

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: scRNA-seq sample metrics, multiplet identification and variable genes.

File Name: Supplementary Data 2

Description: Analysis of WT differentiating *T. brucei*: cluster marker genes (identified with MAST; adjusted p-value < 0.05 and mean log FC > 0.25), associated GO term enrichment (two-tailed Fisher's exact test p-values and Benjamini adjusted p-values), genes differentially expressed during WT differentiation (identified by associationTest; p-value < 0.05 and FC > 2) and associated GO term enrichment two-tailed Fisher's exact test p-values and Benjamini adjusted p-values).

File Name: Supplementary Data 3

Description: Cell cycle analysis of slender form *T. brucei*: genes differentially expressed during the WT slender cell cycle (identified by associationTest; p-value < 0.05 and FC > 2).

File Name: Supplementary Data 4

Description: Analysis ZC3H20 KO *T. brucei*: cluster marker genes (identified with MAST; adjusted p-value < 0.05 and mean log FC > 0.25), genes differentially expressed during the branched differentiation trajectory of WT and ZC3H20 KO parasites (identified by associationTest; p-value < 0.05 and FC > 2), genes differentially expressed early during differentiation (identified by earlyDETest; p-value < 0.05 and FC > 2).