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**WS 9.2 THE FAILURE OF THE CYTOPATHOGENIC BIOTYPE OF BOVINE VIRUS DIARRHOEA VIRUS TO INDUCE IMMUNOTOLERANCE**

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Infection of the bovine fetus with bovine virus diarrhoea (BVD) virus during the early stages of pregnancy can have a severe outcome. There may be abortions, birth of congenitally damaged or persistently viraemic calves. However, all calves born persistently viraemic are infected with only the non-cytopathogenic form (biotype) of BVD virus. There appears to be no documented case of persistence and immunotolerance, following fetal infection, with the cytopathogenic biotype. Nine heifers were selected, that were BVD virus and antibody negative and between 63-107 days pregnant. Five heifers were infected intranasally and, in the remaining 4, the fetus was infected in utero with a cloned isolate of cytopathogenic BVD virus (Pe515c).

There were no abortions and no calves were born with a persistent viraemia. Five live-born calves were rechallenged with the cytopathogenic virus at 6 months of age but none showed evidence of immunotolerance or development of mucosal disease. The significance of the biotypic variation for the development of immunotolerance will be discussed.

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