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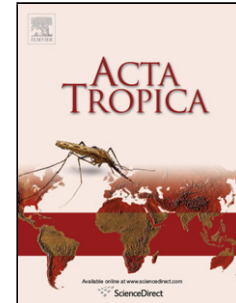
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“Recent advances in Genetics and Molecular Diagnosis of Parasitic Protozoa”.

Molecular diagnosis of *Trypanosoma cruzi*

Review Article

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**Abstract:** Chagas disease, caused by the kinetoplastid protozoan *Trypanosoma cruzi*, affects millions of people, most of them neglected populations. The different phases of the disease, the transmission mode and the high genetic variability of the parasite determine that molecular detection methods display different degree of success. Molecular diagnostic tests may be employed during epidemiological surveys of transmission, for early diagnosis of congenital transmission and acute infections due to oral transmission, transfusion or transplantation routes, reactivation due to immunosuppression and monitoring of treatment response in chronically infected patients receiving trypanocidal chemotherapy. This manuscript summarizes the most widely used molecular tools to detect *T. cruzi* infection in different epidemiological and clinical scenarios.

**Keywords:** Chagas disease, *Trypanosoma cruzi*, quantitative Real Time PCR,

loop-mediated isothermal amplification, molecular diagnosis, discrete typing units.

**1.Introduction** Chagas disease (CD), caused by *Trypanosoma cruzi* is most likely “the most neglected of the neglected diseases” [WHO, 2012]. It has been treated as an endemic disease in tropical and subtropical areas of Southern and Central America, Mexico and Southern United States [Garcia MN et al., 2017], and is an

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