



Novel Bipyridine Ionic Liquids Activity against *Toxoplasma gondii* Infection *In Vivo*

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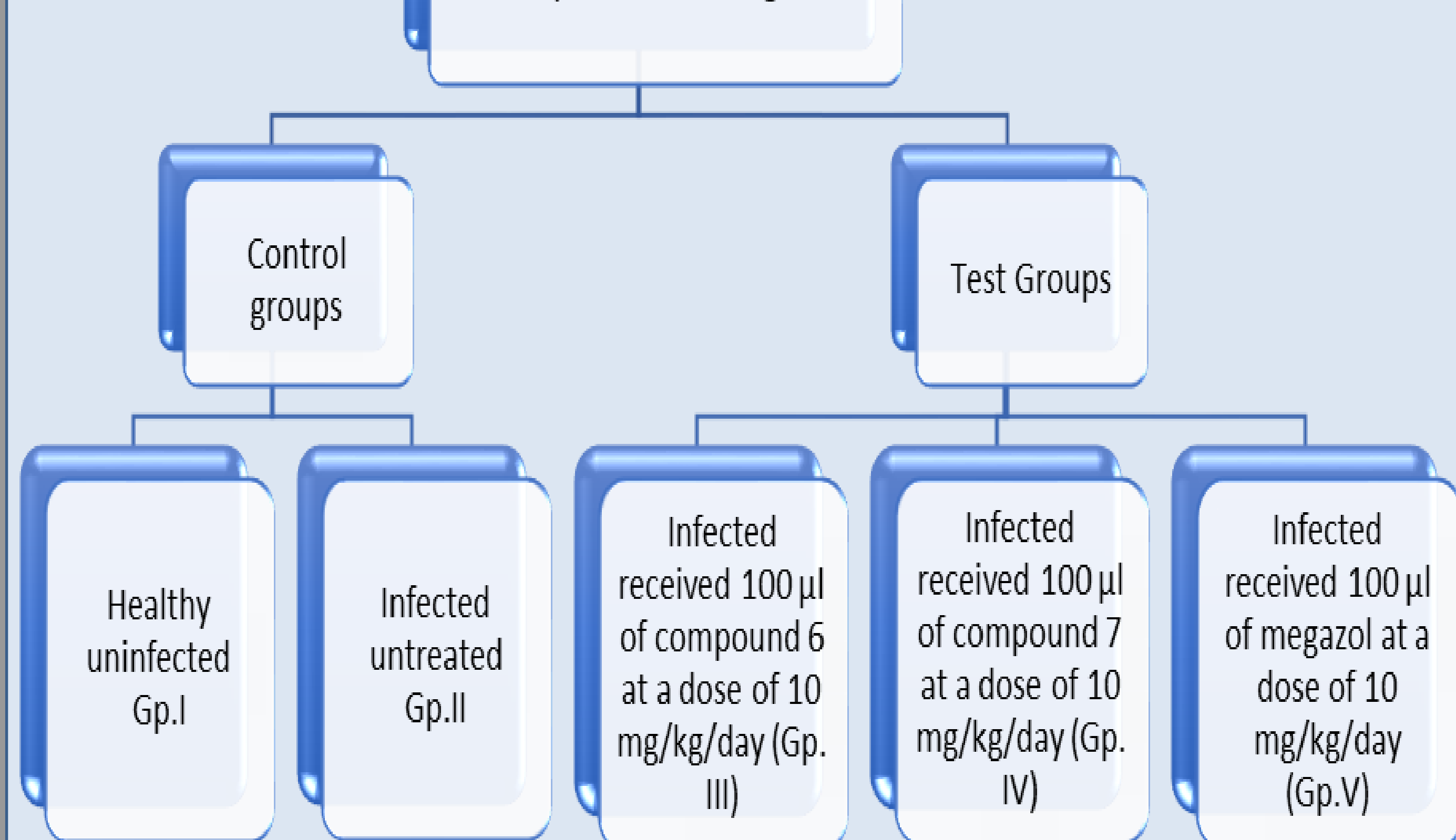
Introduction

Toxoplasma gondii is an obligate intracellular parasite that can spread to all warm-blooded vertebrates, including humans, causing a disease called toxoplasmosis [1,2]. One third of the world's population is suffering from toxoplasmosis [3]. The *T. gondii* infection chain ideally begins with the ingestion of oocysts (from a cat's faeces or undercooked meat), followed by the release of sporozoites and bradyzoites from the ingested oocysts to invade intestinal cells, where they are converted into tachyzoites.

Materials and Methods

1. Synthesis of the Targeted Compounds
2. Spectroscopic Characterization of the Targeted Compounds
3. In vivo acute toxicity study to assess the safe dose
4. Parasite
 - 4.1. Drugs Preparation
 - 4.2. Animal Grouping and Experimental Design
 - 4.3. Estimation of the Parasite Count
 - 4.4. Parasite Percent Reduction (%R)
 - 4.5. Morphological Study of *T. gondii* Tachyzoites
 - 4.6. Inflammatory Biomarkers
 - 4.7. Histopathological Study
 - 4.8. Mode of Action of the Tested Compounds using Molecular Docking

Experimental design

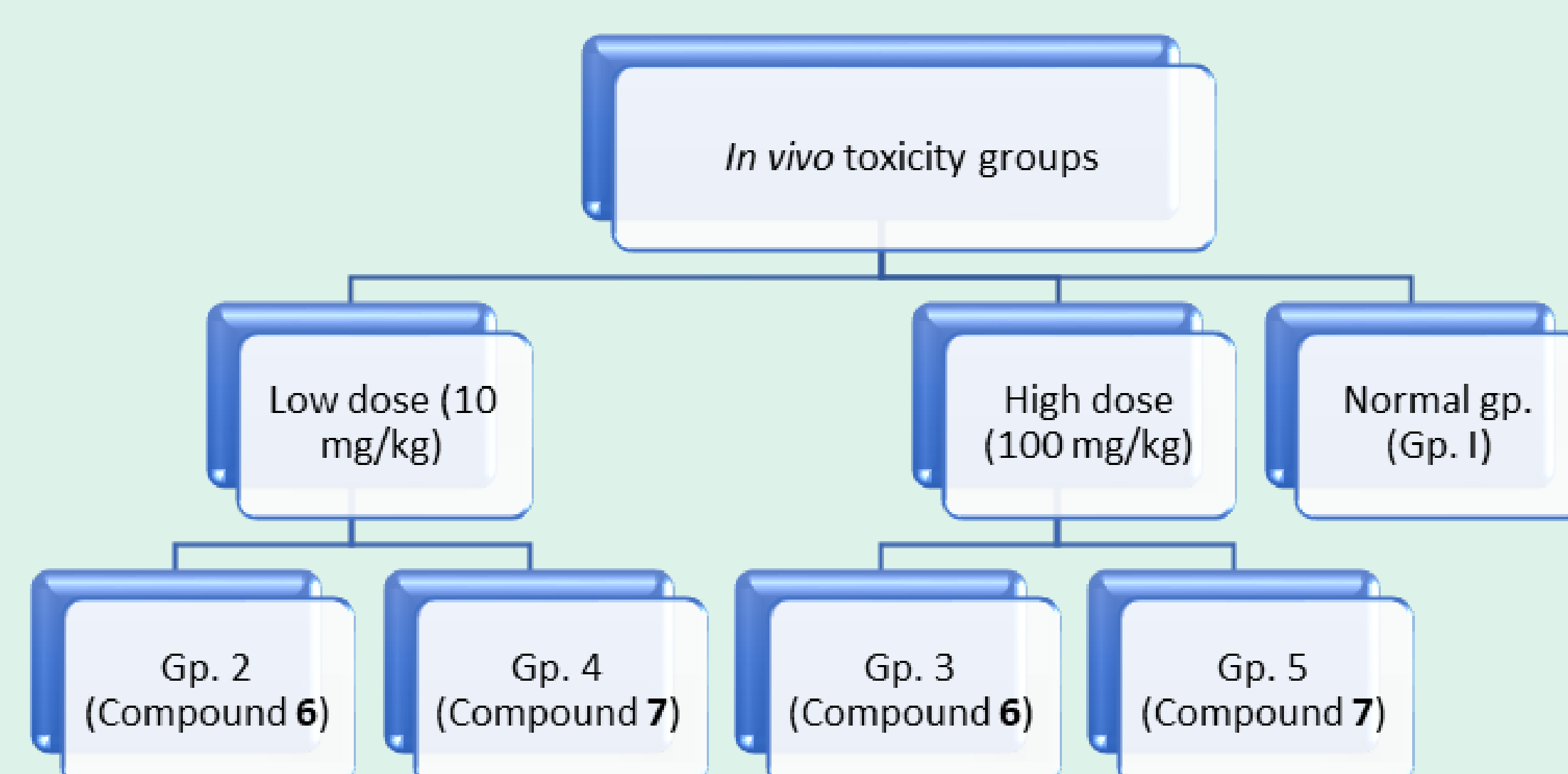


References

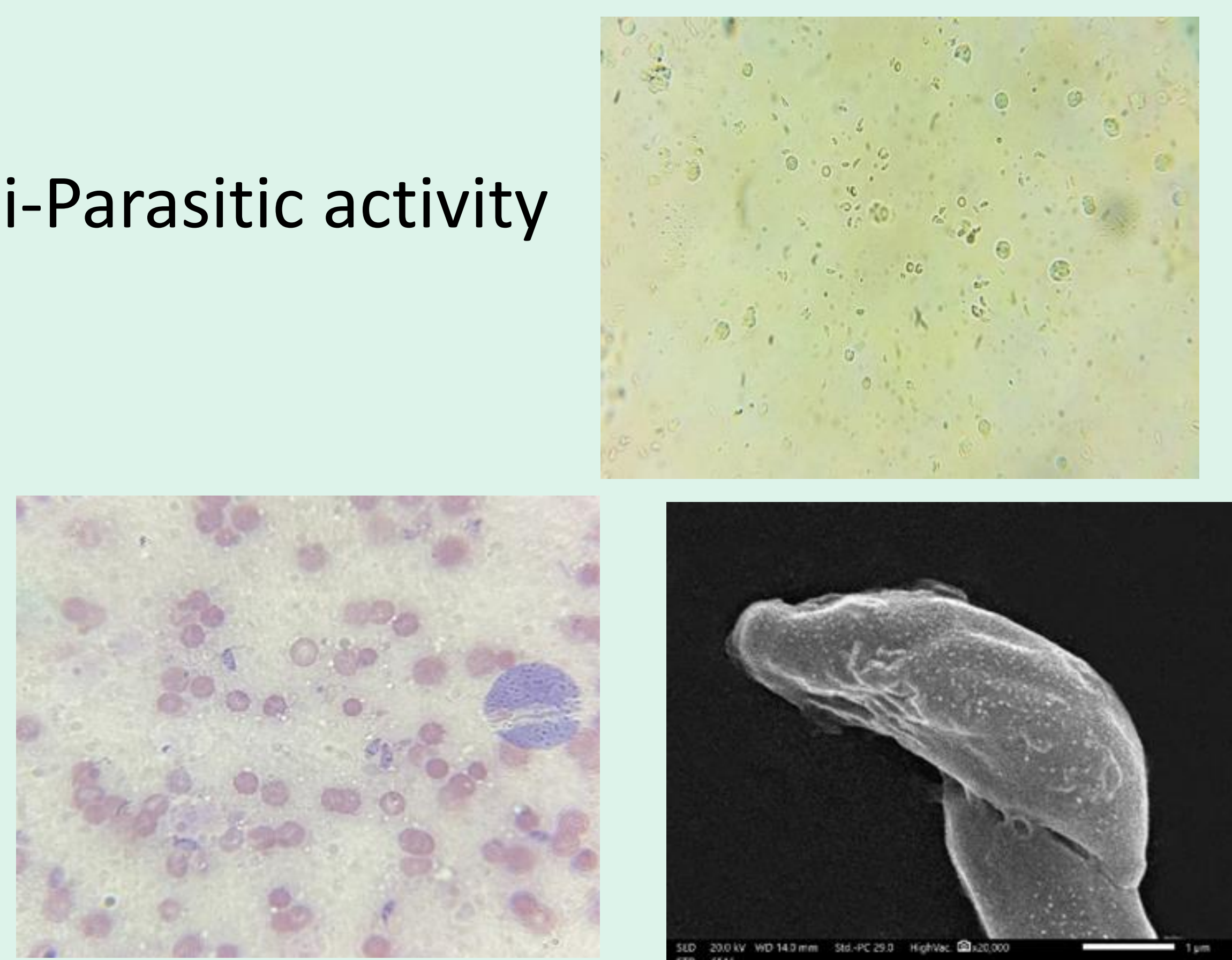
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2. Almutairi, T. M., Rezki, N., Aouad, M. R., Hagar, M., Bakr, B. A., Hamed, M. T., Elwakil B.H & Moneer, E. A. Exploring the Antiparasitic Activity of Tris-1, 3, 4-Thiadiazoles against *Toxoplasma gondii*-Infected Mice. *Molecules*, 2022, 27(7), 2246.

Results

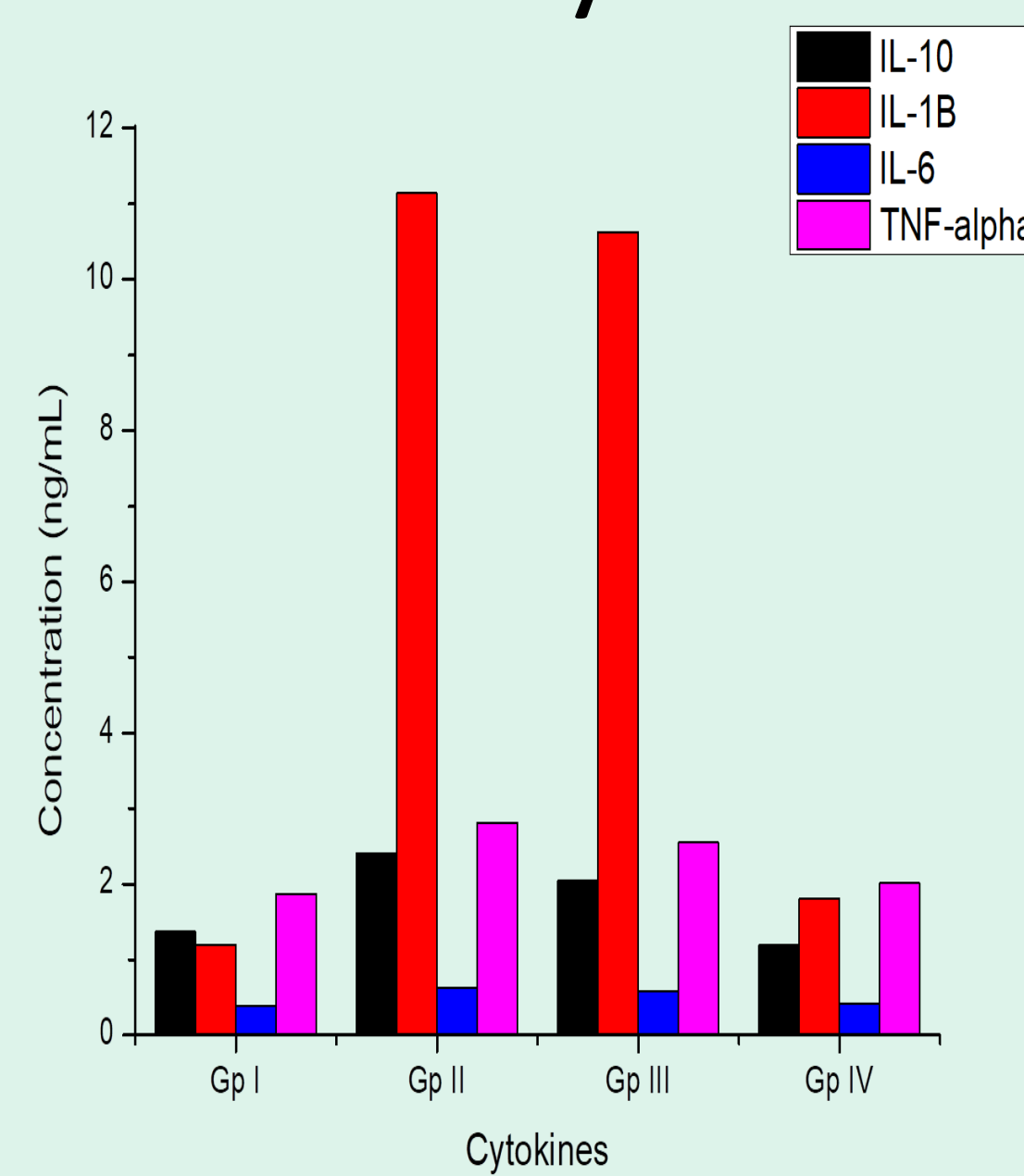
* In vivo acute toxicity study to assess the safe dose



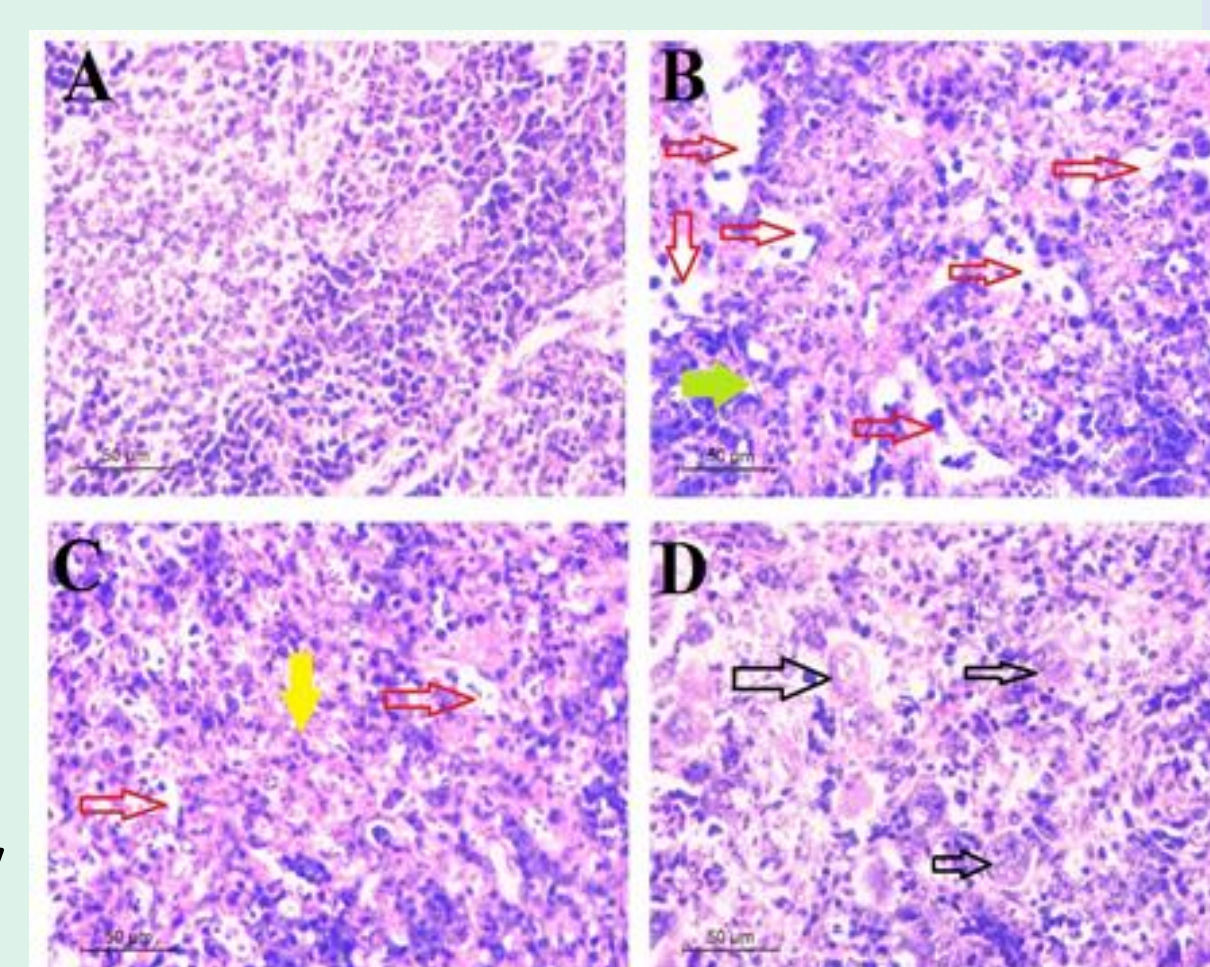
* Anti-Parasitic activity



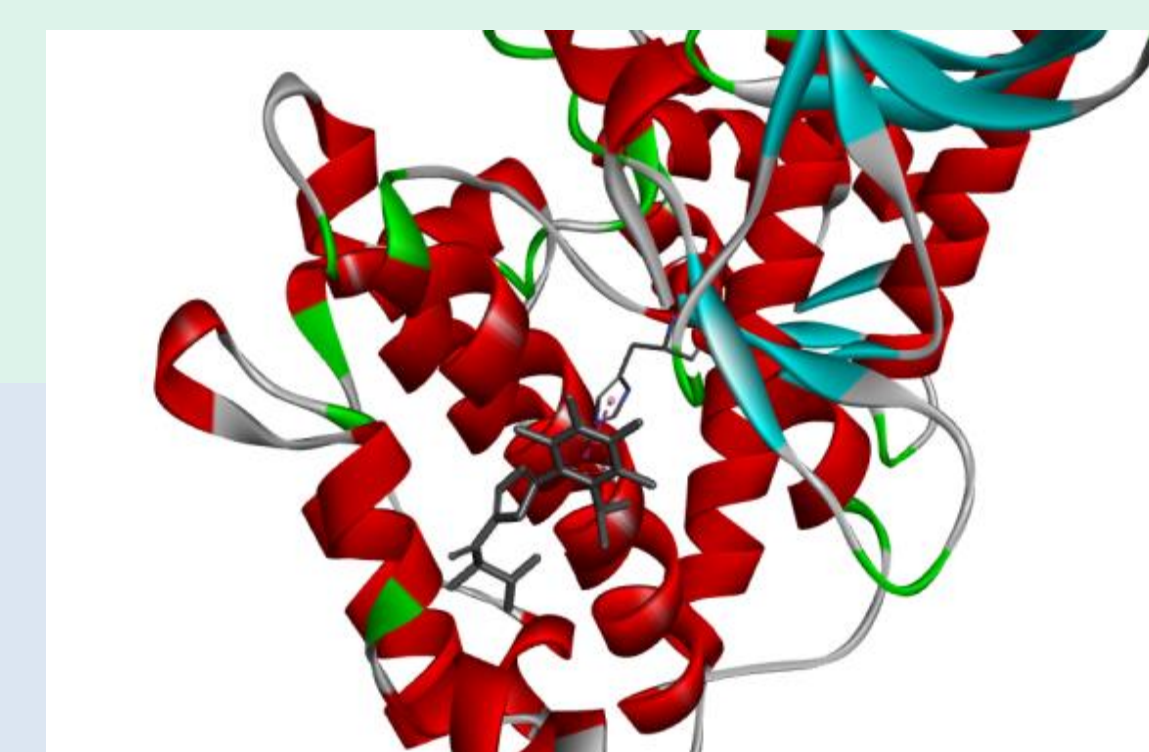
* Inflammatory Biomarkers



* Histopathological Study



* Mode of Action of the Tested Compounds using Molecular Docking



Conclusions

