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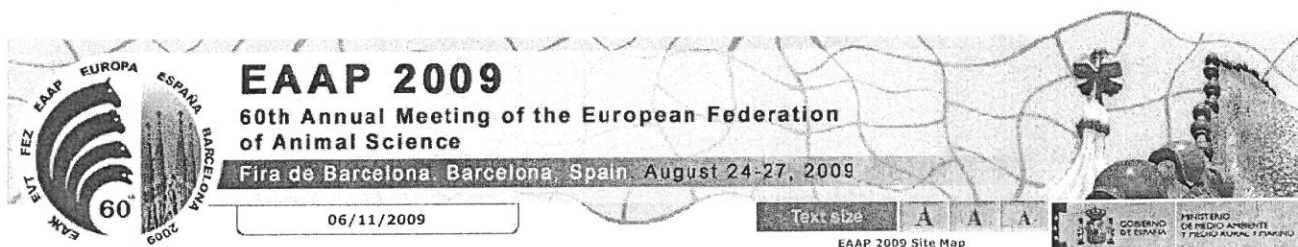
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Mapping of genes involved in *E. coli* and helminth susceptibility in pigs

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E. coli and helminth infections are causing significant health and welfare problems in pig production. The Enterotoxigenic *E. coli* O149, F4ac alone is responsible for more than 30% of the *E. coli* diarrhea cases in piglets. Studies have shown that susceptibility both to specific *E. coli* and helminth types are controlled by the genetic make-up of the pigs. Resource families, where these susceptibility traits are segregating, have been constructed and our data demonstrate that genetic components are involved in resistance to *E. coli* F4ab/ac, *Ascaris* and *Trichuris* infections. Genome scans have been performed in order to locate genomic regions controlling susceptibility in the pig. For *Ascaris* and *Trichuris* infections a total of 197 pigs from 19 full-sip litters have been genotyped for 4890 SNPs and 963330 genotypes are ready for analysis. In relation to *E. coli* F4ac-susceptibility we have narrow down the candidate region to less than 3 Mb around the mucin 4 gene in the q41-region on pig chromosome 13. Haplotyping data of the mucin 4 region using more than 200 SNPs shows a large shared haplotype block on the chromosomes carrying the susceptible allele.



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