Cross protection against current Asia 1 isolates provided by a high potency Asia 1 Shamir vaccine

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Conclusion and recommendation

- A high potency Asia 1 Shamir vaccine provided protection from current Asia 1 field isolates infection in cattle
- r1 values obtained using pooled vaccinal sera correlated with the in vivo protection results

Vaccine Matching (type Asia 1) 2000-2011

<table>
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r1 values from Asia 1 TUR 49/2011 against Asia 1 Shamir using standard BVS (mean of two tests): 0.20

Asia 1 Shamir Potency Test

Heterologous challenge with Asia 1 TUR 49/2011 in Pirbright on March 2012

- 1 dose
- 1/4 dose
- 1/16 dose
- Unvaccinated controls

Asia 1 Shamir vaccine > 6 PD50

Vaccinates and controls were challenged with FMDV isolate Asia 1 TUR 49/2011 at 21 days post single vaccination.

Serum samples were collected at weekly basis for analysing the immune response.

Clinical scores have been read twice a day post challenge until 9dpc.

Results - PD50

With one inconclusive (culled at 7dpc due to anorexia) gives the vaccine 13.92 PD50
Open Session of the EuFMD: 2012, Jerez de la Frontera, Spain

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Results - VNT

VNT mean log titre

Asia 1 2.26
Shamir 162.3

Asia 1 Tur 1.68
49/11 47.8

Results - ELISA

LPBE titre at 20dpv from all groups

LPBE Asia 1 Shamir 1414.83

LPBE Asia 1 Tur 49/11 1032.75

Results - NSP ELISA

NSP at 20dpv

Results - r1 values

VNT titre from full dose group BVS

Asia 1 Shamir 1032.75

Asia 1 Tur 49/11 1032.75

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