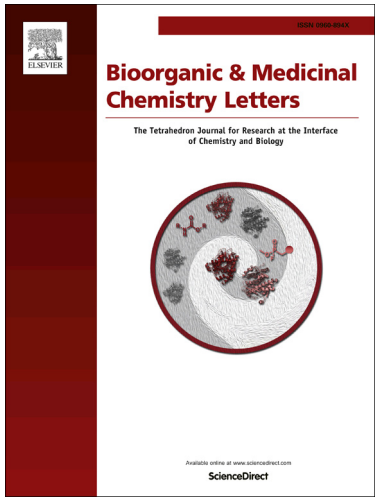

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Synthesis and Evaluation of Novel Prenylated Chalcone Derivatives as Anti-leishmanial and Anti-trypanosomal Compounds

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Abstract: Chalcones form a class of compounds that belong to the flavonoid family and are widely distributed in plants. Their simple structure and the ease of preparation make chalcones attractive scaffolds for the synthesis of a large number of derivatives enabling the evaluation of the effects of different functional groups on biological activities. In this paper, we report the successful synthesis of a series of novel prenylated chalcones via Claisen – Schmidt condensation and the evaluation of their effect on the viability of the Trypanosomatidae parasites *Leishmania amazonensis, Leishmania infantum* and *Trypanosoma cruzi*.

Keywords: Prenylated chalcone; leishmanicidal activity; trypanocidal activity; *Leishmania amazonensis*; *Leishmania infantum*; *Trypanosoma cruzi;* drug discovery

Neglected Tropical Diseases (NTDs) have a higher prevalence in tropical and subtropical regions and affect more than one billion people worldwide[1]. A list of 17 NTDs[2] includes the insect vector-borne diseases leishmaniasis and Chagas´ disease. Leishmaniasis is a widespread disease caused by parasites belonging to more than 20 species of *Leishmania*, which are transmitted by phlebotomine sandflies after injection of promastigote forms into mammals during feeding. These infective stages