

Leish142- *Leishmania chagasi* immunosensor piezoelectric using recombinant antigen immobilized in nanogold nafion film

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Introduction: Visceral leishmaniasis (VL) is among the main neglected diseases around the World, and the detection of specific antibodies to *Leishmania sp* and effective diagnostics of VL is of fundamental importance with regard to the efficient and appropriate treatment of the disease and quality of life of the patient, becoming a challenge for the scientific community. **Material and Methods:** Exploring the properties of nanomaterials, an immunosensor sensitive, rapid and selective was developed for diagnosis of VL. Nafion polymer was used to modify the electrode surface of quartz-crystal, acting as a platform for linked-gold nanoparticles on gold surface of the piezoelectric crystal. The *L. infantum* (rLci2B-NH6) recombinant antigen was previously immobilized on self-assembled monolayers (SAM) on the surface of gold nanoparticles, and then added to the nafion film. **Results:** The proposed immunosensor reacted well to VL canine serum showing good linearity $r = -0.98899$ ($p < 0.0001$, $n = 4$), with a low relative error = 5 %, **Conclusions:** The results obtained indicate that it may be a promising alternative tool for the diagnosis of VL, being able to distinguish positive and negative canine serum to *L. infantum*. **E-mail:** Joiramoss@gmail.com