



## IMMUNOLOGY & VACCINOLOGY

IMM-004

### **VACCINATION OF 1 DAY-OLD PIGS WITH A PRRSV MODIFIED LIVE ATTENUATED VACCINE CONFERS PROTECTION UNTIL SLAUGHTER**

M. Fort<sup>1</sup>, M. Balasch<sup>1</sup>, L. Taylor<sup>2</sup>, J. Calvert<sup>2</sup>.

<sup>1</sup>*Zoetis Manufacturing&Research Spain S.L., Vall de Bianya, Spain;* <sup>2</sup>*Zoetis Inc., Kalamazoo, United States.*

#### **Introduction**

Suvaxyn PRRS MLV is the first vaccine licensed in Europe which can be used in 1-day-old pigs. Since the vaccine is intended to be used in a single dose vaccination schedule, it is crucial to ensure protection of the animals from vaccination to slaughter.

The objective of the study was to evaluate the Duration of Immunity (DOI) of Suvaxyn PRRS MLV in pigs vaccinated at 1 day of age by intramuscular route, upon inoculation with a PRRS-1 isolate as a respiratory challenge at 26 weeks post-vaccination.

#### **Materials and methods**

Thirty-eight 1-day-old piglets, born from PRRSV seronegative sows, were divided into two groups. One group (20 pigs) was kept as negative control, and the other group (18 pigs) was vaccinated at 1 day of age with Suvaxyn PRRS MLV. The animals were challenged by IN route with Olot/91 strain 26 weeks after vaccination. Viral load in serum, rectal temperatures, shedding, clinical signs and body weight were evaluated. Nine to ten days after challenge pigs were necropsied and lungs evaluated for macroscopic lesions.

#### **Results**

A protective effect of vaccination was observed since a significant reduction of viral load in serum (3.8 log reduction) and in nasal shedding (1.0 log reduction) was demonstrated, as well as in mean percentage of lung macroscopic lesions (3.7% versus 1.0%).

#### **Conclusions**

Vaccination with a single administration of the Suvaxyn PRRS MLV to 1 day-old seronegative pigs by IM route conferred a duration of immunity of 26 weeks, as seen by the significant reduction on the viral load detected in serum after challenge 26 weeks post-vaccination. Efficacy was also supported by the significant reduction on the percentage of lung lesions at necropsy, as well as the reduction of nasal and oral shedding.