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Titolo Gene function in schistosomes : recent advances towards a cure / /

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Sommario/riassunto Schistosomes are human parasites distributed worldwide in tropical

and sub-tropical latitudes, especially in developing countries and impoverished regions. These neglected tropical disease (NTD)

pathogens causes debilitating illnesses, which include hepatosplenomegaly, hepatic fibrosis, haemorrhagic necrotic ulcerations in the intestinal mucosa, urogenital tract diseases, in addition to cardiopulmonary, renal and neurologic lesions due to egg accumulation in the liver, intestines, uro-genital tissues and other sites. Urogenital schistosomiasis is a risk factor for bladder cancer and increases the risk of transmission of HIV infection. Despite extensive effort to control this NTD over the years, deployment on a considerable scale of commercially available drugs in endemic populations has induced the emergence of resistant isolates and raised the need to identify new targets for alternative therapies. Because of the availability of genomes of the three major species of human schistosomiasis, and through advances in functional genomics and live imaging, studies on

adaptations to parasitism and developmental biology of trematodes and cestodes, and indeed flatworms and Lophotrochozoans, at large.

schistosomes have now come into focus as models to investigate

This Research Topic aims at gathering state-of-art essays on schistosome genetics, genetics, pathobiology and immunobiology. It also aims to highlight advances in understanding of the host-parasite relationship, in paradigms that address this NTD, and to discuss new perspectives and advances in chemotherapy and immunoprophylaxis.