

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Names and details of isolation for *Trypanosoma vivax* clinical strains used in this study and descriptive statistics for their genome sequences.

File Name: Supplementary Data 2

Description: Index of VSG COGs and phlotypes, showing the membership of each (by individual 'type sequences') and the distribution of each across strains and locations.

File Name: Supplementary Data 3

Description: Descriptions of *T. vivax* transcriptomes created from blood samples extracted at peak parasitaemia during experimental infections.

File Name: Supplementary Data 4

Description: Names and details of isolation for African trypanosome parasite strains of which genome sequences were used in this study.