Characterization of Chilean, Bolivian, and Argentinian Trypanosoma cruzi populations by restriction endonuclease and isoenzyme analysis

Solari, A.

Muñoz, S.

Venegas, J.

Wallace, A.

Aguilera, X.

Apt, W.

Brenière, S. F.

Tibayrenc, M.

Ninety-one Chilean, 15 Bolivian, and 9 Argentinian Trypanosoma cruzi stocks, isolated from various hosts and vectors, were characterized by schizodeme analysis with EcoRI and MspI endonucleases. The three major similar pattern groups that emerged from this sample correlated with results of isoenzyme analysis. This result confirms previous work and supports the hypothesis of the clonal structure of natural populations of T. cruzi, fully defined at the level of isoenzyme analysis, quantitative kinetoplast DNA restriction fragment length polymorphism, and kinetoplast DNA hybridization analysis. In Chile, sylvatic and domestic cycles of T. cruzi transmission appear to be mainly independent: genetically different families of natural clones are specific to these cycles. Nevertheless, the possibility of overlap remains unclear. Results described here indicate that natural clones inhabiting Chilean regions appear genetically related to the natural clones identified in neighboring countries. In