Evaluation of the novel antichagasic activity of [1,2,3]triazolo[1,5-a]pyridine derivatives

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 Trypanosoma cruzi is the causative agent of Chagas disease. This parasite is vulnerable to the effects of ROS as its main defense mechanism against exogenous agents trypanothione is also another weakness of the parasite that investigated related to the inhibition of enzymes belonging P450 system, mainly CYP51. In our group we have synthesized a series of triazoles known as [1,2,3]triazolo[1,5-a]pyridyl ketones, and pyridyl ketones. These families have shown interesting structural features due to the presence of electron withdrawing moieties attached to the main heterocycle (triazoles and/or pyridines) and are proposed as potential target in the parasite, by the presence of the carbonyl group being able to be reduced and form a free radical that could interact with molecular oxygen generating ROS in the parasite. Furthermore, the triazole ring and pyridines have been considered as potent inhibitors of sterol biosynthesis, the lock being part CYP51. Our