



 DISCONTTOOLS

Global Foot-and-Mouth Disease (FMD)
Research Alliance



Identifying Research Gaps

<https://www.ars.usda.gov/gfra/>



Themes we will cover

- Vaccine efficacy
- Understanding of virus movement/ transmission
- Immunology and pathology
- Surveillance and diagnostics
- Socio-economic factors

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Vaccine efficacy

- Need for in vitro potency testing/ improved in vitro vaccine matching
- Correlates of protection
- Vaccine efficacy vs effectiveness in the field
- Better adjuvants and novel vaccines

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Understanding of virus movement/ transmission

- Animal and human movements
- Scales village to regional trade networks
- Identifying changes in trade networks and production systems
- Role of buffalo (river and swamp) in transmission
- Carrier animals

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Immunology and pathology

- Increased understanding of early protection and innate immune response in different host species
- Understanding the immune response in pigs and correlates of protection
- Pathology?

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Surveillance and diagnostics

- More consistent sample/ sequence submission and accessibility
- Need for pool-specific appropriate diagnostic tests and reagents
- Systematic way to select appropriate vaccine strains per pool
 - Do we really need new vaccines all the time

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Socio-economic factors

- More socio-economic studies in different places
- Understanding how changes in socio-economic conditions influence transmission dynamics
- How to foster genuine buy in from producers for disease management/ control
- How to improve producer biosecurity and husbandry

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General Comments

- Research should be driven with a focus on what is needed for control.

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