



Pre-clinical evaluation of vaccines

Vaccine Generations

First generation:

Live/attenuated (inactivated) or heat killed pathogen

Second generation:

Protein subunit, toxoid or conjugate.

Third generation:

DNA/RNA or recombinant vectors.



Effective and successful rodent models and study set-ups are essential to ensure optimal selection of promising drugs against infectious disease.

At Scantox, we specialise in pre-clinical evaluation of vaccines. We have experience working with first, second and third generation vaccines in all rodent species, as well as ferrets, rabbits and mini-pigs. Administration can be performed according to standard (e.g. intramuscular or intradermal), mucosal (e.g. nasal or oral) or other routes.

Immunogenicity

As a first step, we evaluate whether the candidate vaccine induces an appropriate immunological response, by measuring the humoral antibody response (ELISA) and the cell-mediated T-cell response (ELISpot).

Effect

At Scantox, we can evaluate the efficacy of vaccines against viral or bacterial pathogens up to Biosafety Level 3. We have established models (SARS-CoV-2), but routinely set up novel infection models.

Regulatory Toxicology

When PoC studies have been completed, Scantox can conduct regulatory toxicological to evaluate vaccine safety according to the WHO Technical Report Series No. 927, Annex 1.

Our state-of-the-art facilities allow evaluation of vaccines classified as GMM/GMO and/or as Biosafety Level 2, and execution of studies according to Good Laboratory Practice (GLP).

