

Title	Identification of genetic markers underlying genetic resistance to internal parasites in the Merino Branco sheep breed
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Keywords	Genetic resistance, SNP markers, Illumina OvineHD, Parasites, Sheep
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Summary	<p>The main objective of the project MERINOpasite funded by FCT, is to identify genetic markers associated with resistance to internal parasites in the Portuguese autochthonous sheep breed Merina Branca. By allowing estimating the genetic merit of individual animals regarding resistance to parasites, these markers could be used in the genetic improvement of this breed. We propose to compare resistant and susceptible sheep using the recently available Illumina OvineHD Beadchip technology, which allows analyzing genetic variation at more than 600K SNP in the ovine genome simultaneously. The correlation between phenotype and genotype will be determined using Genome-Wide Association Studies (GWAS) and employ a broad set of phenotypic traits. Post-GWAS analysis will be performed to search for candidate genes and identify biological pathways involved in resistance. Other objectives of the proposal include the epidemiological study and the assessment of anthelmintic resistance of parasites with major impact on sheep production in Portugal.</p>
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Supervision	
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