

It All Starts With Biology.

Ori is focused on delivering industry-leading biological performance. Together with industry leaders, we've developed a platform specifically designed to match the complexity of life-saving cell and gene therapies. We are working to get the biology right first to meet the unique manufacturing needs of our industry.

Changing the Status Quo.

Today:

CAR-T therapies are manufactured using manual or semi-automated all-in-one technologies

Biological processes are adapted to fit inflexible manufacturing platforms

Ultimately leading to CAR-T processes with sub-optimal biological performance and increased process variability

The Proof is in the Numbers.

Data from 500 internal and external characterization runs at Ori and LEAP partner sites show the potential of the Ori platform.

10 Partners

Ori's LightSpeed Early Access Program (LEAP) includes 5 therapy developers, 4 CDMOs and 1 AMC

10 Unique Processes

Different processes including CAR-T, TCR-T, TILs, CD34+ with CAR-M and others on the horizon

40 Donors / Patients

Testing the platform's ability to address donor and patient variability, showcasing the robustness of system outputs across different starting material

50M Starting Cell

The minimum starting cell number assessed to date

50ml to 1000ml

Flexible operating volume range allows activation, transduction and expansion in one bioreactor

12B Cells

Maximum cell yield observed from bioreactor (~170x fold expansion)



Study 1

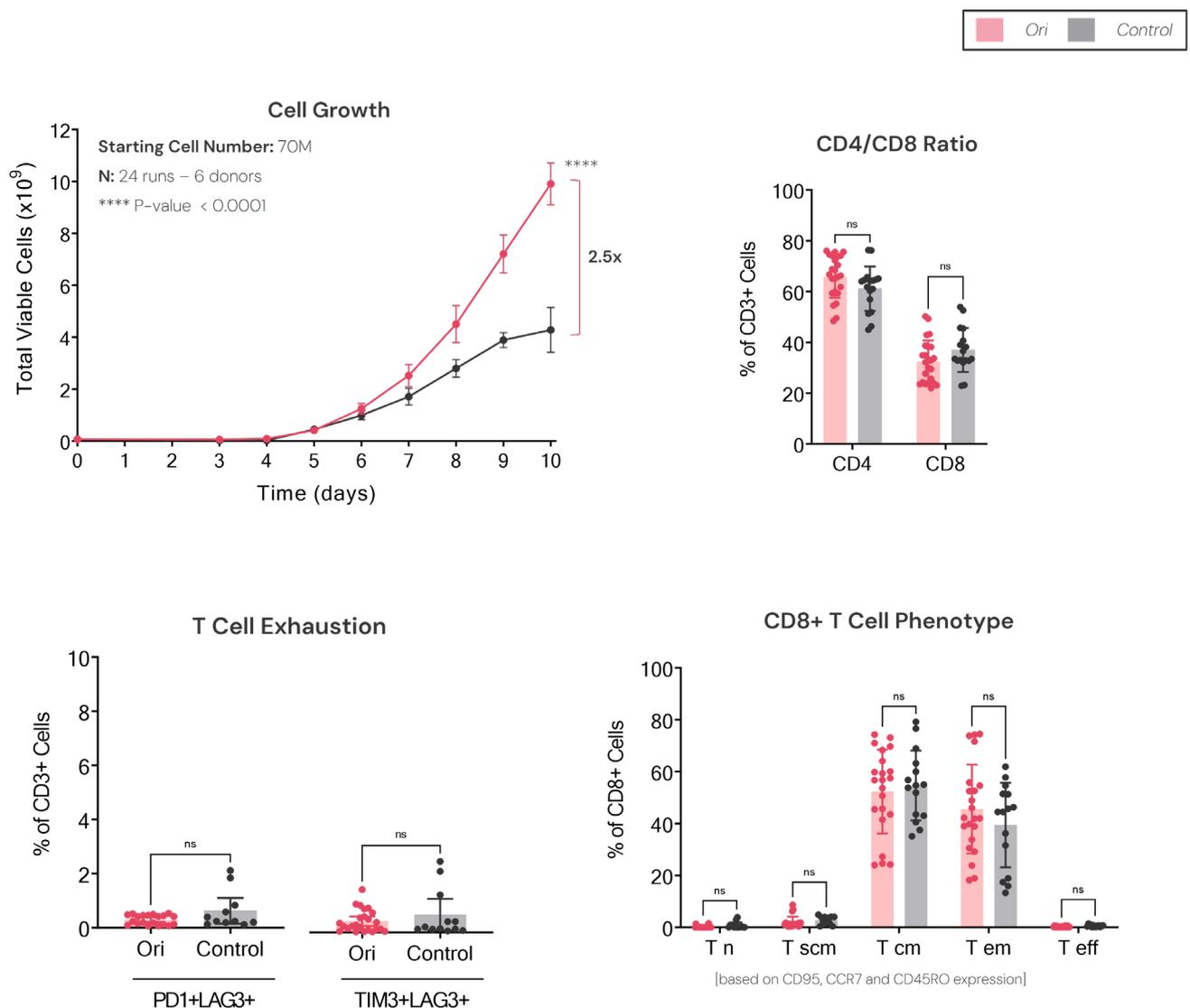
Ori T-Cell Process Results.

Key Takeaways

Achieves a maximum cell yield up to **2.5x higher** than a widely used cell expansion system using the same raw materials (cells, cytokines, media, etc.)

Consistently reaches **1-2B total cells in 4-6 days** and can achieve **10-12B cells in 10 days, maintaining >95% viability**

Delivers high quality T cells with a **desirable T cell memory phenotype and no evidence of exhaustion**



Study 2

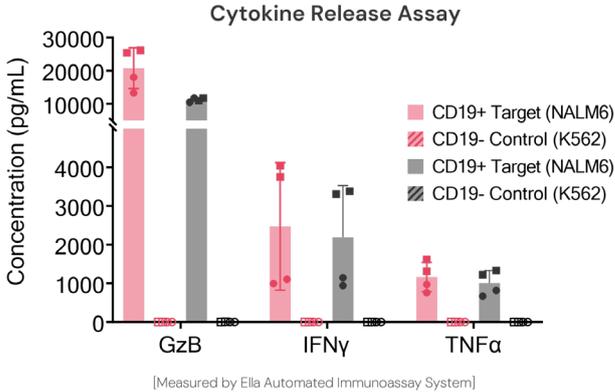
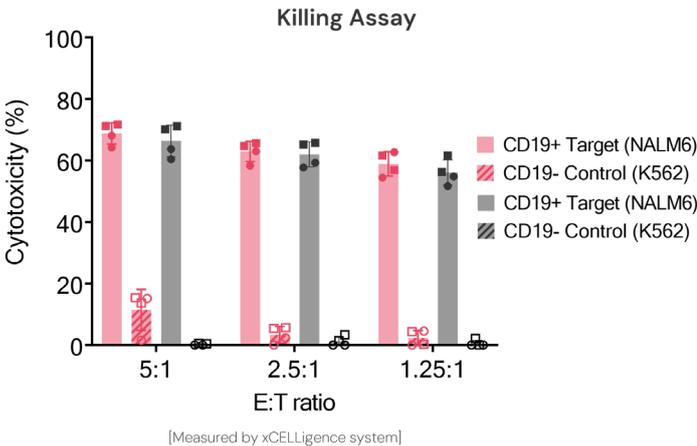
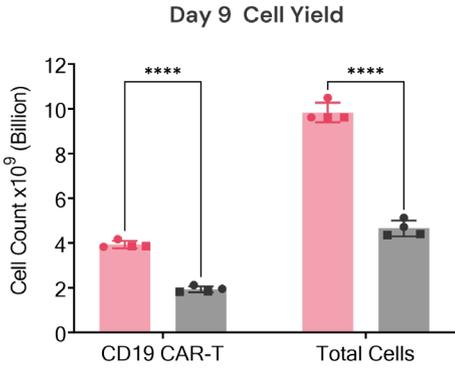
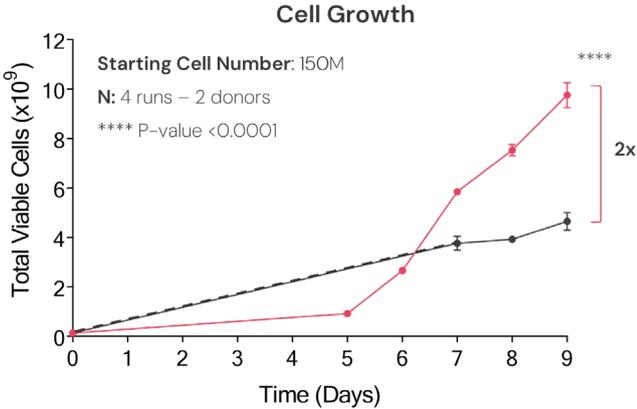
Ori CD19 CAR-T Process Results.

Key Takeaways

The Ori platform has delivered **more than 2 billion CD19 CAR-T cells in 7 days** and up to **4 billion CD19 CAR-T cells in a 9-day process**

Delivers **high quality T cells with a desirable T cell memory phenotype** and comparable to the control

Produces **functional CAR-T cells** measured by cytokine release and killing assays after co-culturing with NALM6, a CD19-positive cancer cell line



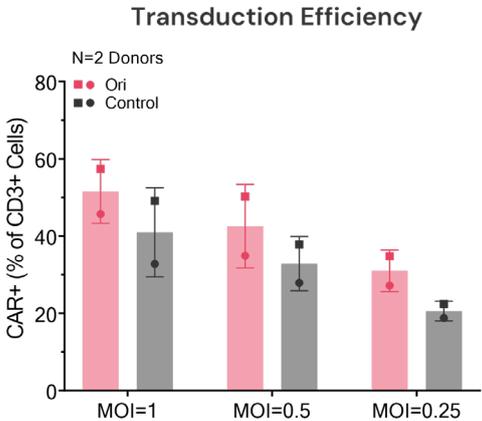
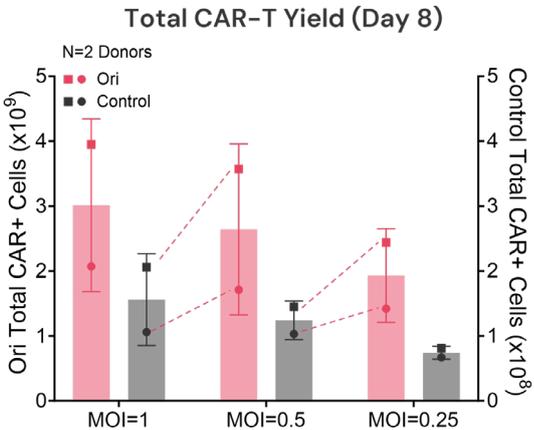
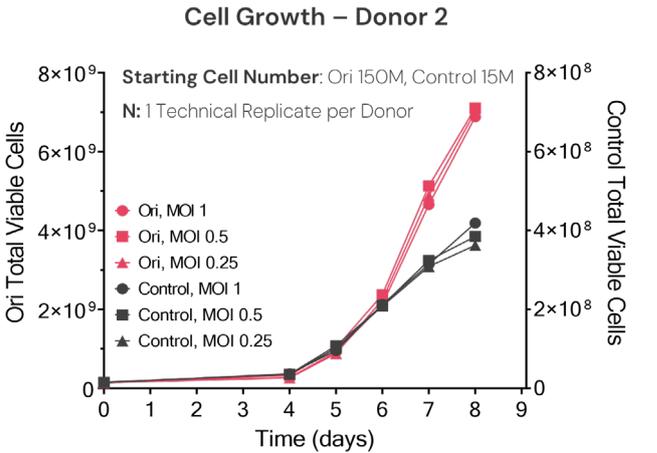
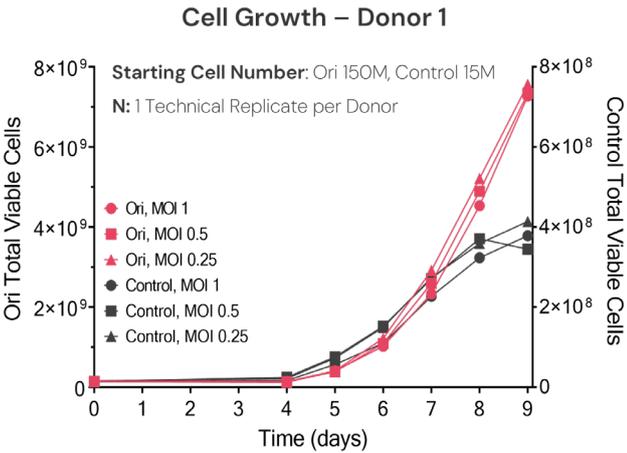
Study 3

Ori CD19 CAR-T Data – Different MOIs.

Key Takeaways

Higher transduction efficiency was observed in Ori using an updated and optimised protocol compared to Control* across the tested Multiplicity of Infections (MOI)

Higher yield of CAR-T cells can be achieved in Ori platform using MOI 0.5 and 0.25 compared to an industry-standard platform (Control) using MOI 1.0. This demonstrates the possibility of **reducing the virus needed** to achieve a target CAR-T yield and ultimately **reducing cost of goods**



*A scale-down vessel (10x smaller) of a widely used cell expansion system was used as a control



Study 3

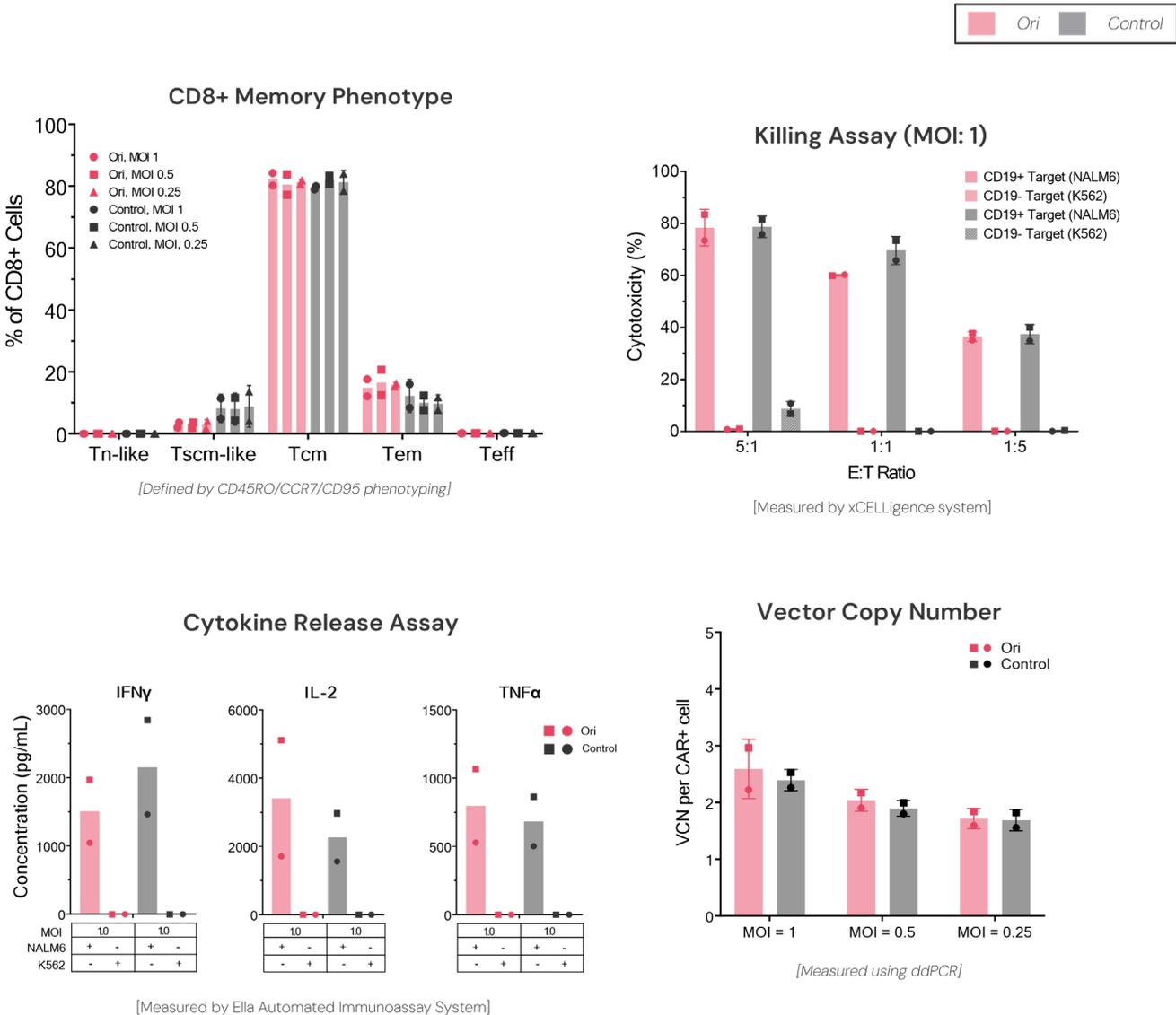
Ori CD19 CAR-T Data – Different MOIs.

Key Takeaways

Similar memory phenotype was achieved across Ori and the Control

Comparable CD19-specific cytotoxicity and cytokine production when CAR-T from Ori and Control are co-cultured with NALM6 tumor cell line

Vector Copy Number (VCN) <3 copies per CAR+ cell, across all MOI tested (below the FDA criteria of 5)



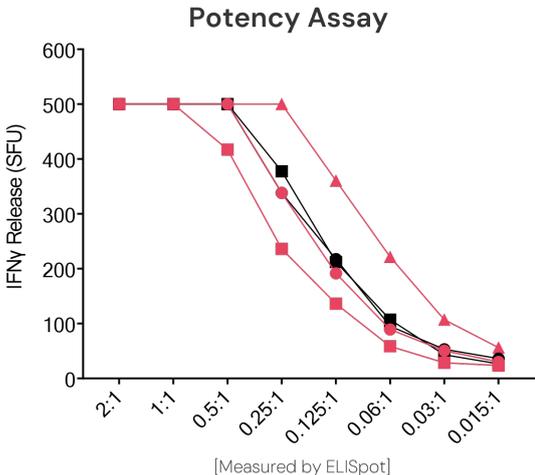
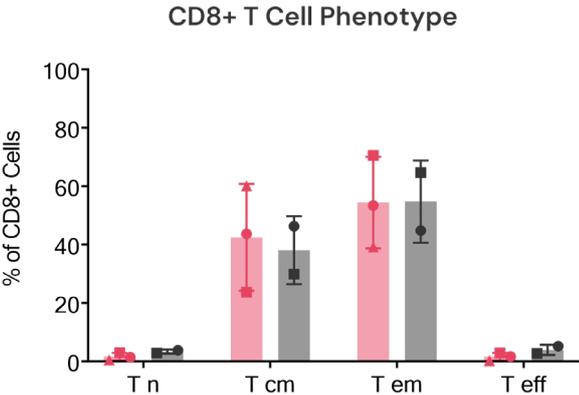
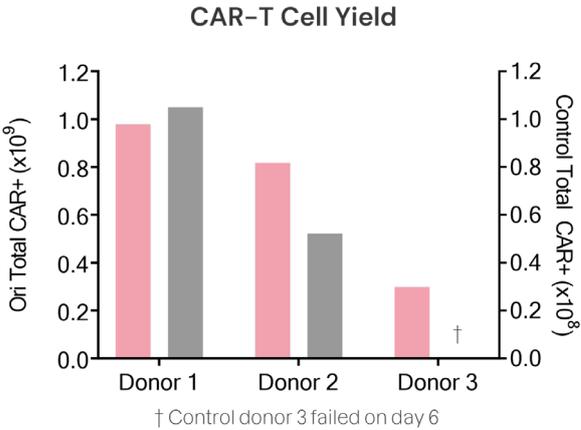
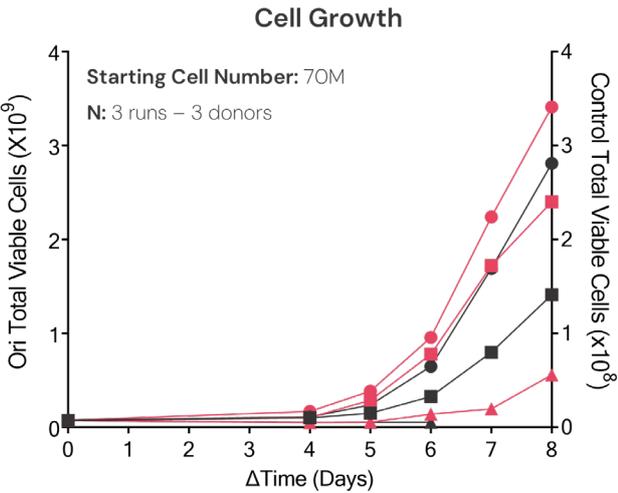
Study 4

Ori LEAP Partner CAR-T Process Results.

Key Takeaways

After 3 weeks of tech transfer, our partner ran 3 CD19 CAR-T runs on their site using 3 different donors and their CAR construct

Biological Outcome	Customer Target	Ori Platform
Fold Expansion	>30x fold expansion	45x, 34x, 7x
Viability	>90%	>90%
Transduction Efficiency (MOI: 1.5)	>25%	Average 38.7%



Manufacturing Brighter Futures.

Ori is a London and New Jersey-based manufacturing technology company pioneering flexible process discovery with seamless translation and scalable commercialization of cell and gene therapies.

Since 2022, Ori's LEAP program has been giving leading industry partners, like [Inceptor Bio](#), [CTMC](#) (a joint venture between [Resilience](#) and [MD Anderson](#)), [Adthera Bio](#) and an undisclosed big pharma partner, access to Ori's proprietary CGT manufacturing platform prior to commercial launch in 2024. These LEAP partners have been doing feasibility testing of Ori's digitally native manufacturing platform to accelerate their progress toward the scalable production of novel cell therapies.

Explore How the Ori Platform May Benefit Your Program.

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