

## ACUTE PHASE PROTEIN RESPONSE IN PIGS EXPERIMENTALLY INFECTED WITH AFRICAN SWINE FEVER VIRUS

Carpintero R<sup>1</sup>, Alonso C<sup>2</sup>, Iturralde M<sup>1</sup>, Alava MA<sup>1</sup>, Piñeiro A<sup>1</sup>, Lampreave F<sup>1</sup>

<sup>1</sup>*Departamento de Bioquímica y Biología Molecular y Celular, F. Ciencias, Universidad de Zaragoza, Zaragoza, Spain;* <sup>2</sup>*Departamento de Biotecnología, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria, Madrid, Spain. Email: 480532@unizar.es*

### Introduction

Viral infection is a recurrent disease in pigs causing important economic losses. At the present, little is known about acute phase protein (APP) response in infection induced by virus. In this work the response of some APPs, pig-MAP, haptoglobin, C-reactive protein (CRP) and apo A-I have been studied in pigs experimentally infected with African swine fever (ASF) virus.

### Materials and Methods

Seven 3 months old pigs were inoculated intramuscularly with  $5 \times 10^2$  tissue culture infective doses of the high virulent ASF virus. Clinical signs of ASF were monitored daily until day 7 in survivors. Blood samples were collected previously to virulent virus inoculation and at everyday post infection (p.i) since 3 days. Viremia was determined titrating the virus in porcine alveolar macrophages by detection of infected cells using specific antibodies. The concentration of APPs was measured by radial immunodiffusion using specific antiporcine APP antisera.

### Results

Clinical signs of ASF virus (fever, anorexia, lethargy, shivering, cyanosis and recumbency) appeared in the experimental infection since 3-4 days p.i. and these signs progressed until death in all cases. The concentration of APPs showed significant variation with correlated with the severity of disease along days 3 to 6 p.i. Related to day 0 before infection, pig-MAP concentration increased 6-9 times, Hp 3-7 times and apo A-I decreased 4 to almost 10 times in ones of the pigs. Interestingly, CRP did not show significant response, perhaps because of the variability it showed at day 0.

### Conclusion

The response to the African swine fever virus was faster and severe and unleashed the death of the pigs. Our results indicated that response of APPs (with the exception of CRP) followed up the clinical symptoms of the outcome of this viral disease.

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