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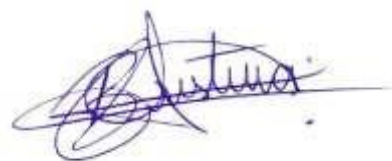
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Postdoc Scientific Report

Composition of the Telomerase Ribonucleoprotein complex of *Leishmania major*
and *Leishmania infantum* with different genetic backgrounds

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Composition of the Telomerase Ribonucleoprotein complex of *Leishmania major*
and *Leishmania infantum* with different genetic backgrounds

Relatório de Pós-doutorado realizado na
Universidade Estadual Paulista (UNESP)
no Instituto de Biociências, Câmpus de
Botucatu.

Supervisora: Profa. Dra. Maria Isabel
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Project abstract

Among the *Leishmania* genus are the causative agents of leishmaniasis, a neglected disease to which there are no effective treatment, control, and prevention. Therefore, it is important to find new parasite-specific therapeutic targets. Telomeres have been recently considered potential targets due to their role in maintaining genome stability and maintenance. The minimal parasite's telomerase components TERT (telomerase reverse transcriptase) and TER (telomerase RNA) were already described and partially characterized. Preliminary results from our group showed that the parasite orthologue of HSP90, HSP83, forms part of the telomerase complex and probably regulates enzyme activity and telomere length. We intend to identify other components of the complex using *Leishmania* with different genetic backgrounds. Co-immunoprecipitation and pull-down assays besides of chromatographic and proteomics methods such as mass spectrometry will be used. The validation of the interactions will be confirmed using biochemistry and molecular genetics. The identification of some partners may enhance our comprehension of the biogenesis of the *Leishmania* ribonucleoprotein complex and help to develop an interaction network that controls the parasite's telomere length.