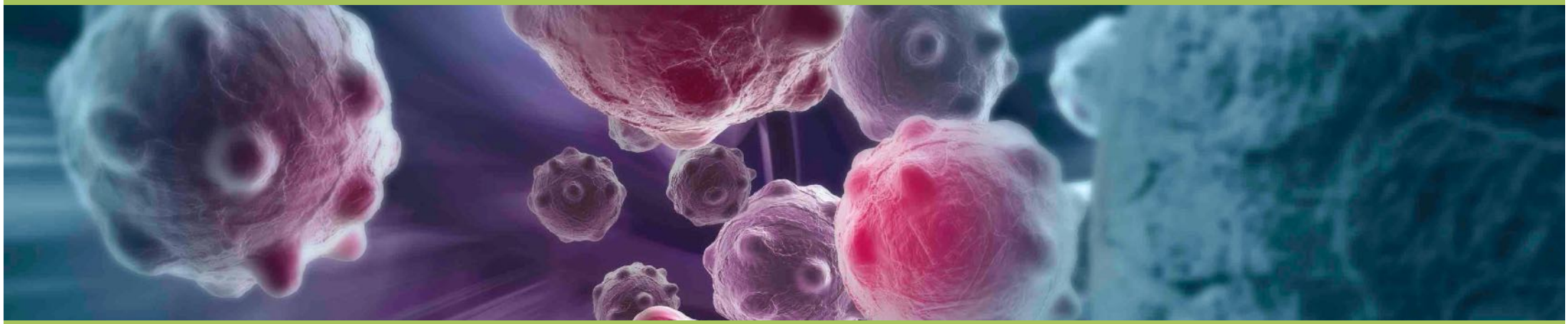
Cartherics Pty Ltd

Rearming the Immune System to Fight Cancer



Ian Nisbet, Chief Operating Officer

Biotech Showcase, January 2023

Acknowledgement of Traditional Owners

In the spirit of reconciliation, Cartherics acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

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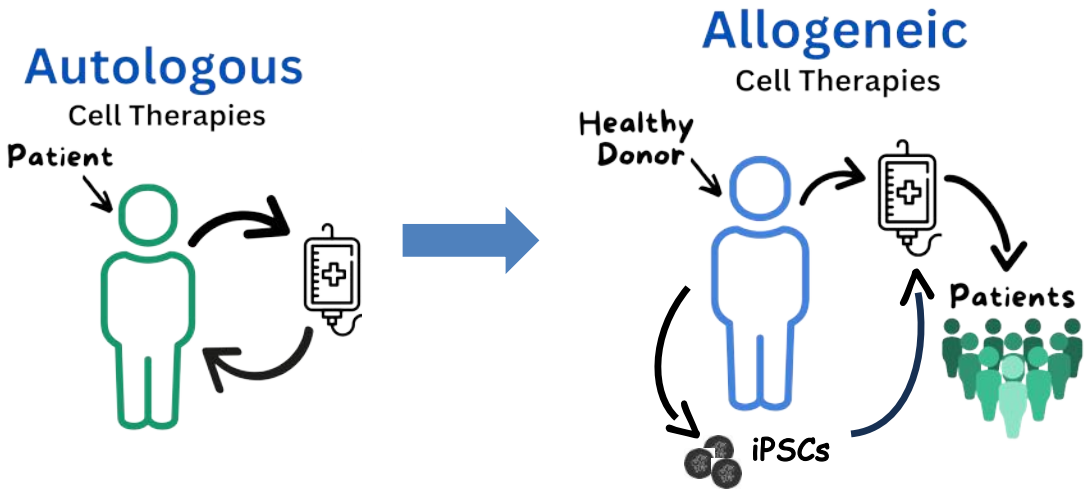
Cell Therapies for the Treatment of Cancer

Autologous CAR-T cells have emerged as a powerful new treatment option for leukemias, lymphomas and multiple myeloma

BUT they have limitations

- Expensive, difficult and time-consuming to manufacture
- Patient-specific
- Heterogenous
- Potential for severe side effects
- Limited efficacy in solid tumors



Allogeneic cell therapies could address many of these limitations

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Cartherics Pty Ltd

Established to create a powerful allogeneic ("off-the-shelf") cell therapy platform

Private company

- Based in Melbourne, Australia
- Commenced operations Jan 2016
- Currently ~45 employees

Funding

- Raised >US$35M in private investment and grants

Facilities

- Purpose-built, 18,600 sq ft R&D facility opened 2022
- Clean room capacity for clinical trial production

Products

Two autologous CAR-T cell products

- Proof of concept for CAR constructs and gene edits
- Due to enter the clinic in 2023 via clinical collaborator

Allogeneic platform

- Primary focus – first product to enter the clinic in 2025

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Exceptional Leadership and Team

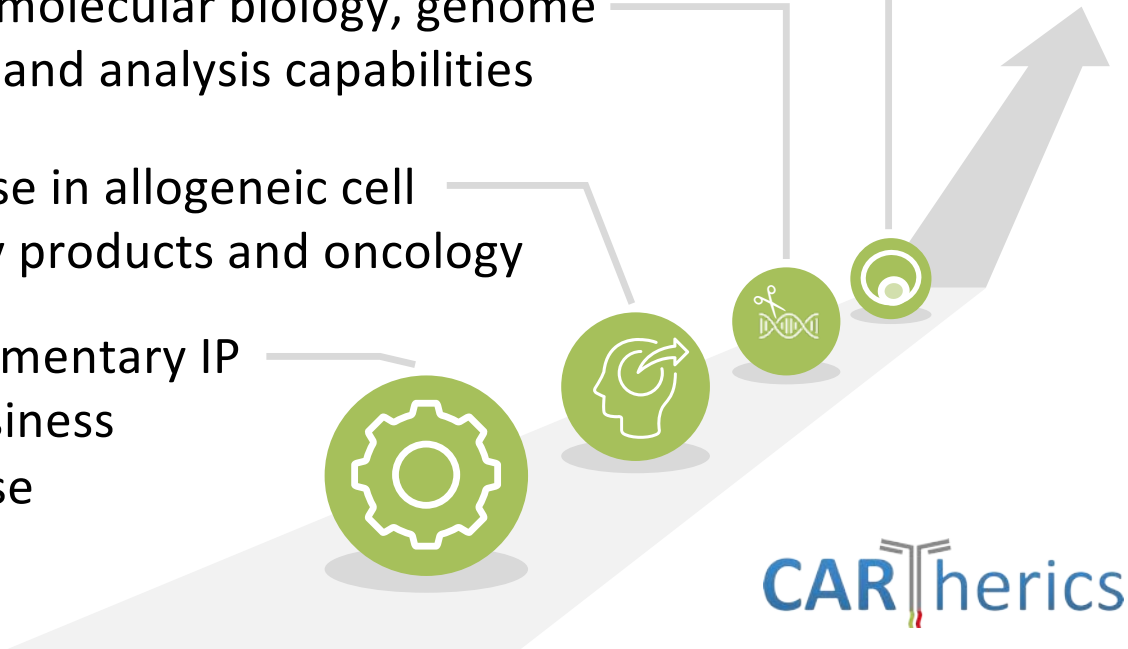
Led by internationally recognized CEO, Prof Alan Trounson, Cartherics has assembled a world-class team

Prof Alan Trounson, CEO

- IVF pioneer
- International stem cell expert
- Ex-President, California Institute for Regenerative Medicine (CIRM)

"Alan Trounson is ranked among the world's most prominent scientists"
Research.com (April 2022)

- Deep stem cell and immunology technical expertise
- Strong molecular biology, genome editing and analysis capabilities
- Expertise in allogeneic cell therapy products and oncology
- Complementary IP and business expertise



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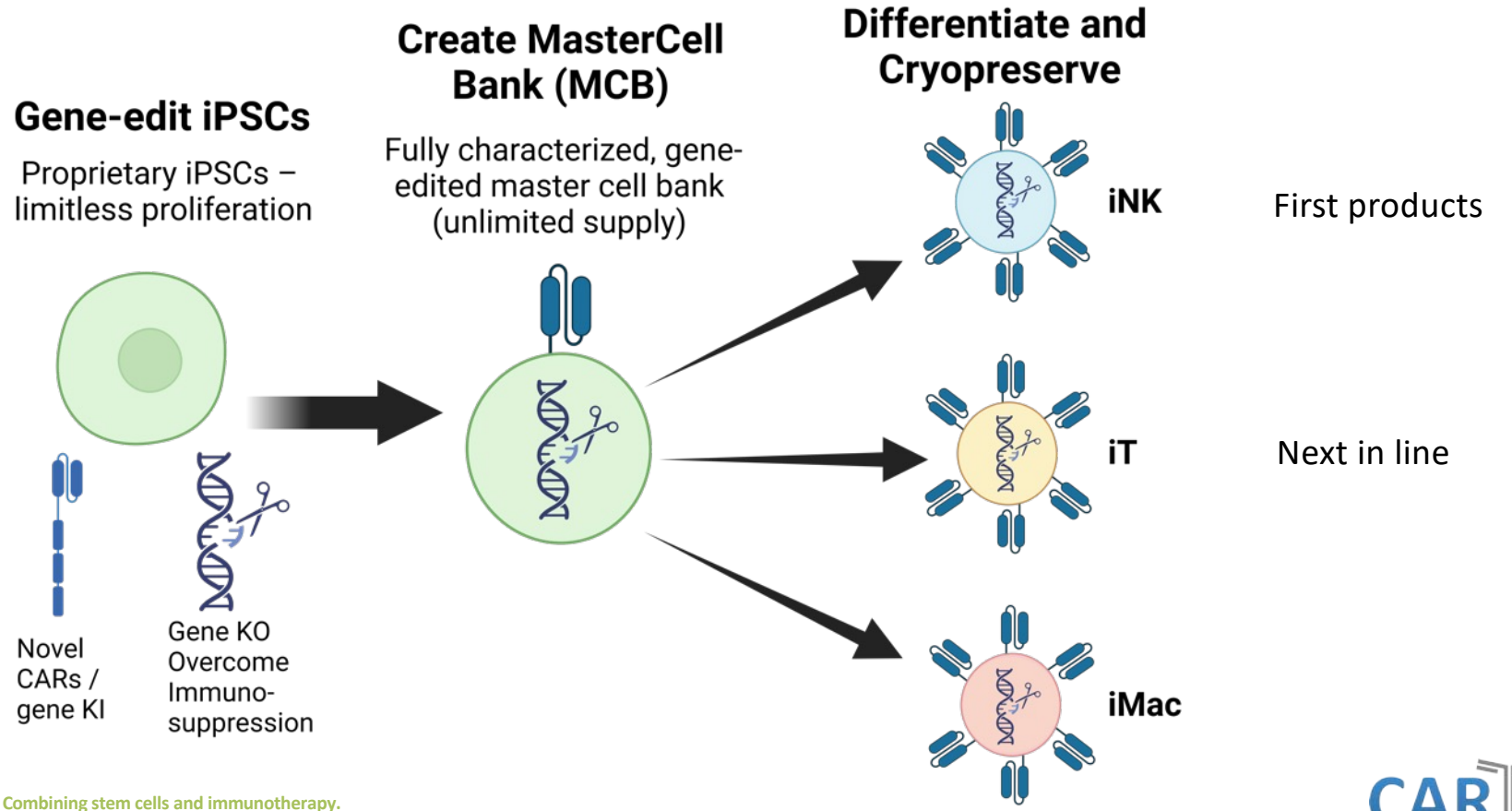
Cartherics' Allogeneic Cell Therapy Platform

Provides ability to rapidly develop multiple products, multiple cell types

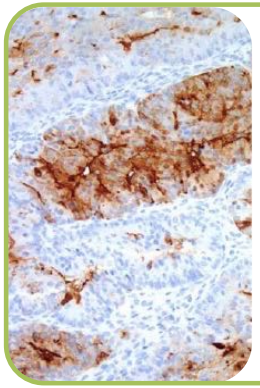


Lead Product Candidate: CTH-401

NK cell exemplar of Cartherics' platform

iPSCs gene-edited using CRISPR/Cas9

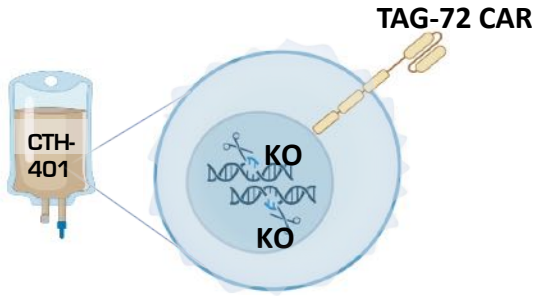
- TAG-72 CAR Knock-in
  - Complements normal NK cell killing functions
- Immunosuppressive gene Knock-outs
  - Enhance anti-tumoral efficacy
- KI and KOs validated in autologous CAR-T cells



Tumor-associated glycoprotein-72 (TAG-72)

- Well-validated tumor target
- Found on many adenocarcinomas, including ovarian, gastric, colorectal, pancreatic cancers

Image: Ovarian cancer biopsy with TAG-72 staining (brown) by immunohistochemistry



Initial indication: relapsed or refractory ovarian cancer

- Significant unmet need
- 90+% TAG-72+
- Potential for expansion into other TAG-72+ solid tumors

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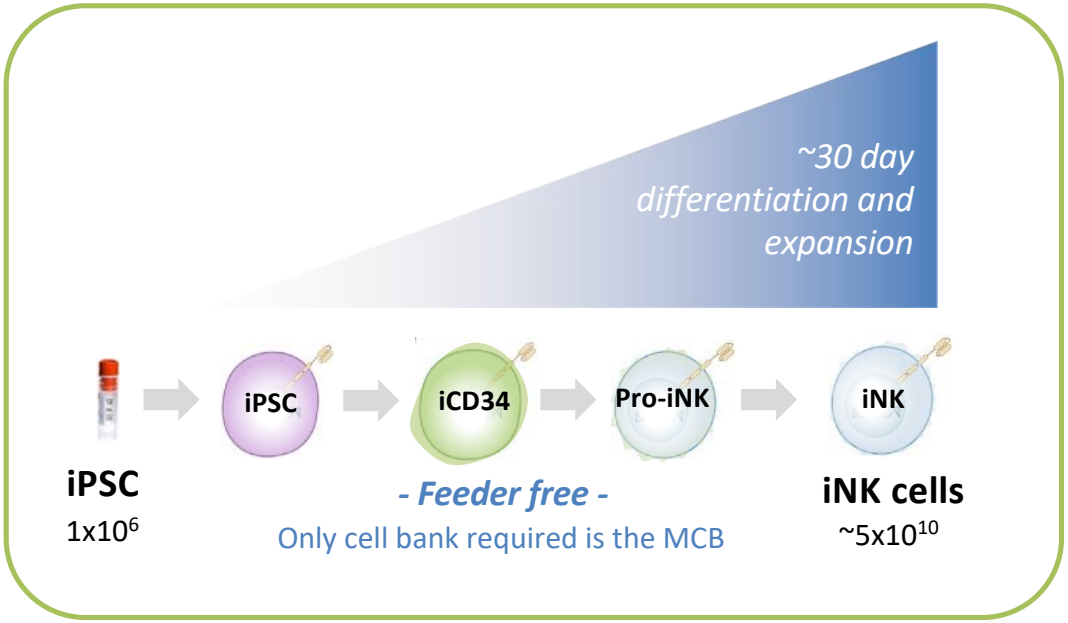
CTH-401 Manufacturing

Proprietary iNK cell manufacturing process



Unique strengths of our approach

1 **Feeder-free**

- ✓ Reduced risk of support cell contamination
- ✓ Reduced variability with cell-cell cross-talk
- ✓ Potential to automate

2 **Potent iNK phenotype**

- ✓ Consistent high-purity
- ✓ On-target functionality

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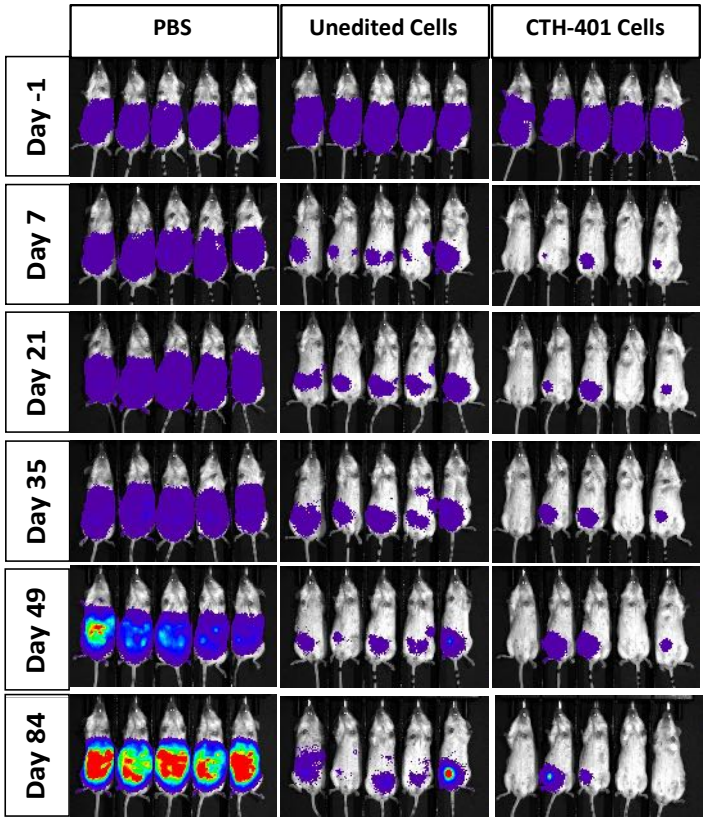
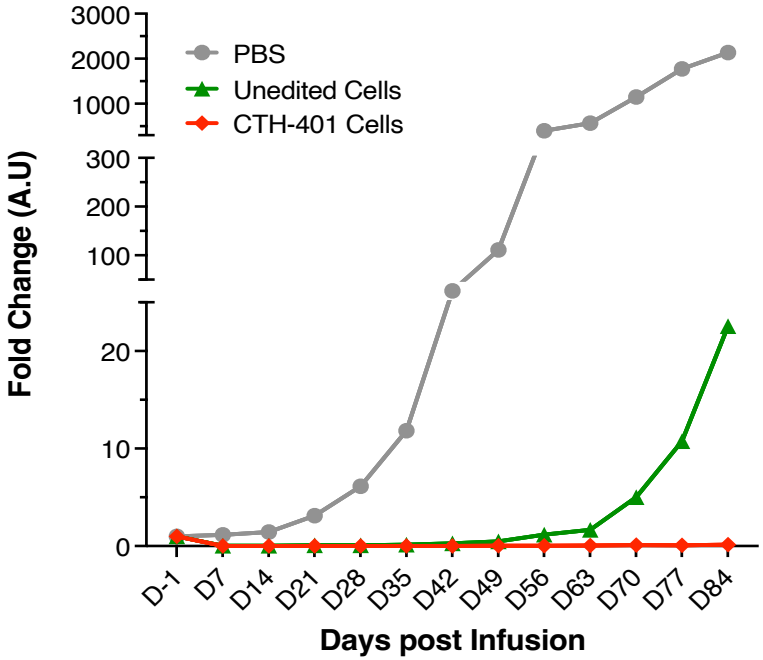
CTH-401 Kills Ovarian Cancer *in vivo**



CTH-401 TAG-72 CAR and gene KO **enhance** and **prolong** anti-tumor activity



*Luciferase-labeled OVCAR-3 cells administered i/p on D-4; NK cells administered on D0 (E:T ratio 50:1); bioluminescence monitored weekly and normalized to D-1 signal; median fold-change in luminescence (Arbitrary Units) is shown through to study termination (D84).

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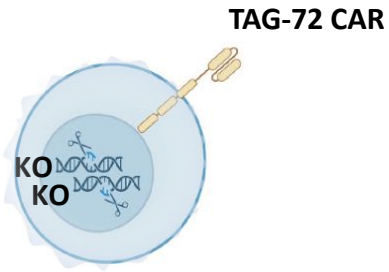
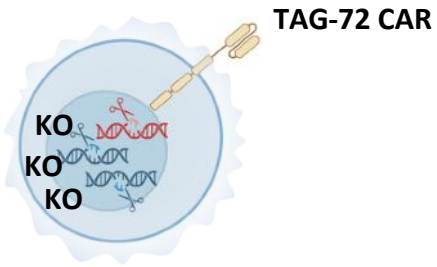
Product Pipeline

Allogeneic platform enables generation of multi-functional products, multiple cell types

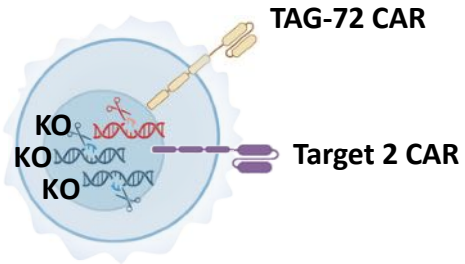


CTH-401 iNK

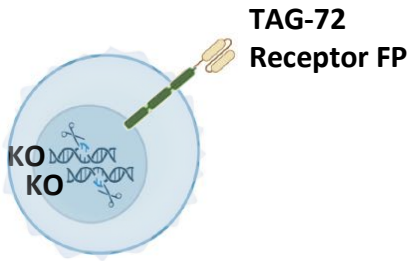
- IND and FIH in ovarian cancer target 2025
- Follow-on basket trial in TAG-72+ solid tumors



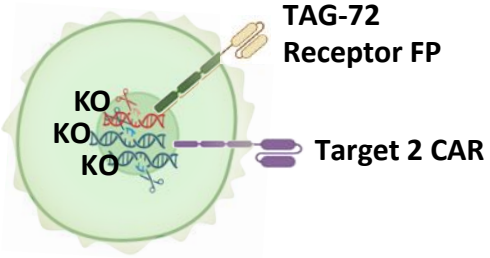
CTH-400 series iNK
(Complementary KOs)



CTH-600 series iNK
(Single / dual CARs + KOs)



CTH-500 series iNK
(Novel receptor fusion proteins)



CTH-300 series iT cells
(Single / dual CARs + KOs)

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IP Portfolio

Currently >30 active filings and 10 issued patents across 5 patent families, plus complementary in-licensed patent families

Patents

- Specific CAR constructs for public domain targets
- Portfolio of gene KOs that enhance immune function
- Engineered iPSCs that can be differentiated into functional immune cells
- Additional enhancements - novel receptor fusion constructs, growth factors

Trade secrets

- Methods for feeder-free differentiation of iPSCs to functional immune cells

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Cartherics' Strengths and Points of Differentiation

Proprietary iPSC-derived cell technology and platform

- Unlimited supply
- **Feeder-free** differentiation process
- Ability to generate **multiple types** of immune cells

Exclusive focus on solid tumors

- Greatest unmet need and commercial potential
- Promising *in vivo* results for CTH-401 in solid tumor models

"Mix and match" of novel tumor targets and gene KOs

- TAG-72 – validated **pan adenocarcinoma** target
- CARs against other targets (alone or combined with TAG-72)
- Complementary gene KOs

Growing IP portfolio all major jurisdictions

- Patent protection for multiple product elements

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Forward Plan

Cartherics is poised for near- and medium-term growth and value creation

Cartherics plans to raise US$20M in 2023/24 to fund activities to 2025/26

New funds will be used for:

- Additional resources for FIH product manufacture
- Production of clinical trial batches
- CTH-401 IND-enabling studies
- Filing of CTH-401 IND (2025 target)
- FIH clinical trial in ovarian cancer
- Expansion and advancement of R&D pipeline

Interested in Investing or Partnering?

Further information available from:

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