Diversity panel of the caprine *TMEM154* gene and its relation to the susceptibility to caprine lentivirus - Sider L.H.[1*], Pinheiro R.R.[1], Andrioli A.[1], Facó O.[1], Silva K.M.[1], Monteiro J.P.[1], Shiotsuki L.[1], Santiago L.B.[1]

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Small ruminant lentiviruses belong to the Retrovirus family and the Lentivirus genus. Caprine arthritis-encephalitis (CAE) is a disease that affects goats of all age groups resulting, in adult animals, in arthritis, mastitis and chronic interstitial pneumonia. In kids, it may result in neurological symptoms. CAE also causes significant production losses, frequently leading to death. The transmission is through the ingestion of milk and colostrum from infected females, but horizontal transmission also occurs. A promising tool for control of the disease is the selection of animals resistant to the disease. The ovine *TMEM154* gene was associated with a decreased susceptibility to ovine lentivirus. It is unclear whether the gene *TMEM154* has the same importance in goats and, if it does, which are the associated mutations. Therefore, two major steps should be done to elucidate that: build a diversity panel of the *TMEM154* gene in goats, and perform an association study between this gene and the clinical/serological status of the host. This is a proposal of a program to be articulated and submitted in the early future that will accomplish at least the construction of the diversity panel. It will aim to build a DNA bank from multiple animals from various breeds, ages and sexes, and perform *TMEM154* genotyping by Sanger and/or nextgen sequencing. An association study could also be performed in case-control matched samples submitted to goat chips. A proven association between *TMEM154* and the infection could lead to its application to the marker assisted selection.

Key-words: lentivirus, *TMEM154*, genotyping

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