

## **BBD-PP-25**

### **TITLE**

DEVELOPMENT ASSESSMENT OF CRANIOVENTRAL CONSOLIDATION LESIONS IN LUNGS OF PIGS EXPERIMENTALLY INFECTED WITH MYCOPLASMA HYOPNEUMONIAE STRAIN 232

Henrique Meiroz de Souza Almeida<sup>1</sup>, Marina Lopes Mechler-Dreibi<sup>1</sup>, Karina Sonálio<sup>1</sup>, Gabriel Yuri Storino<sup>1</sup>, Maria Eugênia Silveira Ferraz<sup>1</sup>, Igor Renan Honorato Gatto<sup>1</sup>, Marcela Manduca Ferreira<sup>1</sup>, Luís Guilherme de Oliveira<sup>1</sup>

<sup>1</sup> *São Paulo State University (Unesp), School of Agricultural and Veterinarian Sciences, Jaboticabal, São Paulo, Brazil*

### **CONTENT**

Background and Objectives - *Mycoplasma hyopneumoniae* (mhp) is the causative agent of Porcine enzootic Pneumonia (PEP). PEP lesions in lungs are described as cranioventral lobes consolidation of lungs, however development of such lesion still quite unclear. This study assessed the development of consolidation lesions in lungs of experimentally infected pigs' over time. Material and Methods - Four groups of four mhp free piglets (28 days old) were inoculated intracheally with 5mL of 107 CCU/μL of mhp. Animals were clinically evaluated daily and serum samples collected weekly for antibody detection (ELISA). Every 14 days a group of piglets was euthanized and necropsied (GI-14dpi, GII-28dpi, GIII-42dpi and GIV-56 dpi). Lungs were visually assessed and the lesion score (%) for each lobe was summed for the total lung score. Results - Clinical signs of PEP started around 10 dpi and lasted the whole study. Animals of GII, GIII and GIV seroconverted and were positive at the ELISA. GI group presented the lowest mean lesion score (8.92%) and GII had the highest (23.98%). GIII and GIV and 14.17% and 20.31%, respectively. Scar tissue in lungs was noted at GIII and GIV (42 dpi and 56 dpi, respectively). Discussion and Conclusions - Animals of GI did not present antibodies due to the late seroconversion in mhp infections (around 28 days). Cranioventral consolidation lesions caused by mhp showed a sharp increase between GI and GII and dropped in GIII and GIV, being present in all groups. The period of 28 dpi is reported to be the apex of lesion score in experimental infections with mhp. The scar tissue observed in GIII and GIV was probably due to the recovery process started between 28dpi and 42 dpi, corroborating with lesion score decrease. Grant #2016/18697-6, São Paulo Research Foundation (FAPESP).