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**Dashun Xu\*** (dxu@math.siu.edu), 1245 Lincoln Drive, Carbondale, IL 62901, and **Zhilan Feng**, 150 N. University Street, West Lafayette, IN 47907-2067. *On the role of age-targeted treatments in the evolution of drug resistant schistosome.*

Recent biological evidence shows that the fitness of schistosome parasites in definitive hosts may be inversely related to their fitness in intermediate hosts. Using the evidence we study age-targeted treatments of human hosts on how drug-resistant parasites may evolve. The dynamics of the parasite population is basically governed by a system of ordinary differential and integral equations, and the existence and stability of the boundary equilibria for this system are used to infer the impact of age-targeted treatments on the evolutionary dynamics of schistosome parasites. (Received August 04, 2008)