

for the serogroups Icterohaemorrhagiae (62.3%), Grippotyphosa (22.2%), Canicola (13.3%), Djasiman (2%) and Pomona (2.2%). The f risk factors identified were: age from 49 to 72 months (odds ratio = 2.74), Age > 72 months (odds ratio = 3.22), and monthly cleaning of the environment where the animals are kept (odds ratio = 10.7). **Conclusion:** It is concluded that dogs attended in private veterinary clinics in João Pessoa, Paraíba, Brazil are exposed to infection by *Leptospira* sp. with predominance of serogroups maintained by wild animals. It is suggested that the cleaning frequency of the environment where the animals live should be improved. **CEUA:** This experiment was approved and performed under the guidelines of Ethics Committee for Animal Protocol Use of Federal University of Campina Grande (Protocol No. 010.2016).

43. PRODUCTION OF LEPTOSPINAL IMMUNOGLOBULIN-LIKE PROTEINS FUSED TO ZZ AND/OR R DOMAINS AND/OR HIV-1 TAT PROTEIN

Produção de proteínas semelhantes à imunoglobulina leptospiral fundidas às proteínas ZZ e/ou domínios R e/ou do HIV-1 TAT

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Introduction: Leptospirosis is a zoonotic disease caused by pathogenic spirochetes of the genus *Leptospira* which colonize the renal tubules of wild or domestic animals and are released to the external environment in urine. The development of a vaccine is very important, since the control of carrier animals is difficult. Some vaccines are being used, but they promote protection only against the serotypes present in the preparation and fail to induce long-term immunity. The LigA and LigB proteins are able to induce immunoprotection against leptospirosis, however, it didn't confer sterilizing immunity. **Objectives:** The aim of this study was the cloning, expression, purification and structural characterization of recombinant LigA and LigB proteins fused to the ZZ domain of protein A from

Staphylococcus aureus, R domain of diphtheria toxin and the TAT protein of the HIV virus. **Methods:** The LigAC, LigBC (carboxy-terminal portion) and LigBN (amino-terminal portion) were cloned into the expression vector pCP by *SLICE Cloning* technique. The recombinant proteins were expressed in *E. coli* and purified by affinity chromatography and analyzed by circular dichroism spectroscopy. The antigenicity of fusion proteins was evaluated by *ELISA* using sera from hamsters immunized with purified recombinant proteins. **Results:** Each purified recombinant protein showed a major band with expected molecular mass and the structural integrity revealed a predominant b-sheet secondary structure. Robust antibody responses against recombinant proteins were detected in hamsters by *ELISA* analysis. The vaccine potential of these fusion proteins will be tested in challenge studies using hamster model. **Conclusions:** The purification and refolding process was successfully obtained. It is expected that this approach may contribute to increase the immunogenicity of the recombinant proteins through the increased efficiency of antigen presentation processes to the immune system in order to provide a sterile immunization. **CEUA:** 7643121115. **Funding:** FAPESP 2015/19445-8, CNPq and Butantan Foundation.

44. RESEARCH OF ANTIBODIES AND DNA OF LEPTOSPIRA SPP. IN BOVINE FETUSES NON-ABORTED COLLECTED IN SLAUGHTERHOUSE

Pesquisa de anticorpos e DNA de *Leptospira* spp. em fetos bovinos não abortados coletados em matadouro

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Introduction: Leptospirosis in production animals is characterized by reproductive interference such as infertility, birth of weak calves, stillbirths and abortions, the latter due to infection of the fetus by *Leptospira*, leading to the death of the animal and its elimination, being possible the bacteria detection in samples of these abortions.