

MitoStemX, a universal media supplement to enhance your T cell therapies

MitoStemX boosts the **fitness** and **persistence** of T cells, optimizing therapies for greater efficacy and durability.



INNOVATIVE

Resulting from 10Y+ of research, MitoStemX combines two small molecules that synergistically target **T cell metabolism**, enhancing their fitness and persistence.



VERSATILE

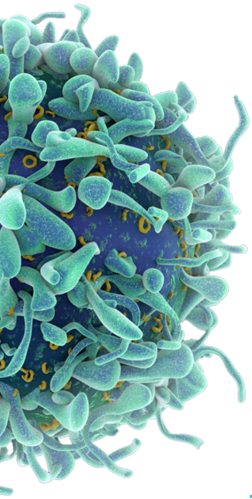
Compatible with various **CAR/TCR constructs**, with multiple clinical-grade cell **culture media**, supports diverse **culture vessels** and a broad range of **additives**.



TRACEABLE

MitoStemX is **chemically defined** and **animal component-free**. It can be easily **washed-out** from culture media and **quantified** before infusion into patients.

*Matwin Prize 2023

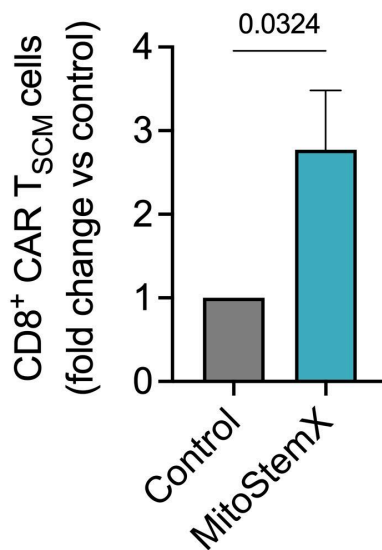
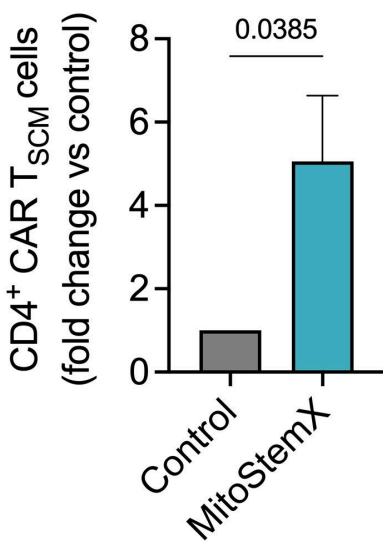
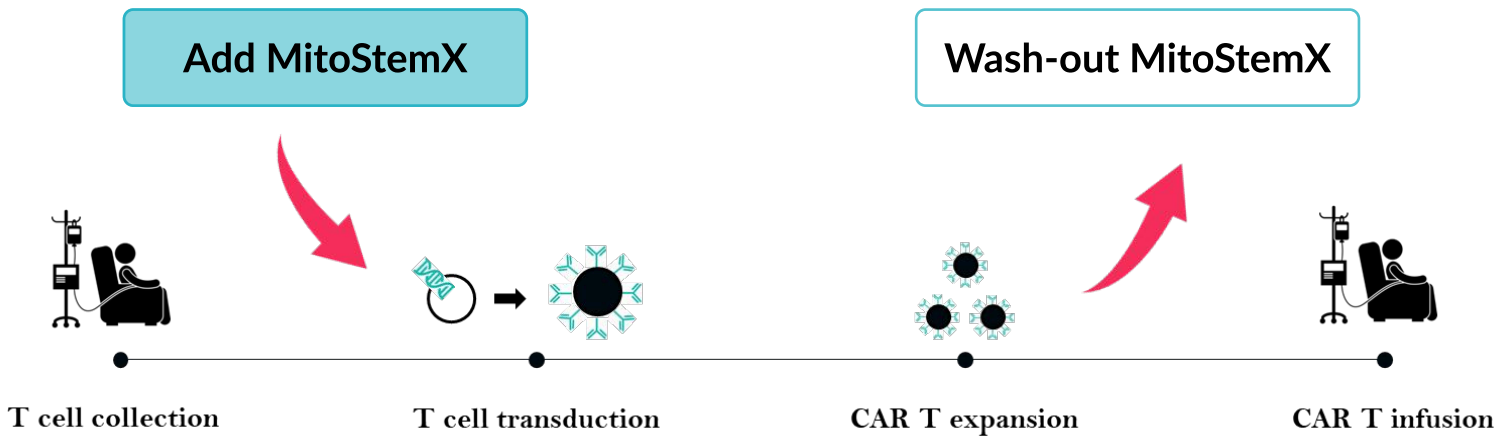


MitoStemX boosts the fitness and persistence of T cells

By targeting key metabolic switches, MitoStemX drives stem cell-like memory phenotype (Tscm).

A higher proportion of Tscm in the infused product correlates with improved clinical efficacy and durability. (Ref 1, Ref 2)

MitoStemX creates products with up to 90% Tscm across multiple culture media



Experimental Protocol

- 19-28z CAR T cells produced in G-REX
- Using leading xeno-free clinical-grade culture media
- Tscm cell surface markers: CD62L⁺, CD45RO⁻, CD45RA⁺, CCR7⁺
- Supplemented with IL-2, IL-7 and IL-15

Interested in knowing more ?



DISCOVER OUR PUBLICATIONS

Learn about the superiority and the mechanism of action of Mito-66, the core component of MitoStemX



MEET OUR EXPERTS

Ask your questions to our team and explore our progressive licensing plans

[BOOK !](#)



PARTNER WITH US

Secure access to MitoStemX and unlock the full potential of your products !

[BOOK !](#)

Our publications:

- [A novel mitochondrial pyruvate carrier inhibitor drives stem cell-like memory CAR T cell generation and enhances antitumor efficacy, Wenes et al, Molecular Therapy Oncology, 2024](#)
- [The mitochondrial pyruvate carrier regulates memory T cell differentiation and antitumor function, Wenes et al, Cell Metabolism, 2022](#)



Clickable links !

About MPC Therapeutics

MPC Therapeutics, a biotech based in **Geneva**, Switzerland, leverages world-class expertise in **mitochondrial function** (Prof. Jean-Claude Martinou, CSO) and **T-cell metabolism** (Dr. Mathias Wenes, CTO) to develop cutting-edge solutions that enhance cell's **fitness, persistence and performance**.

Our mission is to **empower our partners** to unlock the full potential of their cell therapies by ensuring a consistent production of **efficient, long-lasting, and high-performing** cell therapy products.