

technique for determining the cellular localization of proteins to *Leptospira* spp. **Methods:** Four recombinant proteins, previously predicted by reverse and structural vaccinology as surface proteins, as well as three flagellar proteins, were produced. From these, it was produced polyclonal antibodies, which were used in the localization of leptospiral proteins. Leptospirae were subjected to immunofluorescence analysis with methanol, immunofluorescence in agarose beads and surface immunofluorescence. **Results:** The immunofluorescence in agarose beads confirmed the localization of LigB, LipL32 and LcpA as surface exposed proteins; and the surface immunofluorescence erroneously identified the location of FcpA, a bacterial flagellar component, as a surface protein. **Conclusion:** The approach based on the encapsulation of leptospirae in agarose microdroplets, although needing further improvement, provided promising results for determining the cellular localization of proteins in *L. interrogans*. **CEEA/UFPEL:** n° 4336-2015. **Funding:** Capes, CNPq.

### 33. MARSUPIALS AS MAINTENANCE HOSTS OF PATHOGENIC LEPTOSPIRES IN PARANAÍBA RIVER'S VALLEY, GOIÁS AND MINAS GERAIS STATES, BRAZIL

Marsupiais como hospedeiros de manutenção de leptospiras patogênicas no Vale do Rio Paranaíba, estados de Goiás e Minas Gerais, Brasil

MOREIA, R. Q.;<sup>1,2</sup> RAMOS, V. N.;<sup>3</sup> VIEIRA, R. F.;<sup>1</sup> MANGUEIRA, R. A. F.;<sup>4</sup> PIRES, B. C.;<sup>5</sup> LIBONATI, H.;<sup>5</sup> LILENBAUM, W.;<sup>5</sup> LIMA, A. M. C.<sup>2</sup>

<sup>1</sup>Veterinary Medicine Course, Instituto Master de Ensino Presidente Antônio Carlos (Imepac) Araguari/MG, Brazil.

<sup>2</sup>Laboratory of Infectious and Contagious Diseases, School of Veterinary Medicine (Famev), Universidade Federal de Uberlândia (UFU), Brazil.

<sup>3</sup>Laboratory of ixodology, Universidade Federal de Uberlândia (UFU), Brazil.

<sup>4</sup>Department of Physical Sciences, School of Agriculture Luiz de Queiros (Esalq), Universidade de São Paulo (USP), São Paulo/SP, Brazil.

<sup>5</sup>Laboratory of Veterinary Bacteriology, Universidade Federal Fluminense (UFF), Niterói/RJ, Brazil.

E-mail: annalimauf@yahoo.com.br

**Introduction:** Small non-flying mammals hold the largest number of species within the Mammalia class in Brazil. Mainly rodents and marsupials, important

reservoirs hosts of pathogenic serovars of leptospirae, represent this group of animals. **Objective:** The aim of this study was to identify the frequency of wild marsupial carriers of pathogenic leptospirae in three different areas of the Paranaíba river's valley, Brazil.

**Methods:** Two campaigns were carried out to capture marsupials, one at the end of the rainy season and another at the end of the drought. Eight traps of the Tomahawk, and 116 traps of the Sherman types were used, baited with banana slices covered with peanut flour. PCR assays were performed to detect the lipL32 gene in renal tissue of marsupials captured in three distinct areas along the Paranaíba river's valley: Low Paranaíba (Ipiaçu/MG, 18.7770833S; 49.8978889W); Middle Paranaíba (Goianira/GO, 18,1630556S; 48,1354722W); and High Paranaíba (Guimarânia/MG, 18.8101944S, 46.6755278W). It was applied the non-parametric chi-square association test to verify the significance of the association of the factors studied. The procedures performed were authorized by CEUA-UFU under protocol number 151/16. **Results:** Thirty-nine specimens belonging to the Marsupialia order were captured, and of these, 14 (35.89%) presented the lipL32 gene in their renal tissues at the PCR. The Middle Paranaíba area had a higher frequency of renal carriers (9/14) than Alto Paranaíba (3/17) and Lower Paranaíba (2/8), with p = 0.0086. **Conclusion:** Marsupials presented as pathogenic leptospire maintainers in the Paranaíba river's valley. The Middle Paranaíba's area was characterized as the one of greater challenge to the marsupials by pathogenic leptospirae. **CEUA:** 151/16 **Funding:** Fapemig, mostly in own resources.

### 34. MOLECULAR COMPARISON OF FOUR VIRULENCE-RELATED GENES IN LEPTOSPIRAL STRAINS OF ICTEROHAEMORRHAGIAE SEROGROUP

Comparação molecular de quatro genes relacionados à virulência nas estirpes leptospirais do sorogrupo Icterohaemorrhagiae

CORREIA, L.;<sup>1</sup> MALLIAGROS, L. V.;<sup>1</sup> PIRES, B. C.;<sup>1</sup> BRASIL, T.;<sup>1</sup> JAEGER, L. H.;<sup>1</sup> CARVALHO-COSTA, F. A.;<sup>2</sup> LILENBAUM, W.<sup>1</sup>

<sup>1</sup>Laboratory of Veterinary Bacteriology, Microbiology and Parasitology Department, Universidade Federal Fluminense (UFF), Niterói/RJ, Brazil.