

Research Priorities on the Andes Hantavirus

1 June 2026

Background

On 7 May 2026, the ANRS MIE activated a Level 1 Emergency Response Unit in response to the identification of a hantavirus outbreak on board the cruise ship MV Hondius, travelling from Argentina to Cape Verde. This activation led, in particular, to the drafting of a fact sheet and research note on the Andes virus (ANDV), a summary of its transmission in South America, and a review of vaccines, vaccine candidates, and anti-ANDV immunotherapies.

Following a consultation meeting with the scientific community on 11 May 2026, the ANRS MIE explored various lines of research and identified eight priority actions in light of the current epidemiological situation and the identified risks. The selected areas cover the natural history of the disease, biological diagnosis, the development of innovative therapies and vaccines, and the infodemic in a context of scientific uncertainty. Based on the selected priorities, a timetable has been drawn up, distinguishing between actions to be implemented in the short, medium and long term. The aim of the long-term actions is the development of programmes with high strategic potential at national level, which can be mobilised in the event of any outbreak.

Research Priorities Identified

Short-term Priorities

1. Establish epidemiological case and contact cohorts integrated with international WHO and European initiatives (Be-Ready): frequency of asymptomatic or mildly symptomatic cases, actual level of transmissibility (effective R) and the impact of containment measures, viral persistence in bodily fluids and infectiousness, disease severity (predictive factors and pathophysiological mechanisms), long-term sequelae, and the psychosocial consequences of containment measures.
2. Investigate various targeted therapeutic strategies (monotherapy or antiviral combinations, combination with immunotherapy or vaccination) for pre-emptive treatment, early curative treatment, and post-exposure prophylaxis (molecules with a long half-life).

Medium and Long-term Priorities

3. Develop rapid, ANDV-specific diagnostic tests accessible at the point of care (rapid identification of cases and management of clusters).
4. Develop neutralising monoclonal antibodies that can be used in combination therapies.
5. Develop specific inhibitors of viral replication and fusion, as well as host-targeting therapeutic approaches.
6. Develop relevant preclinical models to better understand the pathophysiology of infection and evaluate therapies and vaccines under development.
7. Develop vaccines that induce cross-reactive and long-lasting immunity against hantaviruses.
8. Establish an infodemic surveillance system based on a One Health approach to analyse processes of disinformation and their spread, with a view to working with the media and health authorities to jointly develop strategies for anticipating and preventing these phenomena (prebunking).