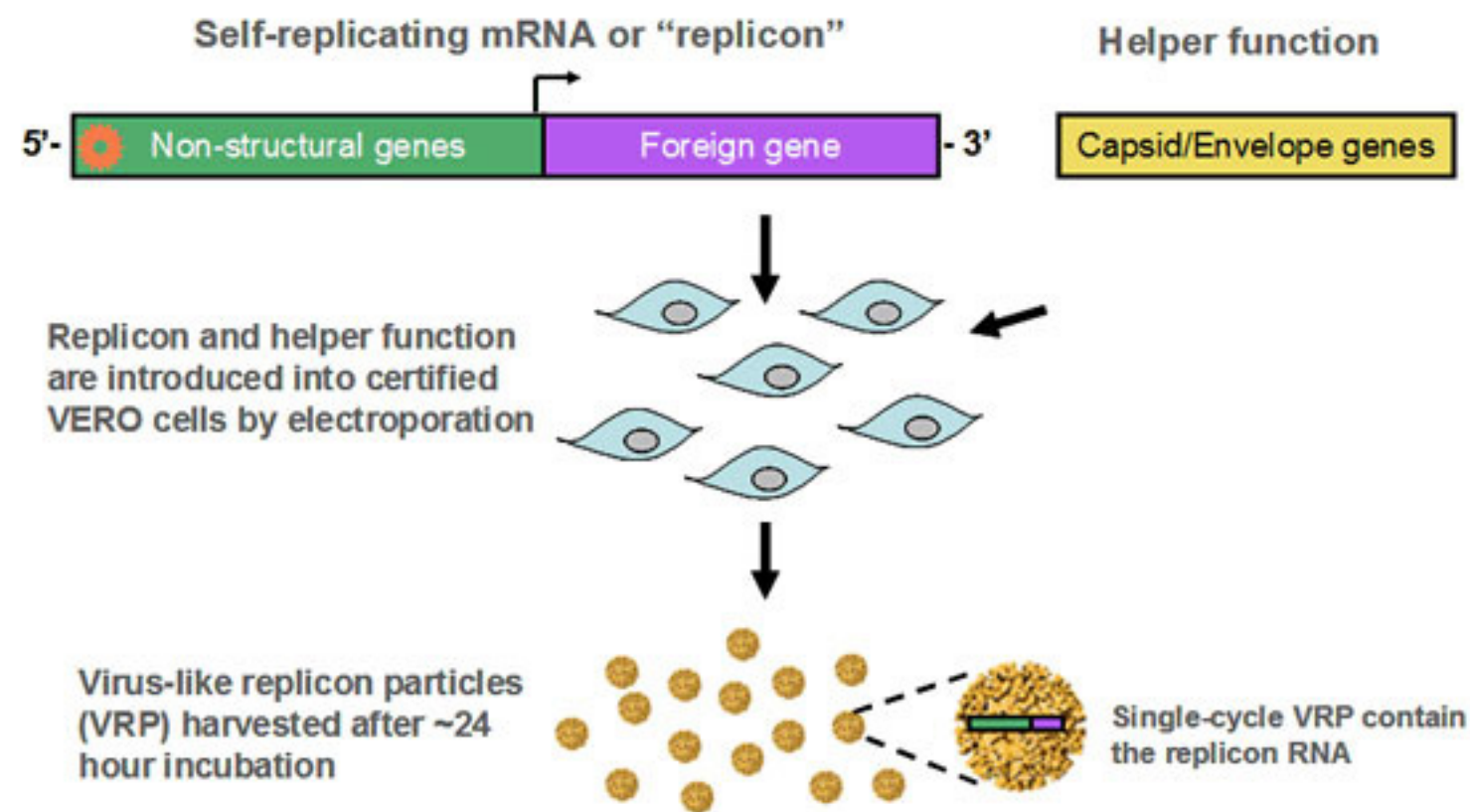




The Alphavaccine Platform System

The Alphavaccine Platform System constitutes a major advance in vaccine technology and presents an opportunity to immunize against or treat new diseases as well as significantly improve existing vaccines. Read more about [alphavaccine applications](#).

This system is genetically derived from a modified alphavirus. Using molecular biology and genetics, we re-engineer the virus, substituting a gene from an infectious disease or cancerous cell for a portion of the original viral genome. The re-engineered alphavaccine particles express the substituted gene (or genes) rather than producing more virus particles, transforming the original virus into a highly effective vaccine system.



For a more detailed explanation of how alphavaccine particles are produced, [view the Alphavaccine Tour](#).

What Are the Advantages of Using alphavaccines?

The alphavaccine system has distinct advantages as a platform technology for vaccines. It is an ideal core technology because it:

- Is safe and highly immunogenic in humans
- Induces broad and robust humoral and cellular immune responses
- Is a platform technology that can be used repeatedly to protect against multiple diseases
- Is capable of expressing a wide array of bacterial, viral, parasitic, and tumor antigens
- Naturally targets dendritic cells, the most efficient antigen presenting cell in the body
- Has the ability to express high levels of the target antigen(s)
- Allows combination products to be produced through multi-gene or particle mixtures
- Offers a single expression cycle for an excellent safety profile
- Is scalable and will support economical production processes
- Is capable of breaking tolerance to self antigens, critical for cancer immunotherapy

The alphavaccine system is the only vaccine vector system that has the potential to deliver all of these highly desirable vaccine technology attributes.

Alphavaccines have shown excellent protection in numerous models for infectious disease and cancer, including influenza, CMV, breast cancer, melanoma, SARS, HPV, HSV, RSV, PIV, Marburg and Ebola viruses, viral encephalitis viruses, and botulinum toxin. Protection has been demonstrated in over half a dozen species ranging from mice to non-human primates.

TECHNOLOGY

TECHNOLOGY OVERVIEW

THE ALPHAVACCINE PLATFORM SYSTEM

ALPHAVACCINE APPLICATIONS

ALPHAVACCINE TOUR

INTELLECTUAL PROPERTY

SCIENTIFIC REFERENCES