

ANTISCHISTOSOMAL STRUCTURE-ACTIVITY RELATIONSHIP OF PYRIDAZINYLBENZAMIDES

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Abstract

Schistosomiasis (or bilharzia) is a neglected tropical disease caused by the blood-dwelling flukes of the genus *Schistosoma*. It afflicts more than 240 million people in the tropics and subtropics, causing roughly 70 million disability-adjusted life years (DALYs). Schistosomiasis is regarded as the third most devastating tropical disease worldwide and it is a major cause of morbidity and mortality in Africa, South America, the Middle East, Asia and the Caribbean.¹ Approximately, 779 million people are at risk of infection, resulting in 280, 000 deaths annually.² Worldwide, there are six species of schistosomes that affect human beings. *Schistosoma mansoni*, *S. haematobium*, *S. guineensis*, *S. intercalatum*, *S. japonicum* and *S. mekongi*.³ Of all these species, the clinically relevant species are *S. mansoni*, causing hepatic and intestinal schistosomiasis; *S. haematobium* causing the urogenital form of the disease; and *S. japonicum*; causing hepatosplenic and intestinal schistosomiasis.^{2,3} *Schistosoma* species are distinguished by differences in their morphology, both in their eggs and their parasitic stages. Additionally, species distinction is made by the species of intermediate host snails that support transmission of the parasite.² Figure 1 below shows the geographical distribution of different human-infecting schistosome species.

Biography

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