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# ABSTRACT BOOK

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## P055

### Differential local immune responses against *Haemonchus contortus* in a resistant Brazilian sheep breed (Morada Nova)

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**Background:** Effective mucosal immune response is essential for the development of resistance to *Haemonchus contortus* in sheep. This immune response is predominantly characterized by activation and development of Th2 responses, eosinophilia, mastocytosis and increased IgE and IgG1 levels. However, the immune mechanisms associated to increased host resistance against this parasite remains poorly elucidated.

**Method:** This study was carried out, aiming to better elucidate the immune mechanisms involved on the host resistance against *H. contortus*. Briefly, two groups of ten lambs of Morada Nova Brazilian breed, previously characterized as resistant or susceptible to infection by this parasite, were submitted to challenge with 4000 *H. contortus* L3, and euthanized at 7 days post-infection. Blood samples were collected for blood count, including differential analysis for granulocytes. Fragments from abomasal pyloric and fundic

regions were collected and subjected to relative quantification of gene expression of immune-related mediators (RT-qPCR), and were also evaluated for eosinophils and mast cell counts.

**Results:** Significant higher levels were observed in resistant group for eosinophils counts in fundic abomasal region, occurring the same for erythrocytes, hemoglobin and total leucocytes in the whole blood. Regarding the gene expression results, for the fundic region, increased levels of IL1 $\beta$  and TNF $\alpha$  were found in the susceptible group, while up-regulation of MS4A2 (high affinity IgE receptor, F $\epsilon$  CRI) and IL33 genes were observed in resistant group. Even, TLR2 and CFI transcripts were up-regulated in pyloric region of resistant group.

## P056

### Innate immune responses against *Streptococcus suis* infections in the porcine lung

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*Streptococcus suis* (*S. suis*) is a pathobiontic bacterium endemic in domestic pigs. Virulent strains not only can initiate inflammatory processes in the porcine lung and brain, they also display zoonotic potential. Due to the high homology between human and porcine physiology, pigs are chosen as a biomedical