
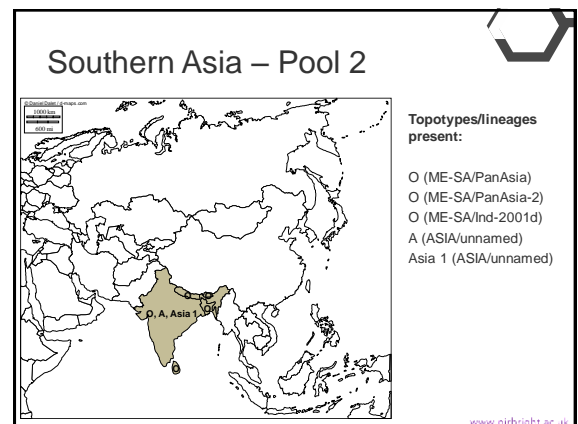
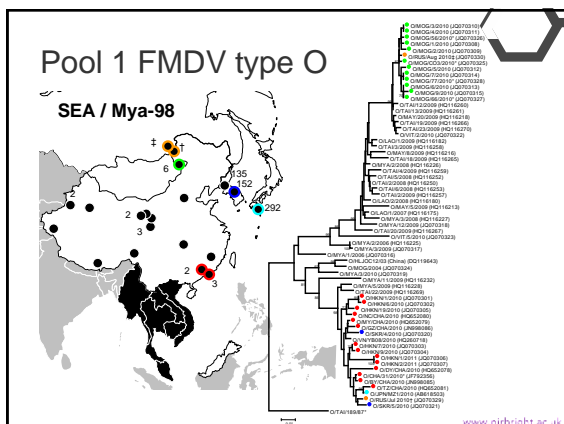
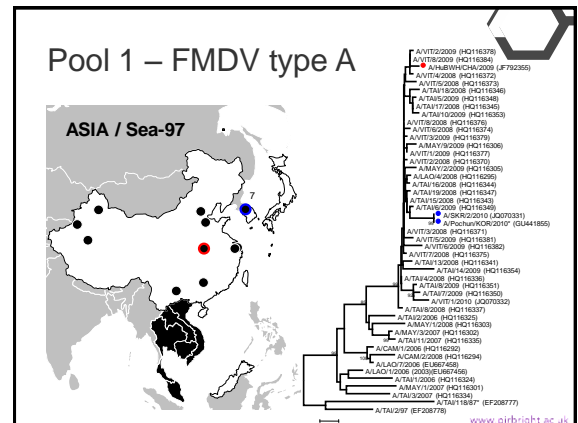
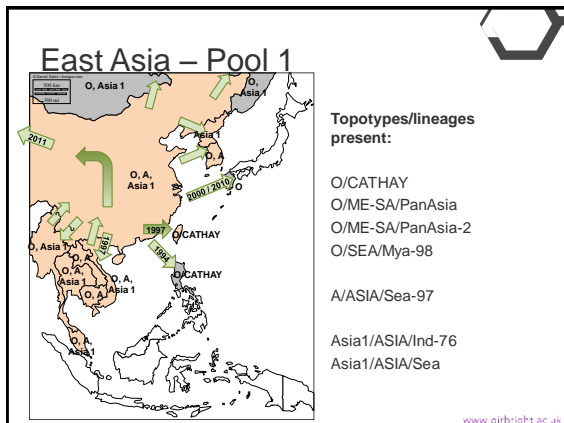
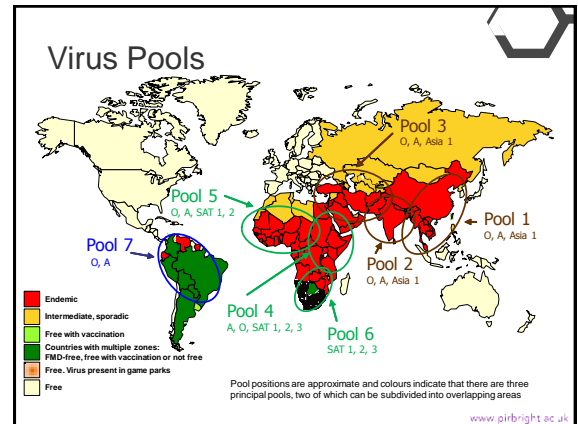


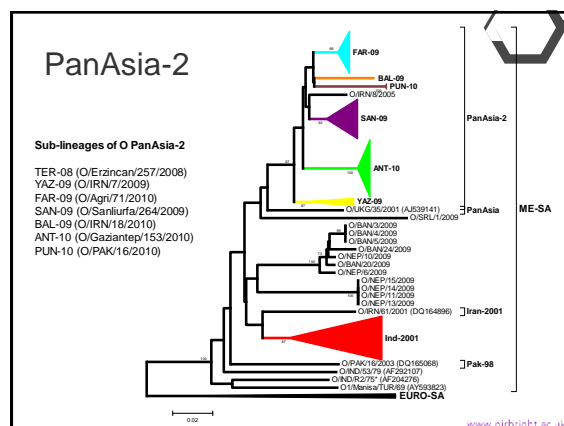
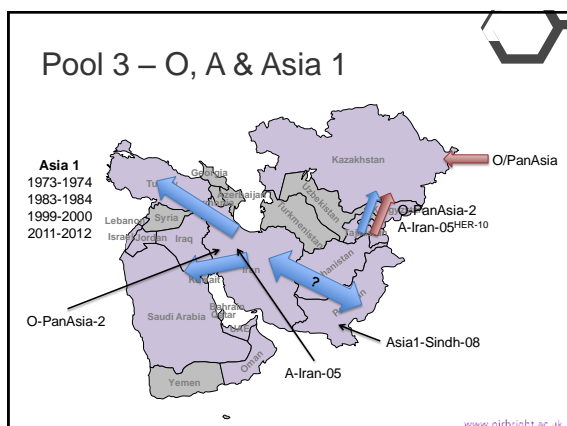
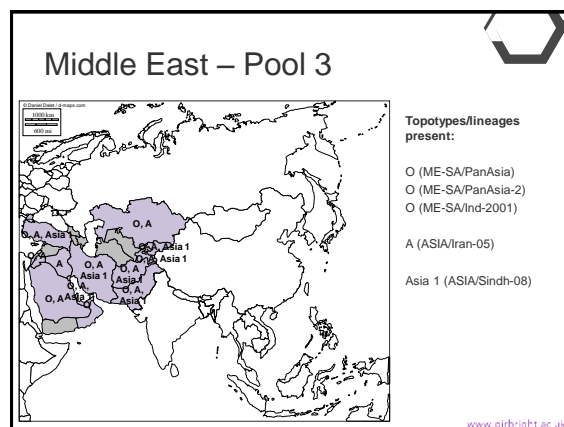
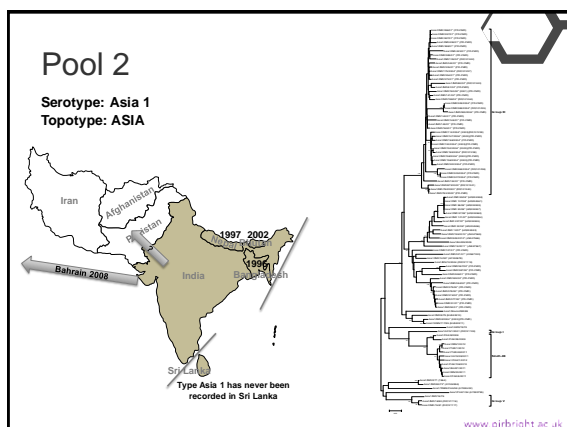
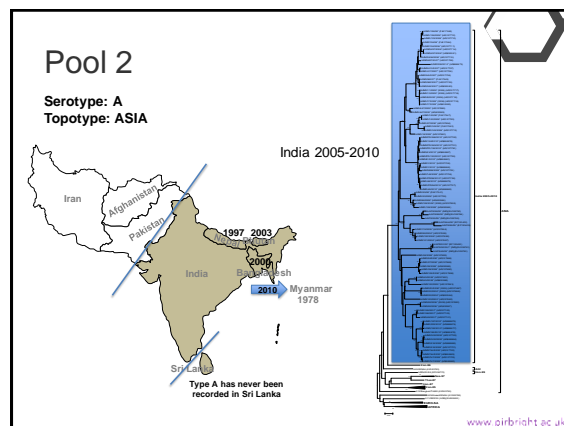
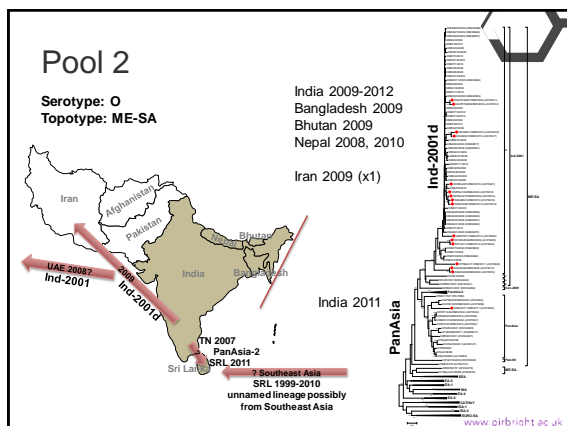
**Local Differences in Circulation:
What Have We Learnt from Patterns
of FMD Persistence and Spread?**

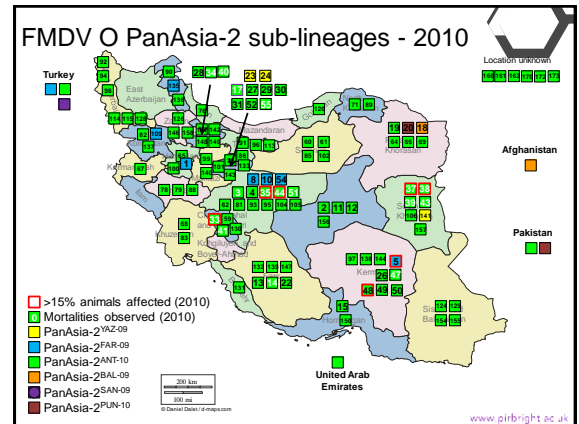
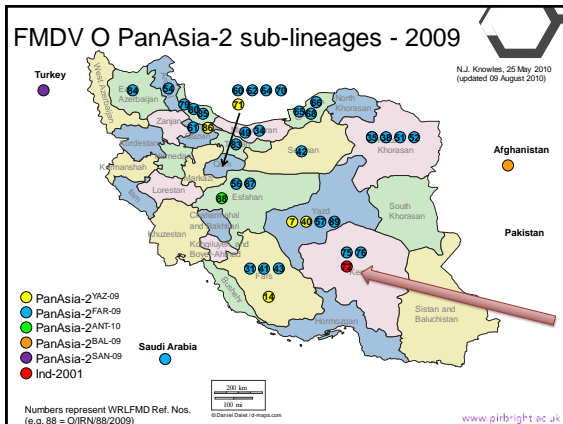
Nick J. Knowles

Molecular Characterisation & Diagnostics Group

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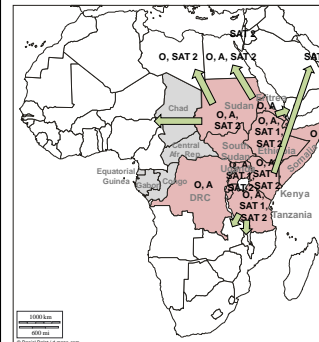


Virus Pools – Africa

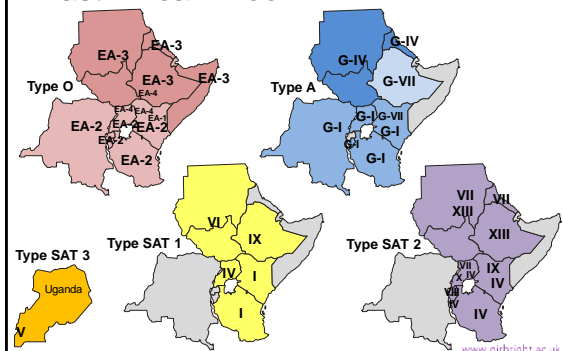
In Africa there are currently three FMD virus pools loosely defined as covering East Africa (Pool 4), West Africa (Pool 5) and Southern Africa (Pool 6). There is some overlap between Pools 4 and 5. It has been suggested to extend pool 4 southwards to include Tanzania and to contract Pool 6 to exclude that country. Thus Pool 6 contains only the SAT serotypes.

- In the countries of the Maghreb (except for Mauritania) FMD is normally absent, however, periodic incursions occur either from the Middle East (Pool 3), West Africa (Pool 5) or more recently from Pool 4.
- There is little or no information on FMD in Chad, the Central African Republic, Equatorial Guinea and Gabon.

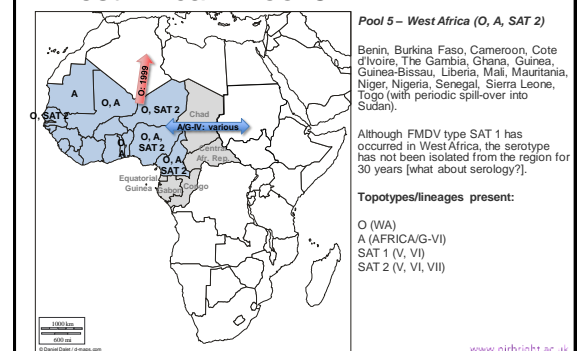
East Africa – Pool 4

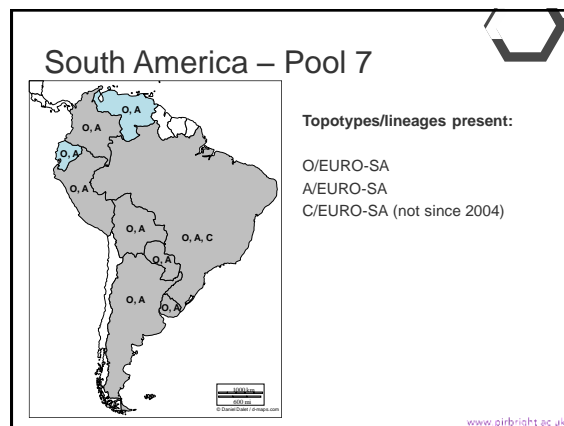
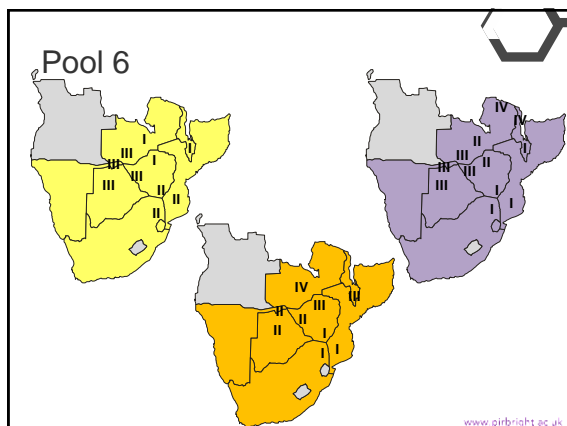
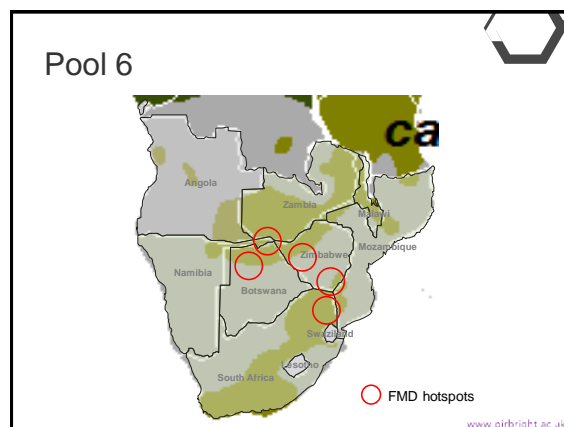
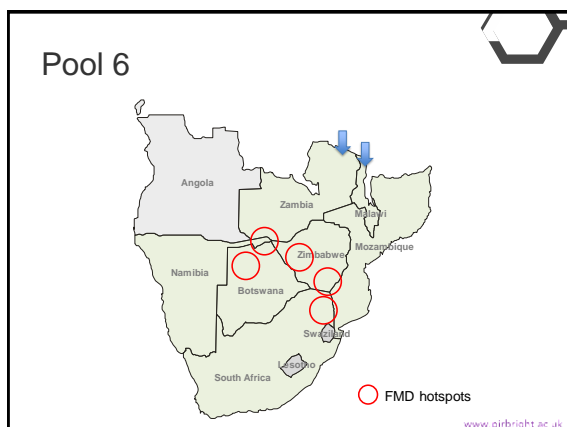
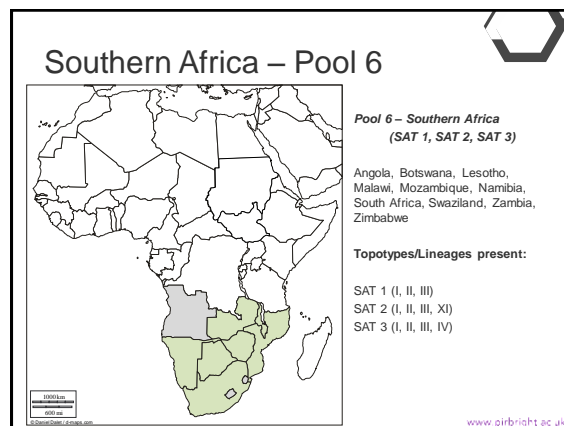
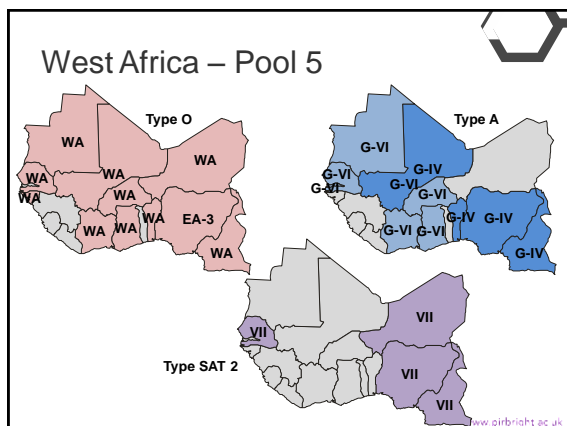


East Africa – Pool 4



West Africa – Pool 5





Questions (1)

- What are the precise mechanisms which result in the generation and expansion of new FMDV variants in Western Asia?
- Are West African buffalo persistently infected with FMDV and if so with which serotypes?
- Does SAT 1 occur in West Africa (not recorded in that region since 1981)?
- Which FMD viruses occur in Chad, Equatorial Guinea, Gabon and the Central African Republic?
- What role do African buffalo play in the maintenance of FMD in East African cattle?

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Questions (2)

- Is FMDV SAT 3 widespread in buffalo herds outside of Southern Africa as serology suggests?
- Why do we see relatively few African-Asian virus transfers?
- No Asia 1 in Africa and few SAT outbreaks in Asia – why?
- Regular transfer of type O viruses from the Horn of Africa to Yemen, but not other serotypes – why?
- Are there any reservoirs of FMDV type C (which has not caused an outbreak since 2004)?

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Acknowledgements

Jemma Wadsworth
Begoña Valdazo-González
Antonello Di Nardo

Valerie Mioulet
Claudia Doel
Miki Madi
Don King
Jef Hammond
David Paton
Nigel Ferris (retired)
Geoff Hutchings (retired)

Keith Sumption
Botswana Vaccine Institute
Lanzhou Veterinary Research Institute
Onderstepoort Veterinary Institute
...and many others...



The Pirbright Bioscience Strategic Funding from BBSRC

defra SE 2939
Department for Environment
Food and Rural Affairs

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European Commission for the
control of foot-and-mouth disease

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