



Pécsi Tudományegyetem
University of Pécs

Self-Assembling Modular Membrane Coating

Platform, not product.

The same mRNA manufacturing platform can be rapidly reprogrammed to target new pathogens, cancer antigens, or genetic diseases, enabling faster development, scalable production, and accelerated market access.

The Challenge

Despite major advances in mRNA technology, many vaccines and cancer immunotherapies still suffer from suboptimal antigen presentation. Pathogens and cancer cells frequently evade immune surveillance because key antigens remain poorly visible to the immune system.

This limitation is particularly critical for short neoantigens and personalized cancer vaccines, where immune responses are often insufficient to generate meaningful therapeutic benefit.

The Solution

TFR123 transforms immune recognition by creating a self-assembling antigen-display platform that dramatically improves antigen presentation and cross-presentation in antigen-presenting cells. The technology makes weakly immunogenic targets visible to the immune system, enabling stronger CD8+ T-cell responses against pathogens and tumor-specific neoantigens. The platform is designed to work seamlessly with modern mRNA-LNP technologies while overcoming key limitations of existing vaccine platforms.

INVESTMENT HOOK

TFR123 is a platform technology that unlocks the full potential of mRNA medicines by transforming poorly recognized antigens into powerful immune targets, enabling stronger therapeutic responses across oncology, infectious diseases, and next-generation precision medicine.

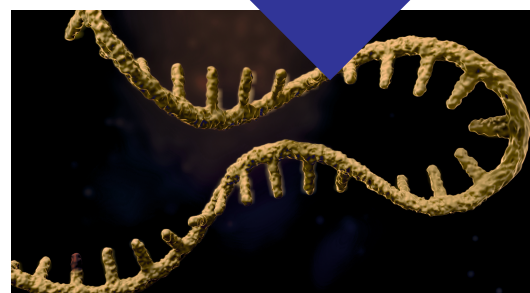
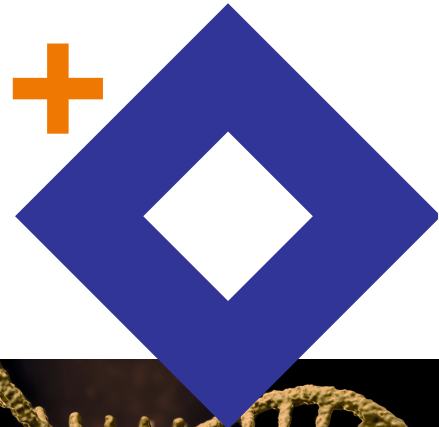
Join us in transforming immune recognition and unlocking the next generation of mRNA-enabled precision medicines.

WHAT ARE WE LOOKING FOR?

We are seeking strategic partners and investors to advance the TFR123 platform into clinical development and unlock its potential across mRNA vaccines, cancer immunotherapy, and next-generation targeted therapeutics.

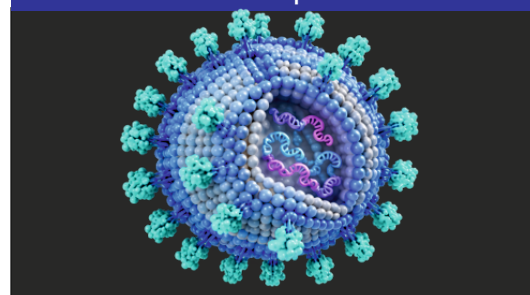


Balazs CZIBOK
+36 30 925 5619
czibok.balazs@pte.hu



mRNA technology enables the rapid development

The 3D model of the TFR123 platform



TRL 3
TECHNOLOGY
READINESS

\$100B global
vaccine market

PATENT PENDING

TFR123 combines platform scalability with patent-protected innovation, creating defensible value across multiple high-growth therapeutic markets.

KEY VALUE PROPOSITION

Enhanced Antigen Presentation
Stronger CD8+ T-Cell Activation
Unlocks Low-Immunogenic Targets
mRNA-Compatible Platform
Modular Antigen Design
Cancer & Infectious Disease Applications
Targeted Drug Delivery Capability
Patent-Protected Technology
Licensing-Driven Business Model
Scalable Platform Across Multiple Indications
An active spin-off company is developing the technology

www.innovcio.pten.hu/en