Transboundary animal diseases present complex problems with multiple facets that require specific fit-for-purpose detection, control, and eradication strategies.

These strategies typically include surveillance, biosecurity, and the use of countermeasures to contain a disease outbreak. Vaccines represent the single most cost-effective countermeasure to respond to and mitigate disease outbreaks. Their effective use in disease control programs is paramount to global food security and the safe production of livestock, poultry, and the rapidly expanding aquaculture sectors. Moreover, the threat of emerging zoonotic diseases has renewed interest in the use of animal vaccines as an integral component of sustainable animal production.

But are available vaccines up to the challenge? Have tangible advancements been made in the field of veterinary vaccinology? Are there new technologies driving the discovery of new vaccines that will fundamentally change the way we approach the stockpile of veterinary vaccines, prepare for disease outbreaks, and implement disease control programs?

This presentation will outline some of the new technologies in the research pipeline, and provide specific examples of new vaccines under development for some important diseases that threaten animal agriculture and the livelihood of people worldwide.