IN VITRO STUDIES ON THE INTERACTION BETWEEN CELLS OF THE AMEBOCYTE-PRODUCING ORGAN (APO) OF *BIOMPHALARIA* AND ESPOROCYTES OF *SCHISTOSOMA MANSONI*

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Biomphalaria glabrata and *Biomphalaria tenagophila* snails are major hosts for the trematoda *Schistosoma mansoni*, the causative agent of human schistosomiasis. Besides the stringent physiological and biochemical compatibility between host and parasite, the success or failure of the infection will be dependent on the mobilization of the molluskan internal defense system, where a major role will be played by circulating hemocytes produced by the its amebocyte-producing organ (APO). A methodology for the establishment of primary cultures of the APO of *Biomphalaria* has been previously developed. APO cells in culture from two susceptible (*B. glabrata* from Belo Horizonte/MG and *B. tenagophila* from Cabo Frio/RJ) and one resistant (*B. tenagophila* from Taim/ RS) strain were challenged with esporocytes of *S. mansoni*. Migration towards the esporocytes as well as proliferation and differentiation of the APO cells were observed *in vitro*, after cell-parasite contact. The esporocytes reacted with ameboid movements that were clearly much more intense in the case of the resistant strain (*B. tenagophila*- Taim).These results provided additional evidence of the participation of the APO cells in the molluskan defense system. Experiments are in progress to further investigate the mechanisms involved in the innate immune response of *Biomphalaria*.

Key words: *Biomphalaria*, APO, innate immunity, cell culture, tissue culture, *Schistosoma mansoni*

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