

Technology Offer

CSIC/RR/004

## First attenuated virus based vaccine against Rift Valley Fever



**Live attenuated vaccine incorporating a variant of the Rift Valley Fever virus obtained in the laboratory by serial passages in the presence of a mutagenic agent, that could be the basis of a new vaccine strain with safety parameters not previously described.**

### Intellectual Property

Patent granted in Spain and filed in several countries

### Stage of development

Technology ready for testing

### Intended Collaboration

Licensing and/or co-development

### Contact

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### Market need

The Rift Valley Fever is an emerging zoonotic viral disease with significant economic impact on animal health (that can also affect humans).

There is not a treatment or vaccine on the market. Development of a vaccine could be used to develop safe and effective control strategies, both for animal and human use.



### CSIC solution

It's been characterized a variant of the RVF virus obtained in the laboratory by serial passages in the presence of a mutagenic agent, favipiravir. This variant, called 40F-p8, was highly attenuated in immunodeficient mice extremely sensitive to viral infections, without altering its ability to induce a protective immune response in immunocompetent mice.

Furthermore, it's been identified a number of specific mutations throughout the viral genome that can be potential virulence determinants.

### Competitive advantages

- Live attenuated vaccines induce long-lasting and broadly protective immunity after a single dose administration in both animals and humans.
- This variant could be an excellent basis for developing a successful immunization program in affected countries or for implementing preventive control measures in countries with a higher risk of introducing or spreading the disease.