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LIVING DRUGS

SAXONIAN PRECISION THERAPY CLUSTER

SaxoCell 2025

Cutting-Edge Cell and Gene Therapy from Saxony









Cell and Gene Therapies

The Future of treatment for genetic and aggressive tumor diseases





What are gene and cell therapies?

A brief overview





Technological principles

- Use of immune cells (T cells, NK cells, macrophages) and stem cells
- Use of modern gene editing technologies
- Molecular modification & reprogramming for:
 - Correction of genetic defects
 - Enhancement of the immune response
 - Replacement of damaged tissue

Advantages & potential

- Highly **personalized & effective** therapies
- New hope for patients with serious diseases
- **Pioneering alternative** to conventional treatments



→ Goal: Develop and optimize safe, effective, and cost-efficient gene and cell therapies

- Focus on "living drugs" to revolutionize treatments
- Strong network of local partners from academia, healthcare, and industry
- Positioning Saxony as a leading hub for gene and cell therapy



Core parters of the cluster

- 2 Universities (TUD, ULEI)
- **1 Research Institute** (Fh IZI)
- **3 Hospitals** (Chemnitz, UKL, UKD)
- 23 Industrial partners





- Winner of the BMBF's Clusters4Future initiative
- Selected nationwide from **137 competitors**
 - 3 potential funding phases (3 years each)
 - Currently 2nd funding phase started
- Long-term sustainability initiated through SaxoCell e.V.





The future clusters of the 1st competition round



SaxoCell – achieving more together

The R&D projects



T cells	UNI-KT	Universal, off-the-shelf CAR-T cell therapies for cancer, inflammatory & autoimmune diseases; using AI and adapter molecules to improve treatment precision, effectiveness, and safety	
	SafeTy	Making CAR-T and stem cell therapies safer by preventing severe immune reactions (GvHD and CRS) through innovative biotechnological approaches, including new treatment strategies like extracorporeal immunomodulation	
	SB-TRACT	Automated production of Sleeping Beauty transposon-modified T cells for treating solid tumors; efficient and accessible T-cell therapies	
NK cells	NK-Alliance	Advancing natural killer (NK) cell therapies for cancer & autoimmune diseases by improving genetic modifications, production processes, and clinical translation	
Stem cell derived	AlloMac	Developing an affordable, off-the-shelf macrophage therapy for solid tumors, using genetically modified immune cells to destroy cancer cells effectively	
	Edit-Save	Creating safe, virus-free genome editing techniques to treat blood, autoimmune & cancer diseases, using advanced gene- editing tools like recombinase and transposon systems	
	MSC-READY	Scaling up the production of MSC-based cell therapies (e.g., Desacell®) for serious diseases, ensuring cost-efficient manufacturing and global clinical application	

SaxoCell – achieving more together

SaxoCellutions as the innovation interface



SASOCELLUTIONS - SaxoCell provides solutions

The infrastructure project in the cluster



SaxoCell successes

The current achievements from the cluster



Scientific	Breakthrough



First successful antibody production at Fraunhofer IZI (S1 GMP facility) in 2024

Bundesministeriun für Bildung und Forschung



Further development of the Designer recombinase technology

Clinical Studies

ROR2 CAR-T - Fh IZI & UK Würzburg Clinical study with ROR2-specific CAR-T cells in patients with ROR2+ tumors UC-CISSII – TU Dresden & Canadian centers

MSCs from the umbilical cord as cellular immunotherapy for septic shock

Patents 17 new

17 new patent applications

6x macrophages, 5x genome editing, 2x NK cells, 1x T cells, 3 others

Additional Funding



xMac / AlloMac – **1mio€** UltraCART / SB-TRACT – **9mio€**

SaxoCell Forums





Networking of politics & healthcare

Presentation of Saxon business ideas to investors

Spin-offs & Settlements





2 Settlements



The faces of SaxoCell

Saxocell speakers & the consortium





The SaxoCell speakers from left to right: Ulrike Köhl (Director of both Fraunhofer IZI & Institute for Clinical Immunology, Leipzig University), Frank Buchholz (UCC Medical Systems Biology, TUD), Martin Bornhäuser (Medical Clinic I, Carl Gustav Carus University Hospital Dresden & NCT & UCC Dresden) **The SaxoCell consortium** at our Kick-off Meeting for the 2nd Funding phase in January 2025 at Fraunhofer IZI



Get in touch with us!

SaxoCell contacts, info and socials



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Industry Flyer

Socials











