka



# Autologous ARTEMIS® T cells

## Strategic Partnership with Arovella



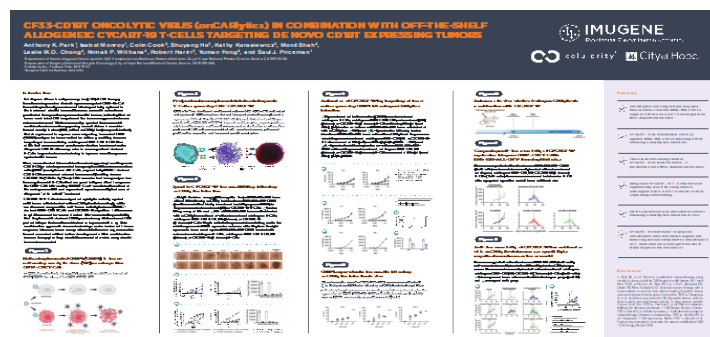
## Allogeneic invariant natural killer (iNKT) cells



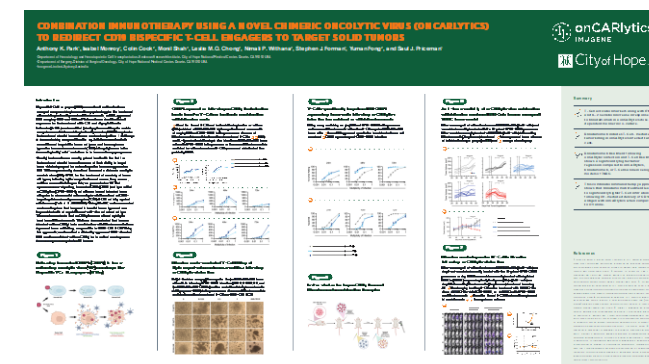
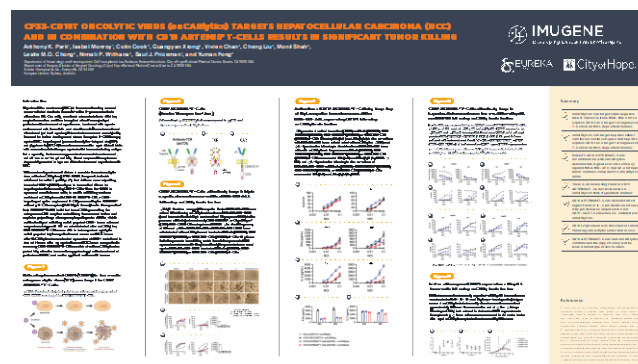
Society for Immunotherapy of Cancer

## 3 POSTERS PRESENTED AT SITC 2022

**CyCART19®**



Artemis®









# HER-Vaxx





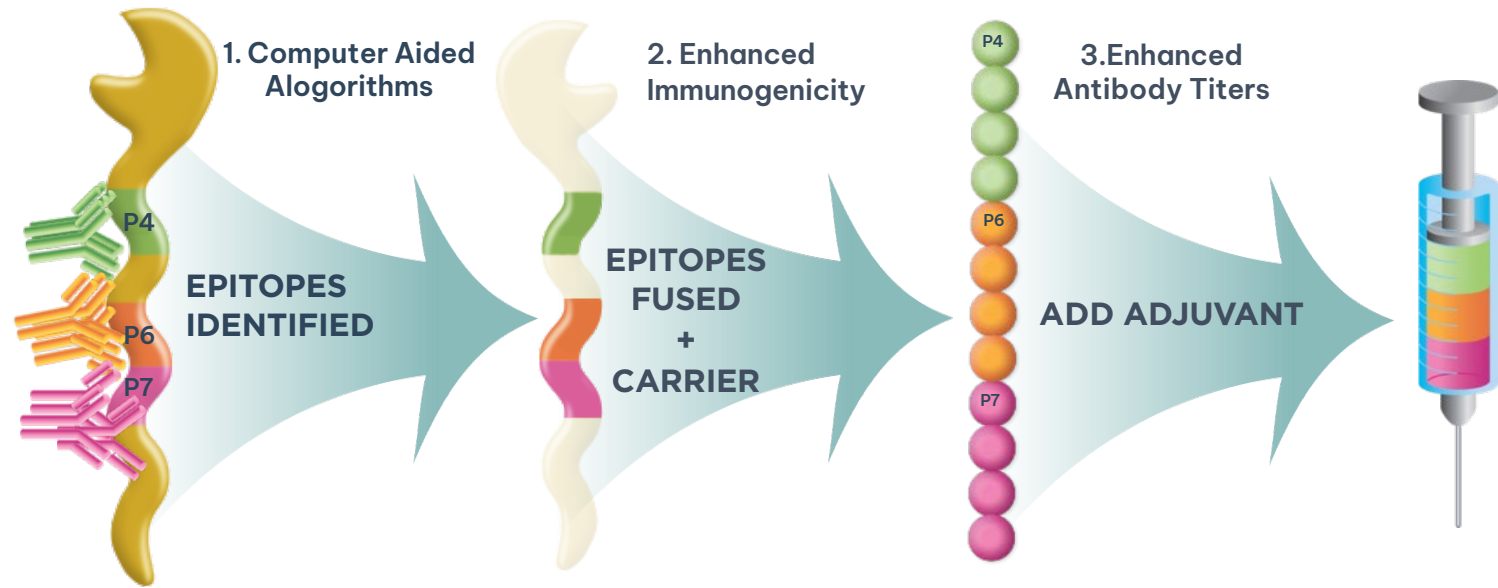
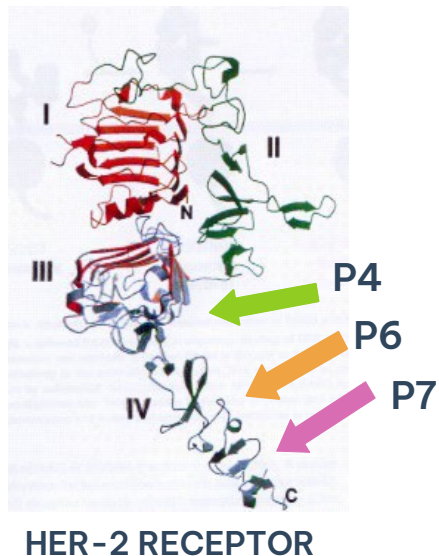
# B CELL BASED ANTIBODIES HAVE DISTINCT COMPETITIVE ADVANTAGES TO EXISTING TREATMENTS

B cell vaccines offer a unique opportunity to intervene at multiple points in the immune system and create immune memory which enhances durability of response.

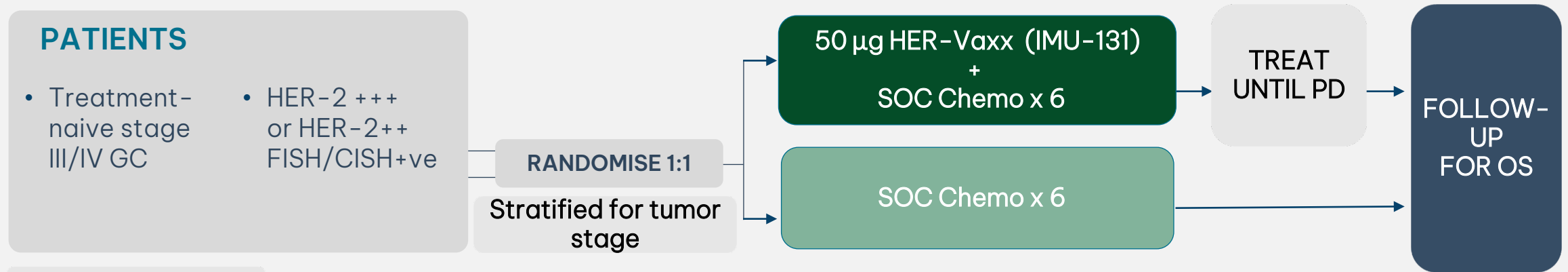
|                   | <b>NATURAL B CELL DERIVED ANTIBODIES</b>  | <b>MONOCLONAL ANTIBODIES</b>             |
|-------------------|--|---|
| <b>Safety</b>     | Stimulates the immune system to produce Abs, which may be potentially safer  | Synthetic Ab, with side effects (including ventricular dysfunction, CHF, anaphylaxis, infusion reactions, immune mediation) |
| <b>Efficacy</b>   | Polyclonal Ab response reduces risk of resistance and potentially increases efficacy   | Monoclonal Ab – may develop anti-drug antibodies  |
| <b>Durability</b> | Antibodies continuously produced with lasting immune response to potentially inhibit tumor recurrence                        | Half life necessitates recurrent dosing   |
| <b>Usability</b>  | After priming, low numbers of vaccinations required per year   | Requires regular infusion   |
| <b>Cost</b>       | Low cost of production enables greater pricing flexibility facilitating combination  | Expensive course of treatment >US\$100K per year  |

# HER-Vaxx: B-CELL IMMUNOTHERAPY VACCINE AGAINST HER-2

- B-cell cancer vaccine designed to stimulate a patient's own immune system to repeatedly target the HER-2+ cancer with HER-2 directed antibodies
- Stimulates a patient's B cells to produce polyclonal antibodies that target cells with overexpressing HER-2 receptors on their surface
- HER-Vaxx consists (1) of three fused B-cell epitope peptides (P4, P6, P7) from the HER-2 receptor conjugated to (2) a carrier protein CRM197 plus (3) an adjuvant Montanide ISA51. Injected as a water-in-oil emulsion.



# HERIZON PHASE 1B/2 OPEN LABEL, MULTICENTER STUDY



NCT02795988

First patient dosed in March 2019

|                     |  |
|---------------------|--|
| <b>HER-Vaxx</b>     | C1D1, C3D1 then Q9 weeks till PD   |
| <b>Chemotherapy</b> | 6 cycles Q3 weeks (Cisplatin + 5FU or Capecitabine; Oxaliplatin + Capecitabine ) |

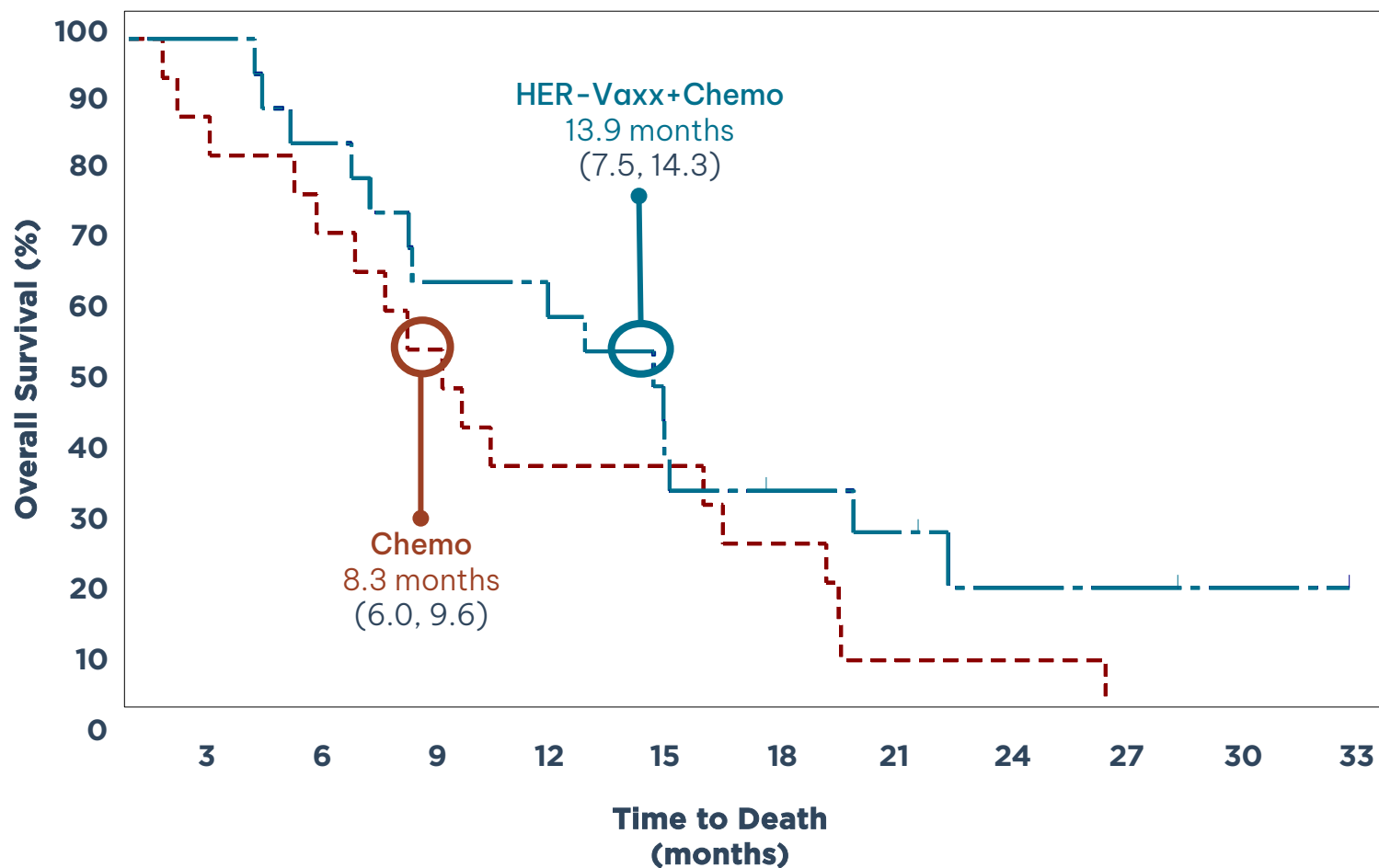
**PRIMARY ENDPOINT** OS  
(pre-spec 1-sided alpha 0.10, power 90% with critical HR 0.6 and 24 events)

**SECONDARY ENDPOINTS** PFS, Safety, Immune Response

**NO. OF PATIENTS** 36

**SITE LOCATION** Eastern Europe, India

# HER-Vaxx SIGNIFICANTLY PROLONGS OVERALL SURVIVAL IN 1L PATIENTS WITH HER-2+ GASTRIC CANCER



|   | HER-Vaxx +<br>Chemotherapy | Chemotherapy             |
|---|----------------------------|--------------------------|
| Sample Size                                 | 19                         | 17                       |
| Events                                      | 15                         | 17                       |
| Median OS<br>(2-sided<br>80% CI)            | 13.9 months<br>(7.5, 14.3) | 8.3 months<br>(6.0, 9.6) |
| Median<br>Duration<br>of Response           | 30 weeks                   | 19 weeks                 |
| HR  | 0.580                      |                          |
| 2-sided<br>80%CI                            | (0.362, 0.927)             |                          |
| Log-rank<br>Test<br>(1-sided p-<br>value) * | 0.066 *                    |                          |

\*Significant, 1-sided p < 0.10

# HER-Vaxx PHASE 2:

## HERIZON SAFETY

### TREATMENT EMERGENT ADVERSE EVENTS

|                                 | HER-Vaxx + CHEMOTHERAPY<br>( N =1 9 ) | CHEMOTHERAPY ONLY<br>( N =1 7 ) |
|---------------------------------|---------------------------------------|---------------------------------|
|                                 | n (%)                                 | n (%)                           |
| Patients with at least one TEAE | 18 (94.7%)                            | 16 (94.1%)                      |
| Grade 1 / 2                     | 10 (52.6%)                            | 9 (52.9%)                       |
| Grade $\geq$ 3                  | 8 (42.1%)                             | 7 (41.2%)                       |
| Serious AE*                     | 2 (10.5%)                             | 5 (29.4%)                       |
| Fatal AE                        | 1 (5.3%)                              | 1 (5.9%)                        |

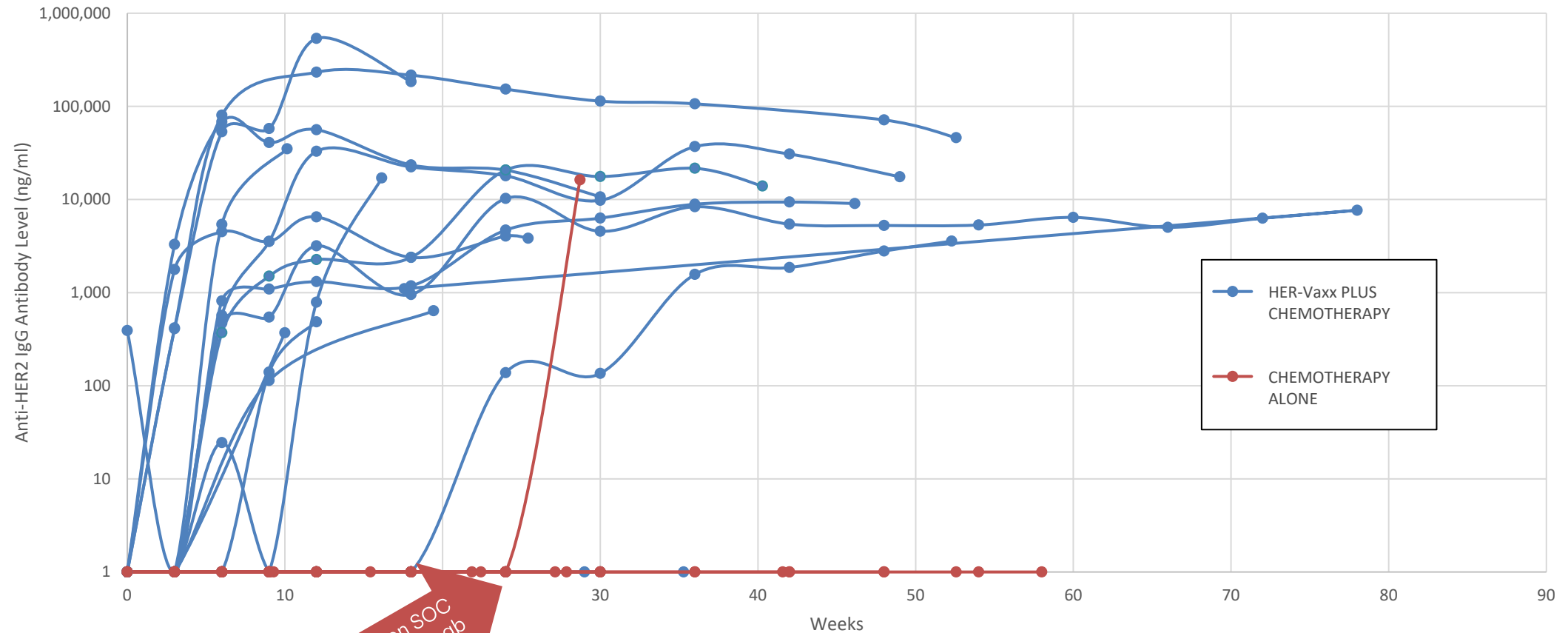
\*SAEs are also included in the  $\geq 3$  AE. N = number of patients in the treatment arm at final analysis. n = number of patients who experienced the event.



# HER-Vaxx PHASE 2:

## HERIZON HER-2 ANTIBODY LEVELS PER PATIENT

HER2-Specific IgG by Treatment Assignment and Study Visit - Logarithmic Scale



Note: Antibodies were analysed from all enrolled patients. Values below LLOQ are represented as "1".

# HER-Vaxx PHASE 2: nextHERIZON IN METASTATIC GASTRIC CANCER AFTER PROGRESSION ON TRASTUZUMAB

ASCO® Gastrointestinal  
Cancers Symposium



TRIAL



PATIENTS



STUDY



ENDPOINTS

- Phase 2
- Open label
- USA, Australia, Asia
- Treat until progression/toxicity

- > 1L
- Advanced or metastatic Gastric Cancer
- HER-2/neu overexpressing
- Progressed on prior trastuzumab

- Non-Randomised
- HER-Vaxx in combination with paclitaxel + ramucirumab  
OR  
HER-Vaxx in combination with pembrolizumab

## Primary

- Objective Response Rate
- Safety

## Secondary

- Overall Survival
- Progression-free survival
- Duration of Response

**First Patient Enrolled Sept 2022**

mGC/GEJ cancer  
HER-2/neu overexpressing  
Progressed on or after trastuzumab &  
previously received PD-1/PD-L1 treatment

Arm 1: HER-Vaxx + SOC Chemotherapy

mGC/GEJ cancer  
HER-2/neu overexpressing  
Progressed on or after trastuzumab

Arm 2: HER-Vaxx + pembrolizumab

PRIMARY ENDPOINTS:  
ORR  
Safety

SECONDARY ENDPOINTS:  
OS  
PFS  
DoR

EXPLORATORY ENDPOINT:  
Biomarker/Immune Response

# HER-Vaxx PHASE 2: neoHERIZON IN RESECTABLE GASTRIC CANCER



## TRIAL

- Phase 2
- Open label
- Randomised
- Germany



## PATIENTS

- Neoadjuvant Gastric Cancer
- HER-2+++ / HER-2++ FISH/CISH +ve



## STUDY

- Arm 1 – FLOT + HER-Vaxx
- Arm 2 – FLOT + Avelumab + HER-Vaxx



## ENDPOINTS

### Primary

- Pathological Complete Response

### Secondary

- Safety
- Immune Response
- Duration of Response/Overall Survival



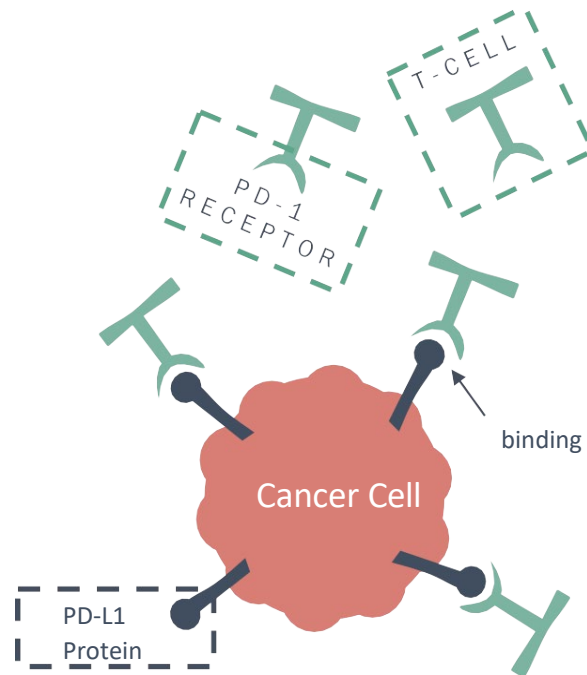


# PD1-Vaxx



# PD1-VAXX STOPS CANCER CELLS FROM USING PD1 TO STAY UNDETECTED BY THE IMMUNE SYSTEM

PD-L1 binding to PD-1 prevents T cell recognition and killing of cancer cells

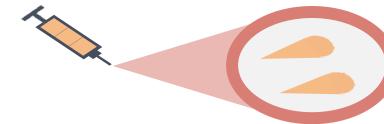


Cancer cells express PD-L1 which binds to the PD-1 receptor on T cells

PD1-Vaxx stops cancer cells from staying undetected by T cells

PD1 - VAXX  
B cell vaccine

ANTI PD-1 pAb



1

Induces the body to produce polyclonal antibodies (pAb)

2

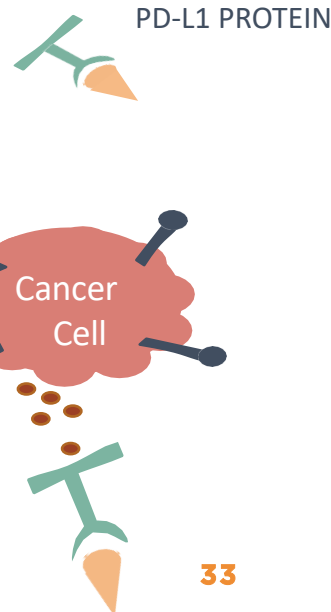
Anti-PD1 pAb binds PD1 on the T cell

3

Anti-PD1 pAb blocks PD-L1 interaction on cancer cell

4

T cells recognize cancer cells and mount an immune response





# IMPRINTER:

## PD1-Vaxx NSCLC PHASE 1 STUDY DESIGN

### Phase 1: PD1-Vaxx Monotherapy Dose Escalation & Expansion

2L+ NSCLC Progressed on/after ICI

**Cohort 1**  
10 µg  
PD1-Vaxx  
n = 3-6

**Cohort 2**  
50 µg  
PD1-Vaxx  
n = 3-6

**Cohort 3**  
100 µg  
PD1-Vaxx  
n = 3-6

MONOTHERAPY  
OBD

**Expansion**  
mOBD  
PD1-Vaxx  
n = 10

### Phase 1b: PD1-Vaxx NSCLC Combination Dose Escalation & Expansion

#### ARM 1: TPS/TC $\geq$ 50% or IC $\geq$ 10%

**Cohort 1**  
10 µg  
PD1-Vaxx +  
atezolizumab  
n = 3-6

**Cohort 2**  
50 µg  
PD1-Vaxx +  
atezolizumab  
n = 3-6

**Cohort 3**  
100 µg  
PD1-Vaxx +  
atezolizumab  
n = 3-6

COMBINATION  
OBD\*

**ARM 1: Progressed on/after ICI**  
TPS/TC  $\geq$  50% or IC  $\geq$  10%

cOBD PD1-Vaxx + atezolizumab  
n = 10

**ARM 2: Naïve to ICI**  
TPS/TC  $\geq$  50% or IC  $\geq$  10%

cOBD PD1-Vaxx + atezolizumab  
n = 10

**ARM 3: Naïve to ICI**  
Any PD-L1 Level

cOBD PD1-Vaxx + atezolizumab +  
chemotherapy  
n = 10

#### ARM 2: Any PD-L1 Level

**Cohort 1**  
10 µg  
PD1-Vaxx +  
atezolizumab +  
chemotherapy  
n = 3-6

**Cohort 2**  
50 µg  
PD1-Vaxx +  
atezolizumab +  
chemotherapy  
n = 3-6

**Cohort 3**  
100 µg  
PD1-Vaxx +  
atezolizumab +  
chemotherapy  
n = 3-6

mOBD = monotherapy optimal  
biological dose  
cOBD = combination optimal  
biological dose  
\*cOBD will be determined per arm

# VALUE INFLECTION POINTS EXPECTED IN THE NEXT 12 MONTHS

| ✓ | TECHNOLOGY  | MILESTONE  |
|---|-------------|--|
|   | VAXINIA     | MAST: Combination OBD IV                                 |
|   | onCARlytics | FPI  |
|   | HER-Vaxx    | neoHERIZON: FPI  |
|   | HER-Vaxx    | nextHERIZON: Interim Data Readout                        |
|   | VAXINIA     | MAST: Optimal Biological Dose (Monotherapy IV and/or IT) |
|   | HER-Vaxx    | neoHERIZON: CTA Clearance                                |
|   | CHECKvacc   | Dominica: FDA IND  |
|   | CHECKvacc   | COH IST: Optimal Biological Dose                         |
|   | PD1-Vaxx    | IMPRINTER: Combination FPI                               |
|   | onCARlytics | FDA IND  |
|   | CHECKvacc   | COH IST: IT Cohort 3 Cleared                             |
|   | VAXINIA     | MAST: Combination FPI IT and/or IV                       |
|   | VAXINIA     | MAST: IV Cohort 2 Cleared                                |
|   | HER-Vaxx    | HERIZON: Publication and Presentation (ASCO GI)          |
|   | HER-Vaxx    | nextHERIZON: Trial in Progress Poster (ASCO GI)          |
| ✓ | VAXINIA     | MAST: IV Cohort 1 Cleared                                |
| ✓ | onCARlytics | Strategic Partnership with Arovella on CAR19-iNKT        |
| ✓ | VAXINIA     | MAST: IV Arm - 1 <sup>st</sup> Patient Dosed             |
| ✓ | HER-Vaxx    | nextHERIZON: Phase 2 - 1 <sup>st</sup> Patient Dosed     |
| ✓ | HER-Vaxx    | HERIZON: Phase 2 Final OS readout                        |

NEXT 1 -12 MONTHS

# FINANCIAL SUMMARY

## PUBLIC MARKET OVERVIEW (January 4, 2023)

|                                     |                 |
|-------------------------------------|-----------------|
| Share Price                         | A\$0.155        |
| 52 week range                       | \$0.13 - \$0.43 |
| Market Capitalisation <sup>1</sup>  | A\$995M         |
| Cash equivalents (30 September '22) | A\$164M         |
| Enterprise Value                    | A\$831M         |

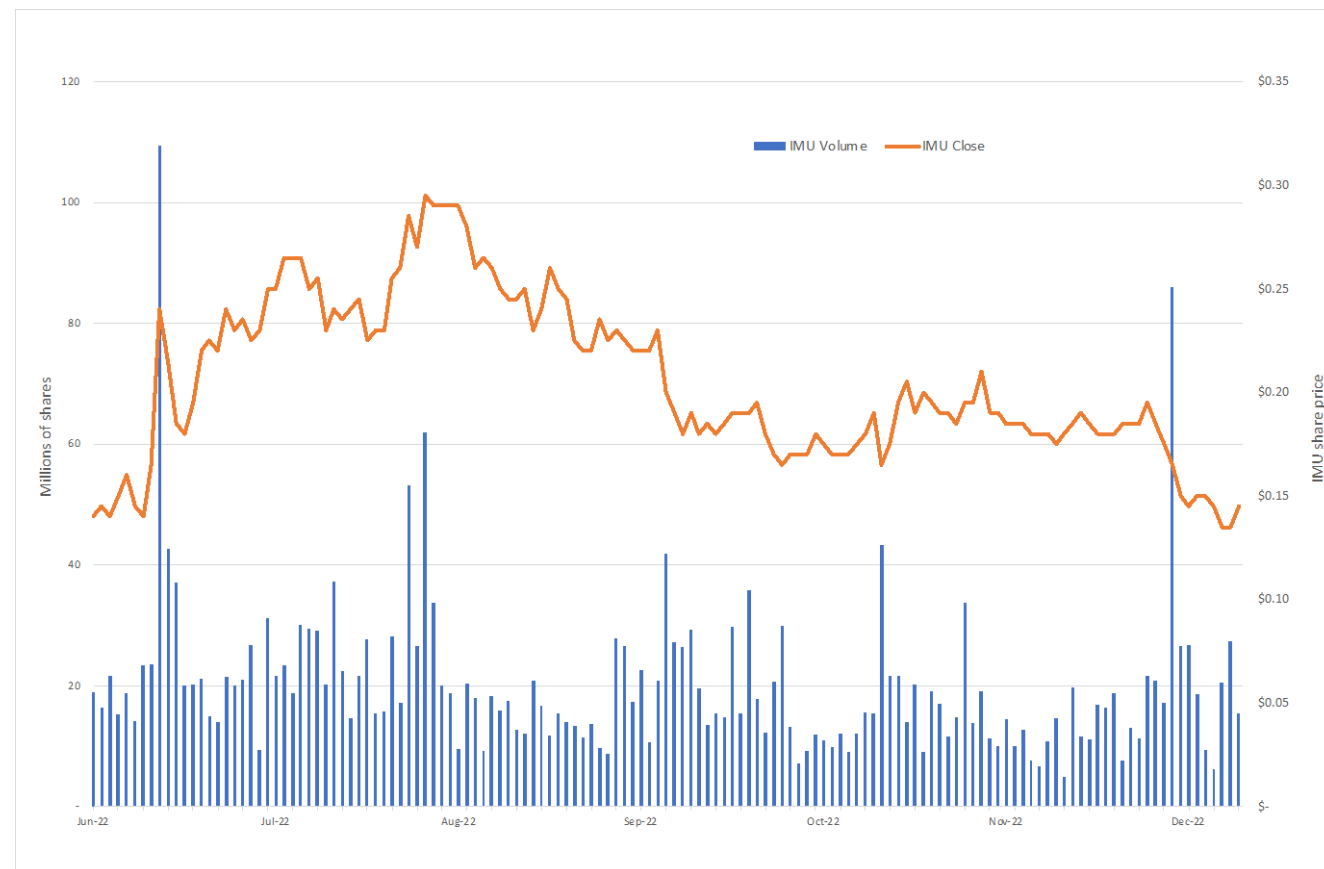
## TOP 5 SHAREHOLDERS (as at January 4, 2023)

|   |       |
|---|-------|
| JP Morgan Nominees Australia Pty Limited  | 9.24% |
| HSBC Custody Nominees (Australia) Limited | 5.69% |
| Paul Hopper                               | 4.94% |
| Mann Family                               | 4.60% |
| Citicorp Nominees Pty Limited             | 4.58% |

### Note:

1. Market capitalisation calculations based on ordinary shares (6.422 bn) only and excludes the dilutive impact of options outstanding (0.477 bn)

## SHARE PRICE PERFORMANCE



# INVESTMENT HIGHLIGHTS

**MARKET CAPITALISATION** 4<sup>th</sup> Jan 2023

A\$995M

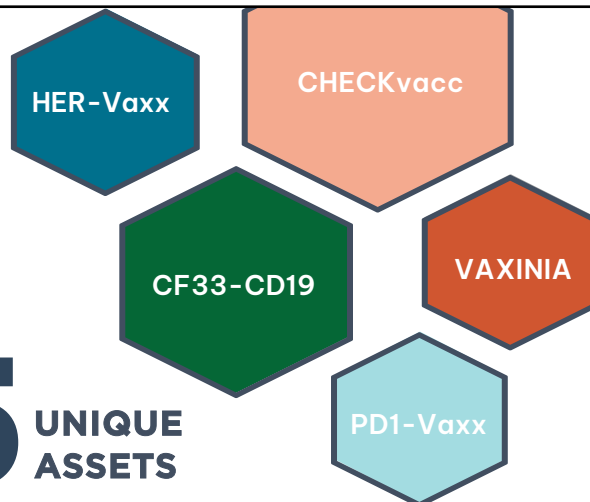


**CASH AS OF** 30<sup>th</sup> Sep 2022

A\$164M



**5** UNIQUE ASSETS



\*Multiple potential platform targets

CF33-CD20 LAG3-Vaxx CTLA4-Vaxx  
TIGIT-Vaxx PDL1-Vaxx TIM3-Vaxx

CF33  
Oncolytic Virus

onCARlytics

B-Cell  
Immunotherapies

**3** PLATFORM TECHNOLOGIES



Celularity

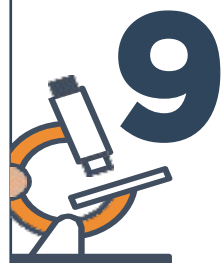
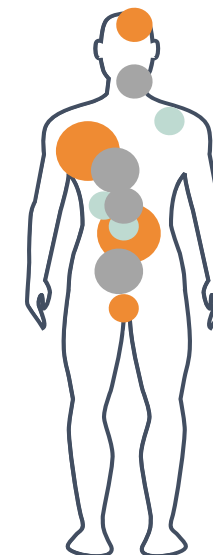
Eureka

Arovella

**3** SCIENTIFIC COLLABORATIONS

## DISEASE AREAS

Breast (TNBC)  
Lung (NSCLC)  
Gastric  
Gastroesophageal  
Colorectal (CRC)  
Melanoma  
Head and Neck  
Hepatocellular  
Pancreatic  
Glioblastoma (GBM)



## CLINICAL STUDIES

HERIZON: Ph1b/2 First line Gastric Cancer  
IMPRINTER: Ph1 NSCLC (FDA IND)  
CHECKvacc COH IST: Ph1 TNBC (FDA IND)  
neoHERIZON: Ph 2 Neoadjuvant Gastric Cancer  
nextHERIZON: Ph2 Metastatic Gastric Cancer (FDA IND)

MAST: Ph1 Solid Tumors (FDA IND)  
DOMINICA: Ph1 TNBC (FDA IND)  
onCARlytics: Ph1 Solid Tumors (FDA IND)  
neoPolem IST: Ph1 CRC

**2** SUPPLY AGREEMENTS



Merck  
KGaA/Pfizer

Roche

# Contact

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Developing Cancer Immunotherapies