



Preclinical Studies and Research

Testing and validating your biomedical products

Top level veterinary and biomedical research for animal and public health

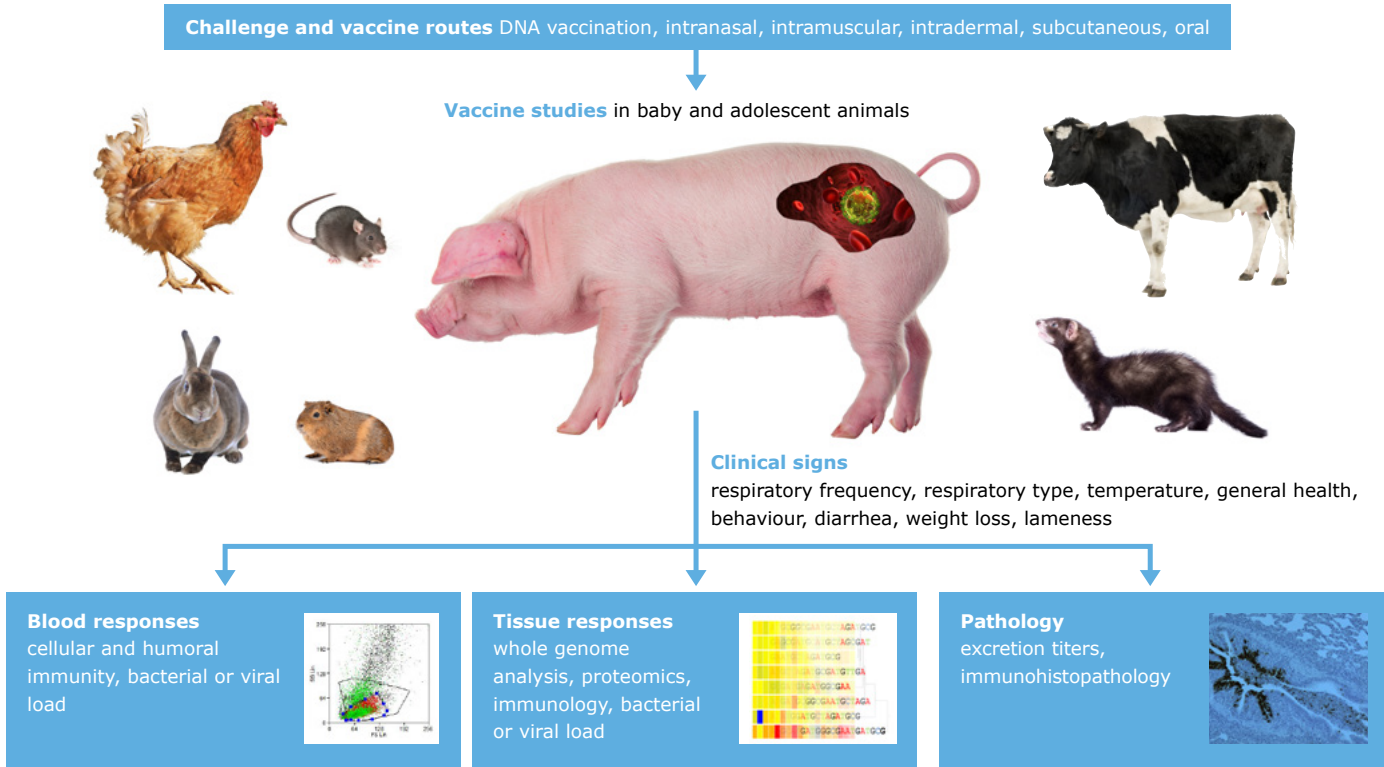


WAGENINGEN
UNIVERSITY & RESEARCH

Contract Research

Wageningen Bioveterinary Research is a contract research organisation with excellent facilities for research and preclinical studies. The institute develops vaccines, intervention tools and diagnostics for pathogenic agents. State-of-the-art customised studies are offered like bio-informatics, experimental animal models (including measurements of both host and pathogen responses), epidemio-

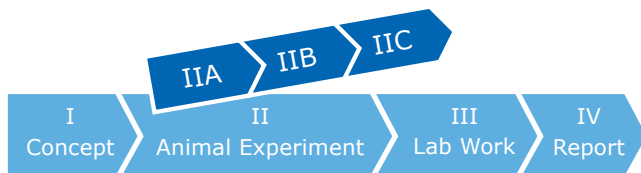
logical and risk assessment studies. We have biosafety facilities for research with highly contagious pathogens in animals like pigs and cattle up to biosafety level 3. Customised services include efficacy testing of vaccines according to customer's needs and extraneous agents testing for the presence of various viruses and bacteria, e.g. in fertilised eggs. All tests are performed according to the European Pharmacopoeia and GMP guidelines.



Examples of our animal models

Human Respiratory Syncytial Virus

Human Respiratory Syncytial Virus (HRSV) is an important cause of respiratory tract disease in infants. However, the options to prevent or treat severe HRSV infections are limited. An animal model could therefore be most helpful in the development and selection of intervention strategies.



The bovine RSV challenge model, where a classical BRSV respiratory infection can be studied, is used for efficacy evaluation of antivirals and vaccines. Parameters of vaccine efficacy include: daily clinical scoring, body temperature, viral excretion, and post-mortem examination. Pathological changes in lungs are recorded macroscopically and histologically and virus isolation is performed.

Feed Intervention studies

The colonisation and development of the gut is affected by environmental factors, such as the use of antibiotics, probiotics, prebiotics or diet composition. To address the impact of such factors we performed experiments with pigs and chickens. Using 16S ribosomal RNA sequencing and genome-wide host transcriptomics, we showed that the interplay between microbiota and host during early life is important for immunological development. This finding was later corroborated by immunohistopathology.

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