



OUR MISSION

At **RNAlead**, our mission is to provide our partners with a **unique proprietary** RNA delivery technology, called FlashRNA®, that is **efficient, safe and proven**.

We support our clients, big pharmas, biotechs or academic research teams, throughout their innovation journey, from early-stage research to clinical applications, with a **versatile** solution designed to meet the evolving demands of **modern gene and cell therapies**.

We are continuously optimizing our platform to enable **targeted delivery to specific cell types *in vivo***, expanding its therapeutic potential and real-world impact.



OUR TECHNOLOGY

PROPRIETARY
(3 fully own patents)

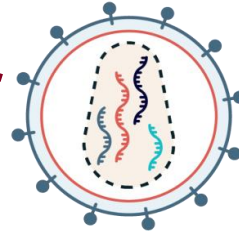


DISRUPTIVE

(an alternative to existing RNA transfer solutions)



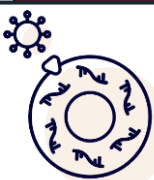
FlashRNA®



*“Pioneering RNA Delivery for Human
and
Veterinary Therapeutics”*

PROVEN

(10 years of *in vitro* & *in vivo* validation)



CLINIC READY

(FIH as drug product in 2025)





OUR PATENTS PORTFOLIO

3 fully owned patents by RNAlead

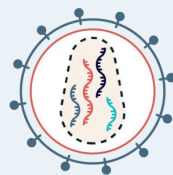
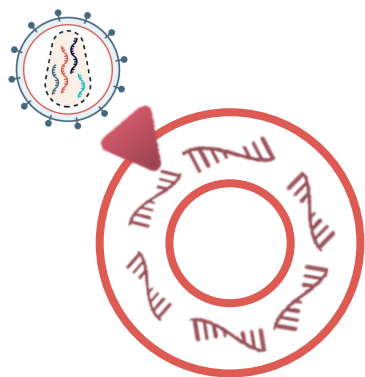
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FLASHRNA®

FOUNDATION PLATFORM

2016

Retroviral particle comprising at least two encapsulated non-viral RNAs



2

GENOME EDITING SPECIALIZED PLATFORM

2017

Particle for the encapsidation of a genome engineering system



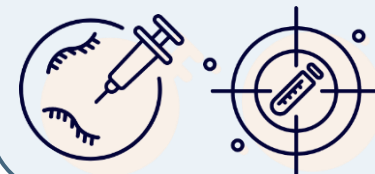
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IMMUNO- THERAPY

SPECIALIZED PLATFORM

2017

Viral particle for RNA transfer, especially into cells involved in immune response





OUR PROJECT

RNAlead was founded with the mission of **commercializing licenses** for our proprietary technology - **FlashRNA®**.

As a proven and disruptive alternative to traditional delivery systems such as LNPs (lipid nanoparticles), our technology has established itself as a more powerful, more accessible solution.

Our main asset is the **versatility of our RNA transfer platform**, which opens the way to a multitude of therapeutic applications (see below).

This adaptability gives **RNAlead** a leading competitive edge in the **biotherapy market**.



Gene therapy

Fast and transient expression of one or several protein(s) of interest in one shot. First in Human trial in 2025 (treatment of secondary lymphedema through the simultaneous expression of two factors).



Genome edition

All-in-One system for a transient expression of the CRISPR-Cas9 system : very low off target risk. Proven efficiency for base editing approaches as well.



Cell reprogramming

Gentle for sensitive cells, but efficient in the delivery of up to four reprogramming factors at once. Proven efficiency in iPSC.



Vaccination

Fast protein expression with no adverse immune responses. 500 times more powerful than LNP for Covid vaccination with an equivalent RNA dose.



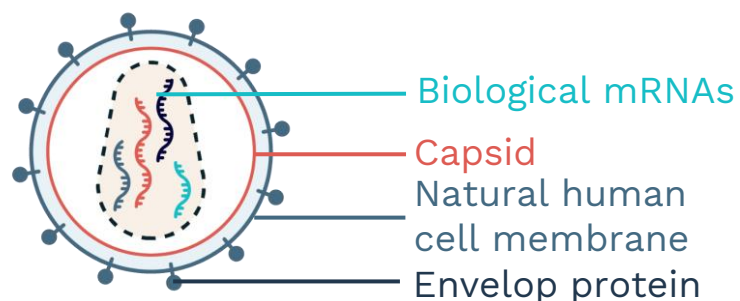
Immunotherapy

Low immunogenicity. Multiple (up to 4) and large (up to 10 kb) RNA delivery allowing concomitant delivery of antigens, immuno modulatory molecules and more...



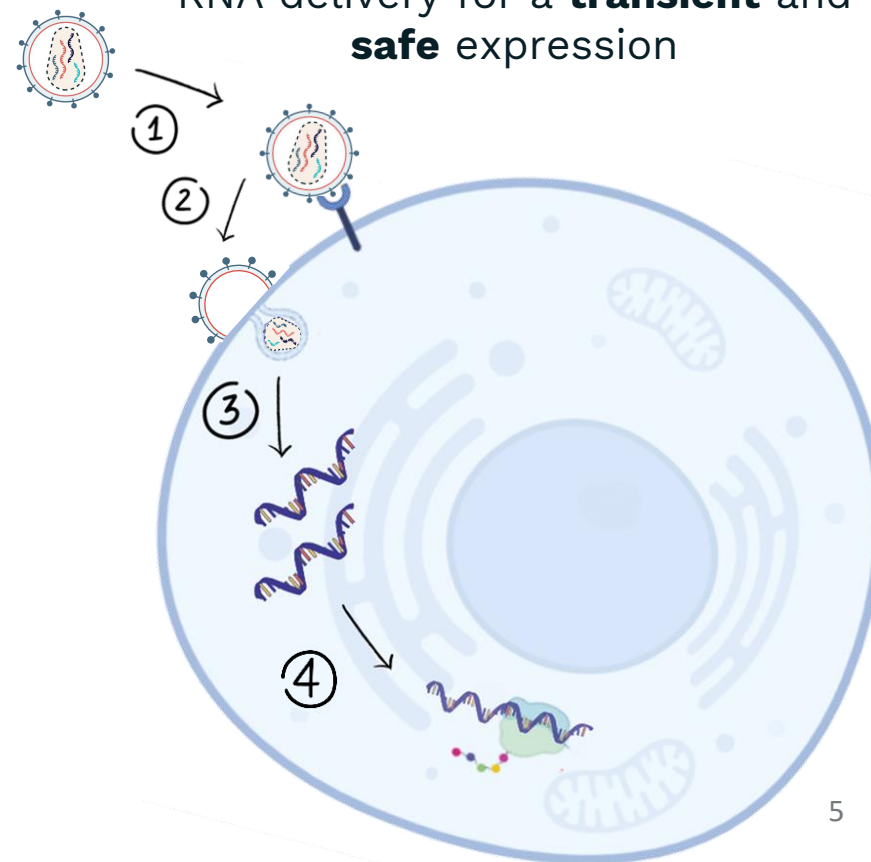
FLASHRNA® : SIMILAR TO ILV IN APPEARANCE BUT DEEPLY DIFFERENT

A chimeric particle developed by combining the most effective features of iLV and bacteriophage



- ♦ **Multiple & different** RNA delivery
- ♦ **Short-term & transient** expression
- ♦ **Low** immunogenicity
- ♦ **High** transfer efficiency
- ♦ **No** genome insertion / **No GMO** generated

RNA delivery for a **transient** and **safe** expression





FLASHRNA® : ID CARD

- ▶ Broad tropism
- ▶ Very stable particle
- ▶ High efficiency
- ▶ No Toxicity
- ▶ >10 RNA / 4 distinct RNAs
- ▶ >10 Kb total Payload
- ▶ No genome Integration
- ▶ Fast & transient expression
- ▶ No adverse Immune Response
- ▶ Scalable & Biological



FlashRNA® is a safe, versatile and efficient cell transfer system for RNA delivery





FLASHRNA® *EX VIVO*

		INDUCED PLURIPOTENT STEM CELLS	HEMATOPOIETIC STEM CELLS	MESENCHYMAL STEM CELLS	B LYMPHOCYTES	DENDRITIC CELLS	T LYMPHOCYTES (ALL)	T LYMPHOCYTES (CD4)	NATURAL KILLER	PANCREAS	MACROPHAGE MONOCYTES	KERATINOCYTE	FIBROBLAST	COLON	UTERUS	KIDNEY	PROSTATE	NEURONE	LIVER
PRIMARY CELLS	HUMAN CELLS	Tested	Tested	Tested	Tested	Tested	Tested	Tested	Tested	Not yet tested	Tested	Not yet tested	Tested	Not yet tested	Not yet tested	Not yet tested	Not yet tested	Not yet tested	Tested
	MURINE CELLS	Not yet tested	Tested	Not yet tested	Not yet tested	Tested	Tested	Tested	Not yet tested	Not yet tested	Tested	Not yet tested	Not yet tested	Not yet tested	Not yet tested	Not yet tested	Not yet tested	Not yet tested	Not yet tested
CELL LINES	HUMAN CELLS	Not yet tested	Not yet tested	Not yet tested	Tested	Tested	Tested	Tested	Tested	Tested	Tested	Tested	Not yet tested	Tested	Tested	Tested	Tested	Not yet tested	Not yet tested
	MURINE CELLS	Not yet tested	Not yet tested	Not yet tested	Not yet tested	Not yet tested	Tested	Tested	Not yet tested	Tested	Not yet tested	Not yet tested	Tested	Not yet tested	Not yet tested	Not yet tested	Not yet tested	Tested	Not yet tested

- ▶ FlashRNA® has additionally undergone testing on primate kidney cell line
- ▶ The liver evaluation utilized a perfusion model involving human liver explants, representing an innovative approach at the forefront of *in vivo* experimentation.



Not yet tested



Tested



FLASHRNA® *IN VIVO*

Animal studies

18 successfully
(+2 *planed*)

Injection routes

11 successfully

Multiple injections

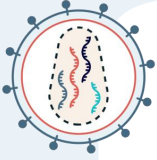
Up to 3

Animal tested

Rodents
Zebra Fish
Rabbits



- (1) Vaccin.: Vaccination
- (2) Reg. Med.: Regenerative Medicine
- (3) Cel. Repro.: Cell Reprogramming
- (4) Imm Ther: Immune Therapy



FLASHHRNA® IN THE FUTURE

Ensure broad therapeutic access to FlashRNA®



1

CELL SPECIFIC TARGETING : Precision-FlashRNA® for direct *in vivo* use



2

STABLE PACKAGING CELL LINES : Lower cogs by removing 1 plasmid



3

A VERSATILE PRODUCTION PROCESS : Technology transfer options available in adherent or suspension format



4

THERMOSTABILITY : Optimized formulation buffer for storage at higher temperatures





FLASHRNA® IN THE PRESS

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Our final message to you:

Don't let your project drown in the mass, let your project thrive in the hands of experts who care.

Do you have any questions?

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Thanks