

Synthesis and Biological in vitro and in vivo Evaluation of 2-(5-Nitroindazol-1-yl)ethylamines and Related Compounds as Potential Therapeutic Alternatives for Chagas Disease

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© 2018 Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim Chagas disease, a neglected tropical disease caused by infection with the protozoan parasite *Trypanosoma cruzi*, is a potentially life-threatening illness that affects 5–8 million people in Latin America, and more than 10 million people worldwide. It is characterized by an acute phase, which is partly resolved by the immune system, but then develops as a chronic disease without an effective treatment. There is an urgent need for new antiprotozoal agents, as the current standard therapeutic options based on benznidazole and nifurtimox are characterized by limited efficacy, toxicity, and frequent failures in treatment. In vitro and in vivo assays were used to identify some new low-cost 5-nitroindazoles as a potential antichagasic therapeutic alternative. Compound 16 (3-benzyloxy-5-nitro-1-vinyl-1H-indazole) showed improved efficiency and lower toxicity than benznidazole in both in vitro and in vivo experiments, and its trypanocidal activit