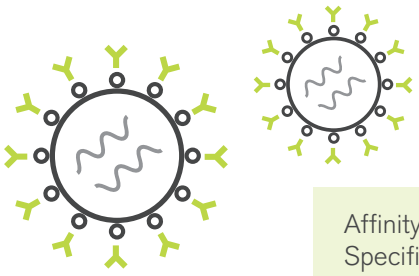
SIRION BIOTECH

Lenti**Therapy**™

Cell specific & Non toxic transduction technology

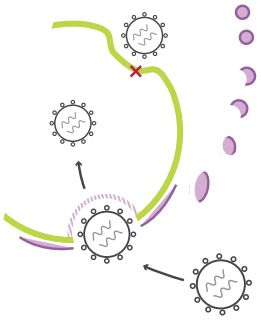
LentiTherapy is designed to enable **cell type specific** transduction and **improve** standard **transduction efficiencies**. This system is a great candidate for clinical research applications because of its **universal applicability and non-toxic chemistry.** Proven effective in CD30 and EGFR positive cell types.

The Lenti**Therapy**™ 3 hit strategy
To target therapeutically relevant cell types



Affinity and Specificity

Retargeting antibody fragments on the virus envelope. These fragments have a high affinity and specificity to peripheral proteins of cell surfaces, allowing targeted precision of viral transduction.



Permeability

Lenti**BOOST**™ increases the **permeability of cell membranes**, allowing lentiviruses easy access. The chemical basis for Lenti**BOOST**™ is **non-toxic** and is used as a standard component in pharmaceutical pill formulation.

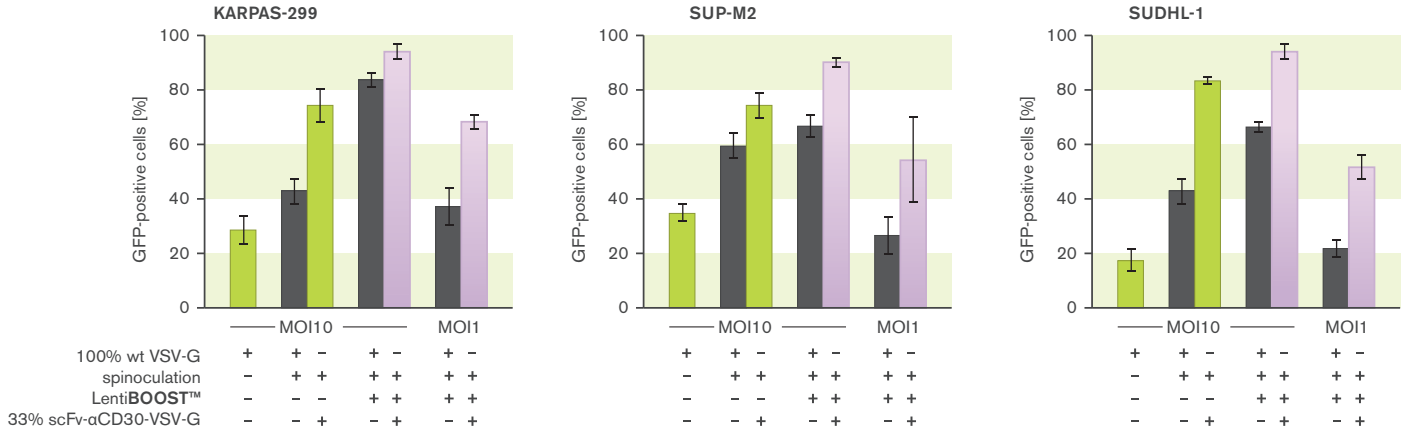
Spinoculation

Spinoculation increases the number of virus particles binding to the cells through centrifugal inoculation, enhancing the effectiveness of Lenti**BOOST**™ and the retargeted envelope even further.

Application

Due to its non-toxicity, the process is well suited for basic research as well as early clinical applications. Using Lenti**Therapy**™, sufficient genetic modification can be achieved at low MOIs (less or equal to 1).

LentiTherapy™
Optimized cell transduction



The figures show transduction experiments in KARPAS-299, SUP-M2 and SUDHL-1 cell lines incubated at MOI 10 or 1 with copGFP-coding lentiviral particles +/- a spinoculation protocol, Lenti**BOOST**™ and retargeted scFv-CD30 VSV-G lentivirus.

Lenti**Therapy**™ is effective independent of cell type. The steps of this system influence each other synergistically, as demonstrated in the figure above. The treatment is effective at different MOIs and ideal for treating otherwise hard to transduce, therapeutically relevant cell types.

Chances for Collaboration

SIRION Biotech is searching for collaboration partners to actively develop the application of the Lenti**Therapy**™ System in pre-clinical and early clinical stages.

Want to know more?

Specific info material to each specific step can be found at

www.sirion-biotech.com

Publications

Höfig et al., *poloxamer synperonic F108 improves cellular transduction with lentiviral vectors*. J. Gene Med. 14:549-60 (2012)

Höfig et al., *Systematic improvement of lentivirus transduction protocols by antibody fragments fused to VSV-G as envelope glycoprotein*. J. Biomaterials (2014)

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