


Cell therapy can cure cancer.  
Bring it to life.

Austrian Life Science Day 2023



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## Curing Cancer From Within: The Promise of Cell Therapy

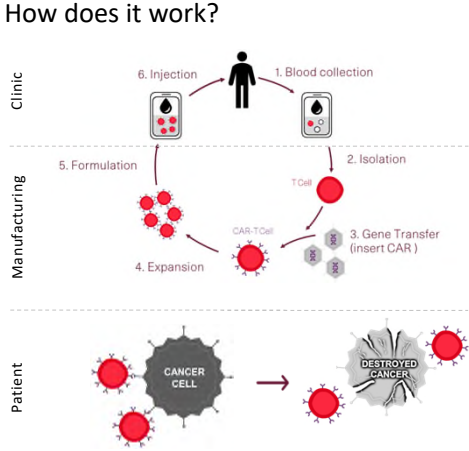
- “Living drugs” with transformative impact on oncology
- spectacular efficacy in blood cancers, with remission rates upward of 90%
- most therapies use patient derived cells as starting materials – 1 batch for 1 patient

# clinical trials CAR-T therapies (CAGR 36%)

2022	1432
2021	1150
2020	865
2019	568

Source: CRI Analytics, June 2022

### How does it work?



The diagram illustrates the CAR-T cell therapy process in three stages:

- Clinic:** 1. Blood collection from the patient; 6. Injection of CAR-T cells back into the patient.
- Manufacturing:** 2. Isolation of T cells; 3. Gene Transfer (insert CAR) to create CAR-T cells; 4. Expansion of CAR-T cells; 5. Formulation of the final product.
- Patient:** The CAR-T cells target and destroy cancer cells, leading to destroyed cancer.

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# Cell Therapy Manufacturing Challenges



## Quality

- High lot to lot variability
- Open, manual process
- Uncontrolled unit operations

## Quantity

- Labour & time intensive
- Long process time (>8 days)
- Manual process documentation

## Cost

- Small unit operations with poor yield
- High cost of goods sold

10% of the batches don't deliver a final product due to manufacturing failure <sup>1</sup>

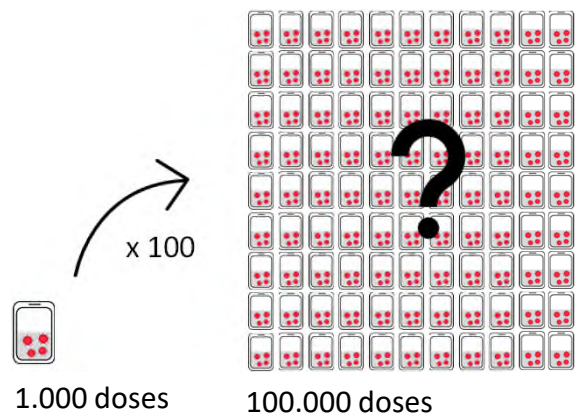
"1.000 doses a year, there is a need for 100 trained employees and 20 cleanroom suits"

Manufacturing costs of > 170.000 \$ per dose <sup>2</sup>

# How to scale manufacturing capacity 100x ?



A typical industrial, manual CAR-T manufacturing setup today (image: Cytiva).



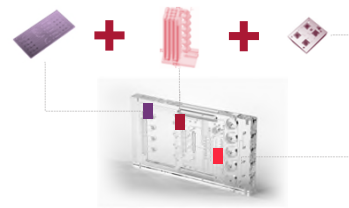
# Sarcura's Approach



Using semiconductor technology to bring processing and real time control to cellular level.



Current status: Individual devices for each step



Functional modules perform unit operations in a closed cartridge

# Team

## Founder



**Daniela Buchmayr, MBA**  
 • Co-Founder & CEO  
 • 14 yrs corporate experience in the Biopharmaceutical Industry in business & market development, innovation management at



**DI Dr. Martin Fischlechner**  
 • Co-Founder, Director Technical Development  
 • 12 yrs academic research in microfluidic design and biological assay development in UK (Cambridge, Southampton) and AUT



**Dr. Erwin Gorjup**  
 • Co-Founder, Director Application Development  
 • Stem cell biologist with 11 yrs experience in research and industrial development at



## Advisory Board



“The company is well positioned to execute on the tremendous potential of their platform and help **realize the promise of cell therapies** by bringing curative treatments to oncology patients and beyond worldwide”

**Nicoletta Loggia, Ph.D.**  
 • CTO @ Orchard Therapeutics  
 • Former Global Head of Cell & Gene Therapy @ Novartis



“Sarcura’s technology holds the potential to finally provide a mean for scientists and developers to identify, get to, and **engineer the right cell**”

**Fabio Fachin, Ph.D.**  
 • Head of Cell Therapy Process Development and Automation @ Takeda  
 • Former VP of Cell Therapy Engineering and Manufacturing @ Torque Therapeutics

... and an amazing team of 18 multidisciplinary, international experts!