Research project IZS VE 06/12

Study on the viral excretion in the semen of seronegative breeding bulls undergoing an acute infection caused by the Schmallenberg virus (SBV)

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SBV is an emerging viral disease, very recently described for the first time (Autumn 2011), which poses many questions to the diagnostic laboratory committed to its diagnosis, not only for the troubling procedure that has to be applied for isolating the virus, but also for the lacking knowledge of the behaviour of SBV in susceptible species. At the same time, bull semen is a very challenging biological material, due to

- its inhibitory factors which hamper the isolation procedures on cell monolayers as well as the establishment of a PCR diagnosis;
- the request to certify its freedom from SBV issued by importing countries.

Last but not least, to date only incomplete information are available on the presence of SBV in the semen of infected bulls.

The main objectives of the project are:

- to assess the viral excretion in the semen during and after the viraemia phase in infected bulls using both molecular and conventional techniques;
- to evaluate the to date available PCR protocols (mainly validated for tissue/blood samples) in fresh and extended bull semen samples.