EVALUATION OF SYNTHETIC PEPTIDES IDENTIFIED BY *PHAGE DISPLAY* FOR DIAGNOSIS OF VISCERAL LEISHMANIASIS

Coelho, E.A.F.[1,2], Moreira, R.S.M.[1], Oliveira, D.M.[1], Machado, C.M.T.[1], Ribeiro, C.C.[1], Lara, V.P.[1], Alves, D.C.R.[1], Baratta, J.A.[1], Lima, M.P.[1], Tavares, C.A.[1], Chávez-Olórtegui, C.[1]

1. Departamento de Bioquímica e Imunologia, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais, Minas Gerais, Brazil;

2. Setor de Patologia Clínica, Coltec, Universidade Federal de Minas Gerais, Minas Gerais, Brazil.

Leishmaniasis is a parasitic disease that affects over 12 million people worldwide. Visceral Leishmaniasis (VL) is caused by *Leishmania chagasi* in the Americas. Dogs are considered important parasite reservoirs and it is essential to develop effective diagnosis markers for infection in these animals. Classic diagnostic methods are, usually, limited by low sensitivity, therefore, there is a need to develop a more rapid and simple assay. Screening *Phage Display* libraries of peptides has proven to be a powerful technology for selecting peptides with biological and physicochemical properties from huge molecular libraries. In this work, *Phage Display* was used to selecting peptides that presenting high affinity to specific antibodies (IgGs) purified of sera samples of dogs with active VL. Results indicates that two peptides were able to recognized sera samples of dogs with active VL In the next step, these peptides would are evaluated in relation to sensibility and specificity to differentiate asymptomatic dogs, dogs living in endemic areas and infected dogs, with the purpose to compose a diagnostic kit to diagnosis for VL.

Key words: Phage Display, Canine Visceral Leishmaniasis, serological diagnosis, Libraries.

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