PROJECT TITLE	Functional genomics of Rhipicephaulus sanguineus - Babesia sp interactions for vaccine development - Proc. 4.4.1.00 CAPES
BRIEF DESCRIPTION	Tick-borne diseases are regarded as emerging infections in the world, both for humans and animals. The brown dog tick *Rhipicephalus sanguineus* has a worldwide distribution, being frequent in tropical and subtropical regions. All stages of this tick prefer dogs as primary hosts, although they can also feed on humans. *Ehrlichia canis B. canis* and *B. gibsoni* are transmitted by *R. sanguineus* having a significant economic, medical, and veterinary impact worldwide. To date no commercial vaccine against those diseases is available.
OBJECTIVES	During this study we have as main objectives the identification of *R. sanguineus* genes related to infection process based on a transcriptomic study. The involvement of these genes in the infection will be confirmed by silencing using the RNA interference. From theses assays possible vaccine candidate antigens will be selected
IMPLEMENTION	Recombinant proteins coding to the genes identified will be in the future tested as antigens during vaccination trials performed in dogs. Is expected to select those antigens with higher protective behaviour against ticks and diseases.
FUNDING AGENCY	Fundação para a Ciência e a Tecnologia (FCT) / Fundação Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES)
DURATION	2014-2015
PRINCIPAL INVESTIGATOR	Ana Domingos (GHTM/IHMT)
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