

## Comparison of pharmacokinetics of tilmicosin in healthy pigs and pigs experimentally infected with *Actinobacillus pleuropneumoniae*

J Xiong<sup>\*</sup>, Q Zhu<sup>\*</sup>, S Yang<sup>\*</sup>, Y Zhao<sup>\*</sup>, L Cui<sup>†</sup>, F Zhuang<sup>‡</sup>, Y Qiu<sup>‡</sup> and J Cao<sup>\*§</sup>

<sup>\*</sup>Department of Veterinary Pharmacology, College of Veterinary Medicine, Huazhong Agricultural University, Wuhan 430070, China

<sup>†</sup>Department of Veterinary Pathology, College of Veterinary Medicine, Huazhong Agricultural University, Wuhan 430070, China

<sup>‡</sup>Hubei Key Laboratory of Animal Nutrition and Feed Science, Hubei Collaborative Innovation Centre for Animal Nutrition and Feed Safety, Wuhan Polytechnic University, Wuhan 430023, China

<sup>§</sup>Corresponding author. E-mail: caojiyue@mail.hzau.edu.cn

**Supplementary Table 1: Mean ( $\pm$  SD) biochemical parameters measured in the serum of pigs prior to inoculation with *Actinobacillus pleuropneumoniae* and immediately before treatment with 20 mg/kg bodyweight tilmicosin (n=6).**

Biochemical parameters	Pre-inoculation	Pre-treatment	P-value
AST (U/L)	54.0 $\pm$ 10.6	62.0 $\pm$ 9.64	0.328
ALT (U/L)	63.4 $\pm$ 9.24	57.7 $\pm$ 3.06	0.350
ALP (U/L)	126.5 $\pm$ 27.9	123.3 $\pm$ 22.8	0.892
BUN (mmol/L)	6.27 $\pm$ 0.36	5.79 $\pm$ 0.27	0.051
TG (mmol/L)	0.35 $\pm$ 0.15	0.34 $\pm$ 0.12	0.902
TC (mmol/L)	1.41 $\pm$ 0.16	1.37 $\pm$ 0.08	0.625
TP (g/L)	66.8 $\pm$ 5.31	62.2 $\pm$ 4.96	0.211
Crea ( $\mu$ mol/L)	116.0 $\pm$ 30.5	125.8 $\pm$ 35.3	0.653
Albu (g/L)	26.9 $\pm$ 3.65	26.9 $\pm$ 3.27	0.974
Glu (mmol/L)	3.34 $\pm$ 1.01	3.29 $\pm$ 0.38	0.925
Ca (mmol/L)	2.31 $\pm$ 0.09	2.22 $\pm$ 0.15	0.268
P (mmol/L)	2.24 $\pm$ 0.22	2.41 $\pm$ 0.23	0.266

Note: AST, aspartate aminotransferase alanine; ALT, alanine aminotransferase; ALP, alkaline phosphatase; BUN, blood urea nitrogen. TG, triglyceride; TC, total cholesterol; TP, total protein; Crea, creatinine; Albu, albumin; Glu, glucose; Ca, calcium; P, phosphorus.

**Supplementary Figure 1. Representative chromatograms of (a) a blank plasma sample, (b) a plasma sample spiked with tilmicosin at the lower limit of quantification (0.05 µg/mL), (c) plasma from an uninfected pig, and (d) an infected pig, 1 hour after administration of tilmicosin. Note tilmicosin peak is detected at the retention time of 9.1 minutes.**

