

Both methods facilitate the identification of samples quickly and accurately, and have been used for large-scale field studies. The results of these studies and the respective advantages and disadvantages of the 2 methods will be discussed.

(51) The Human African Trypanosomiasis: interactions between the tsetse fly, its secondary symbiont *Sodalis glossinidius*, and the parasite.

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Tsetse flies transmit African trypanosomes, the causative agents of sleeping sickness in human and Nagana in animals. This disease affects many people with considerable impact on public health and economy in sub-Saharan Africa, while trypanosomes resistance to drugs is rising. *Sodalis glossinidius*, a symbiont of tsetse flies, is considered to be involved in vector competence. In a former study no direct correlation was found between the presence of *S. glossinidius* and the ability of the insect to acquire *Trypanosoma congolense*. However, *Glossina palpalis gambiense* and *Glossina morsitans morsitans* were shown to harbour genetically distinct populations of *S. glossinidius*, suggesting that vector competence for a given trypanosome species could be linked to the presence of specific genotypes of the symbiont rather than a mere presence / absence. In order to assess this hypothesis, *Glossina palpalis* individuals were fed on blood infected with either *Trypanosoma brucei gambiense* (T.b.g.) or *Trypanosoma brucei brucei* (T.b.b.) species, and the genetic diversity of *S. glossinidius* strains isolated from dissected flies was investigated using AFLP markers. Correspondence between occurrence of these markers and parasite establishment was analysed using multivariate analysis. We demonstrated that the distribution of *S. glossinidius* strains from T.b.g.-infected flies differed strongly from those from T.b.b.-infected individuals. Some AFLP markers were shown to be significantly linked to the ability of T.b.g. or T.b.b. to establish in the *Glossina* midgut. This suggests the differential presence of *Sodalis* genotypes to influence parasite establishment and could explain variations in *Glossina* vector competence in the wild. The markers identified may be useful to assess prevalence of *Sodalis* genotype facilitating establishment of parasite species, and to develop novel risk-management strategies.

(52) Microsatellite EmsB, a relevant tool to explore the genetic diversity of *Echinococcus multilocularis* at different geographical scales

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